



RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT

FOR THE

SOUTH STOCKTON COMMERCE CENTER

DECEMBER 2024

Prepared for:

City of Stockton
345 N. El Dorado Street
Stockton, CA 95202

Prepared by:

De Novo Planning Group
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D e N o v o P l a n n i n g G r o u p

A Land Use Planning, Design, and Environmental Firm



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RECIRCULATED DRAFT EIR

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INTRODUCTION

The City of Stockton, as the lead agency, determined that the proposed project, South Stockton Commercial Center Project (SSCC) is a "project" within the definition of CEQA. CEQA requires the preparation of an environmental impact report (EIR) prior to approving any project, which may have a significant impact on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]).

The EIR contains a description of the Project, description of the environmental setting, identification of Project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of Project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This EIR identifies issues determined to have no impact or a less than significant impact, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the Notice of Preparation (NOP) were considered in preparing the analysis in this EIR.

PROJECT DESCRIPTION

The proposed Project site is comprised of 422.22 acres located in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport. The Project site is located west of the 99 Frontage Road and State Route (SR) 99 and east of Airport Way. The Union Pacific Railroad (UPRR) extends south from Airport Way bisecting the western portion of the site. French Camp Slough extends southeast from Airport Way across the southwestern portion of the site. It continues east under the UPRR and then south across the southwestern portion of the site, before continuing south off-site.

The SSCC Project proposes a Tentative Map for the 422.22-acre site to create 13 development lots, two basin lots, one park lot, one open space lot, one sewer pump station lot, and off-site sewer improvements. Of the 13 development lots, 12 will be for development of a mix of industrial uses and one will be for development of commercial uses. Although a Site Plan is not currently proposed, for planning purposes a conceptual site plan was prepared to establish a target Floor Area Ratio (FAR) that was used to generate the maximum square footage of building area for the Tentative Map and for purposes of environmental review. As described in Chapter 2.0, Project Description, the Project would result in a maximum of 6,091,551 square feet of industrial type land uses, 140,350 square feet of commercial land uses, 54 acres of open space, 41 acres of public facilities, and 18 acres of right-of-way circulation improvements.

Although the proposed SSCC Project is consistent with the site's existing General Plan and Zoning designations, due to limitations caused by the floodway along French Camp Slough and the location of drive entrances for surrounding developments, the alignment of the future Commerce Drive requires a General Plan Amendment and Rezone of the two areas between Airport Way and the Union Pacific Railroad right-of-way. These areas are currently designated Commercial and Industrial and are zoned CG (Commercial, General) and IL (Industrial, Light), respectively. The current

boundaries of the designations will be modified to be consistent with the future Commerce Drive right-of-way center line. The area to the north of the Commerce Drive right-of-way centerline will be designated Commercial and zoned CG and the area to the south of the Commerce Drive right-of-way centerline will be designated Industrial and zoned IL.

The principal objective of the proposed Project is to implement and achieve the goals and objectives of the General Plan through the approval and subsequent implementation of the SSCC Project. The development of approximately 422-acres of land will include industrial uses, commercial uses, open space, public facilities, and public roadway right-of-way land uses and meet the objectives of the General Plan.

AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

This Draft EIR addresses environmental impacts associated with the proposed Project that are known to the City of Stockton, were raised during the NOP process, or raised during preparation of the Draft EIR. This Draft EIR discusses potentially significant impacts associated with aesthetics and visual resources, agricultural resources, air quality, biological resources, cultural and tribal resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and population, noise, public services, transportation and circulation, and utilities.

The City of Stockton received written comment letters on the NOP for the proposed Project. Copies of those letters are provided in Appendix A of this Draft EIR. The commenting agency/citizen is provided below. The City also held a public scoping meeting on October 26, 2020. No written or verbal comments were provided at that scoping meeting.

- California Air Resources Board;
- California Department of Conservation, Division of Geology and Mines;
- California Department of Conservation, Division of Land Resource Protection;
- California Department of Justice;
- California Department of Transportation;
- California Water Board. Central Valley Regional Water Quality Control Board;
- Center for Biological Diversity;
- Delta-Sierra Group;
- Marvin Norman;
- Native American Heritage Commission; and
- San Joaquin Valley Air Pollution Control District.

ALTERNATIVES TO THE PROPOSED PROJECT

The CEQA Guidelines require an EIR to describe a reasonable range of alternatives to the Project or to the location of the Project which would reduce or avoid significant impacts, and which could feasibly accomplish the basic objectives of the proposed Project. Three alternatives to the proposed Project were developed based on input from City staff and the technical analysis performed to

identify the environmental effects of the proposed Project. The alternatives analyzed in this EIR include the following three alternatives in addition to the proposed Project.

- **No Project (No Build) Alternative:** Under this alternative, development of the Project site would not occur, and the Project site would remain in its current existing condition.
- **Reduced Project Alternative:** Under this alternative, the proposed Project would be developed with the same types of commercial, industrial, open space, and public facility uses as described in the Project Description, but the commercial and industrial square footage would decrease by 25 percent, the amount of open space would decrease by 25 percent, and the amount of developed land would decrease by 25 percent.
- **Agriculture Protection Alternative:** Under this alternative, the proposed Project would be developed in such a way to protect some of the on-site Important Farmland by reducing the overall footprint of the developed areas to a greater extent than the Reduced Project Alternative.

Alternatives are described in detail in Chapter 5. Table ES-1 provides a comparison of the alternatives using a qualitative matrix that compares each alternative relative to the other Project alternatives.

TABLE ES-1: COMPARISON SUMMARY OF ALTERNATIVES TO THE PROPOSED PROJECT

<i>ENVIRONMENTAL ISSUE</i>	<i>NO PROJECT (NO BUILD) ALTERNATIVE</i>	<i>REDUCED PROJECT ALTERNATIVE</i>	<i>AGRICULTURE PROTECTION ALTERNATIVE</i>
Aesthetics and Visual Resources	Less (Best)	Slightly Less (3rd Best)	Less (2nd Best)
Agricultural Resources	Less (Best)	Slightly Less (3rd Best)	Less (2nd Best)
Air Quality	Less (Best)	Less (2nd Best)	Equal (3rd Best)
Biological Resources	Less (Best)	Slightly Less (3rd Best)	Less (2nd Best)
Cultural and Tribal Resources	Less (Best)	Slightly Less (3rd Best)	Less (2nd Best)
Geology and Soils	Less (Best)	Slightly Less (2nd Best)	Equal (3rd Best)
Greenhouse Gases, Climate Change and Energy	Less (Best)	Less (2nd Best)	Equal (3rd Best)
Hazards and Hazardous Materials	Less (Best)	Equal (2nd Best)	Equal (3rd Best)
Hydrology and Water Quality	Less (Best)	Slightly Less (3rd Best)	Less (2nd Best)
Land Use and Population	Greater (3 rd Best)	Equal (Best)	Equal (2nd Best)
Noise	Less (Best)	Slightly Less (2nd Best)	Equal (3rd Best)
Public Services	Less (Best)	Equal (2nd Best)	Equal (3rd Best)
Transportation and Circulation	Less (Best)	Less (2nd Best)	Equal (3rd Best)
Utilities	Less (Best)	Less (2nd Best)	Equal (3rd Best)

GREATER = GREATER IMPACT THAN THAT OF THE PROPOSED PROJECT

LESS = LESS IMPACT THAN THAT OF THE PROPOSED PROJECT

EQUAL = NO SUBSTANTIAL CHANGE IN IMPACT FROM THAT OF THE PROPOSED PROJECT

As shown in the table, the No Project (No Build) Alternative is the environmentally superior alternative. However, as required by CEQA, when the No Project (No Build) Alternative is the environmentally superior alternative, the environmentally superior alternative among the others must be identified. Therefore, the Reduced Project Alternative and Agriculture Protection Alternative both rank higher than the proposed Project. The Reduced Project Alternative would have equal impacts in three areas, slightly less impacts in seven areas, and less impacts in four areas. The Agriculture Protection Alternative would have equal impacts in nine areas and less impacts in five

areas. Therefore, the Reduced Project Alternative would be the next environmentally superior alternative. It is noted that neither the Agriculture Protection Alternative nor the Reduced Project Alternative fully meet all of the Project objectives that is to develop 422-acres of land for industrial uses, commercial uses, open space, public facilities, and public roadway right-of-way.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

In accordance with the CEQA Guidelines, this EIR focuses on the significant effects on the environment. The CEQA Guidelines defines a significant effect as a substantial adverse change in the physical conditions which exist in the area affected by the proposed Project. A less than significant effect is one in which there is no long or short-term significant adverse change in environmental conditions. Some impacts are reduced to a less than significant level with the implementation of mitigation measures and/or compliance with regulations.

The environmental impacts of the proposed Project, the impact level of significance prior to mitigation, the proposed mitigation measures and/or adopted policies and standard measures that are already in place to mitigate an impact, and the impact level of significance after mitigation are summarized in Table ES-2.

TABLE ES-2: PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
AESTHETICS AND VISUAL RESOURCES			
Impact 3.1-1: Project implementation may result in substantial adverse effects on scenic vistas and resources or substantial degradation of visual character.	SU	<i>None feasible.</i>	SU
Impact 3.1-2: Project implementation may substantially damage scenic resources within a State Scenic Highway.	LS	<i>None required.</i>	--
Impact 3.1-3: Project implementation may result in light and glare impacts.	PS	<p>Mitigation Measure 3.1-1: The approved site plan shall conform with the most recent version of the California Green Building Standards Code (California Code of Regulations, Title 24, Part 11) adopted by the City of Stockton at the time of site plan approval, including compliance with Section 5.106.8, which establishes mandatory requirements for outdoor lighting systems of nonresidential development that are designed to minimize the effects of light pollution.</p> <p>The approved site plan shall comply with the applicable provisions of the Stockton Municipal Code pertaining to lighting, including Sections 16.36.060(B) and 16.32.070, which require exterior lighting to be shielded and directed away from adjoining properties and public rights-of-way. Compliance shall be documented in a photometric (lighting) plan or other documentation acceptable to the City.</p> <p>New structures, landscaping, and site improvements shall conform with Section 5.02 of the City of Stockton Design Guidelines.</p>	LS
AGRICULTURAL RESOURCES			
Impact 3.2-1: The proposed Project has the potential to result in the conversion of Farmlands, including Prime Farmland and Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses.	PS	<p>Mitigation Measure 3.2-1: Prior to the conversion of Important Farmland on the Project site, the Project applicant shall participate in the City's Agricultural Lands Mitigation Program, under which developers of the property shall contribute agricultural mitigation land or shall pay the Agricultural Land Mitigation Fee to the City. Participates in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) that results in agricultural land mitigation may also be considered as the functional equivalent of mitigation for the loss of Important Farmland.</p>	SU

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

PS – potentially significant

B – beneficial impact

SU – significant and unavoidable

<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
Impact 3.2-2: The proposed Project may involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use	LS	<i>None required.</i>	--
AIR QUALITY			
Impact 3.3-1: Project operations would result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment, or conflict or obstruct implementation of the District's air quality plan.	PS	<p>Mitigation Measure 3.3-1: Prior to the issuance of the first building permit, the applicant/developer shall demonstrate compliance with the SJVAPCD Rule 9510 (Indirect Source Review) to reduce growth in both NOx and PM10 emissions, as required by SJVAPCD and City requirements.</p> <p>Mitigation Measure 3.3-2: Architectural and industrial coatings (e.g. paints) applied shall be consistent with the Volatile Organic Compound (VOC) content limits set by the San Joaquin Valley Air Pollution Control District (SJVAPCD) or the current edition of the California Green Building Standards Code (CALGreen), whichever is most restrictive. Developer or tenant is not required to exercise control over materials painted offsite.</p> <p>Mitigation Measure 3.3-3: Prior to building occupancy, employers with 100 or more eligible employees shall submit an Employer Trip Reduction Implementation Plan (ETRIP) to the City for review and approval, as required by SJVAPCD Rule 9410. A copy of the ETRIP shall be provided to the SJVAPCD. Employers shall facilitate participation in the implementation of the ETRIP by providing information to its employees explaining methods for participation in the Plan and the purpose, requirements, and applicability of Rule 9410.</p> <p>Mitigation Measure 3.3-4: The project shall comply with SJVAPCD Rule 4101, which prohibits emissions of visible air contaminants to the atmosphere and applies to any source operation that emits or may emit air contaminants.</p>	SU

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

PS – potentially significant

B – beneficial impact

SU – significant and unavoidable

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	RESULTING LEVEL OF SIGNIFICANCE
		<p>Mitigation Measure 3.3-5: Each developer of an individual specific development proposal shall prepare the subject building structures in such a way to accommodate future solar panels pursuant to applicable Building Code requirements.</p> <p>The building permit application for facilities that are able to accommodate future solar panels must demonstrate that sufficient power will be provided from clean energy sources for the operational base power use at the start of operations. Developers shall have the following options, or any combination of options, for procuring clean energy to meet operational base power needs for new building structures. Options may include 1) installing solar panels on the subject building or building site, and/or 2) procuring 100% clean energy from AVA Community Energy, and/or 3) participating in California's Community Solar Program, and/or 4) any other option that results in at least equal amounts of generation and/or procurement of clean energy as options (1) through (3), and that is first approved by the City and the San Joaquin Valley APCD.</p> <p>Operational base power is defined as the amount of power required to supply loads for all ordinary operational uses of the site. Loads for all ordinary operational uses of the site include, as non-exhaustive examples, loads for minimal heating for fire sprinklers, primary office space lighting, HVAC, warehouse power, warehouse lighting, site lighting, minimum power for dock positions (including chargers for yard equipment and any plug-ins for transport refrigeration units), and the amount of light-duty electric vehicle supply equipment required by CalGreen code. Loads for all ordinary operational uses of the site exclude, as non-exhaustive examples, loads for specialized equipment, non-standard automation or material handling systems, and chargers for heavy-duty trucks.</p> <p>Mitigation Measure 3.3-6: To facilitate the installation of future electric vehicle charging stations for heavy-heavy duty (HHD) trucks, in connection with each individual development proposal, the subject building improvement plans shall identify an area (or areas) for future HHD truck charging stations and the subject developer shall install conduit from the power source to the identified area(s), as feasible.</p>	

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		<p>Mitigation Measure 3.3-7: All forklifts, yard trucks, and other equipment used for on-site movement of trucks, trailers, and warehoused goods, as well as landscaping maintenance equipment used on the site, shall be electrically powered or zero-emission, unless new technology is determined to be commercially unavailable or infeasible to utilize.</p> <p>Mitigation Measure 3.3-8: Truck Idling Restrictions: Owners, operators or tenants shall be required to make their best effort to restrict truck idling onsite to a maximum of three minutes, subject to exceptions defined by California Air Resources Board in the document: "Commercial Vehicle Idling Requirements," July 2016. Idling restrictions shall be enforced by highly-visible posting at the site entry, posting at other on-site locations frequented by truck drivers, conspicuous inclusion in employee training and guidance material and owner, operator or tenant direct action as required.</p> <p>Mitigation Measure 3.3-9: Provide EV charging stations for automobiles per the CalGreen building code, and provide conduit to a future designated area for Heavy Duty Turck Charging Facility.</p> <p>Mitigation Measure 3.3-10: Project Operations, Food Service: Owners, operators or tenants shall establish locations for food or catering truck service and cooperate with food service providers to provide consistent food service to operations and their employees.</p> <p>Mitigation Measure 3.3-11: Project Operations, Employee Trip Reduction: Owners, operators or tenants shall provide employees transit route and schedule information on systems serving the project area and coordinate ridesharing amongst employees.</p> <p>Mitigation Measure 3.3-12: Yard Sweeping: Owners, operators or tenants shall provide periodic (e.g. twice daily, as feasible) yard and parking area sweeping to minimize dust generation.</p> <p>Mitigation Measure 3.3-13: Diesel Generators: Owners, operators or tenants shall prohibit the use of diesel generators, except in emergency situations, in which case such</p>	

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		<p>generators shall have Best Available Control Technology (BACT) that meets CARB's Tier 4 emission standards.</p> <p>Mitigation Measure 3.3-14: Truck Emission Control: Owners, operators or tenants shall ensure that trucks or truck fleets domiciled at the project site be model year 2014 or later and maintained consistent with current CARB emission control regulations.</p> <p>Mitigation Measure 3.3-15: Tenants/Operators shall enroll in the United States Environmental Protection Agency's SmartWay Program, as feasible. Proof of enrollment shall be given to the Community Development Department prior to issuance of a Certificate of Occupancy of a Building Permit for the facility.</p> <p>Mitigation Measure 3.3-16: Designated Smoking Areas: Owners, operators or tenants shall ensure that any outdoor areas allowing smoking are at least 25 feet from the nearest property line.</p> <p>Mitigation Measure 3.3-17: Qualifying facilities shall be constructed in compliance with the most current edition of all adopted City building codes, including the adopted Green Building Standards Code. Prior to the issuance of building permits, the applicant/developer of the qualifying facility(ies) shall demonstrate (e.g., provide building plans) that the proposed buildings are designed and will be built consistent with those codes.</p> <p>Mitigation Measure 3.3-18: All tenant lease agreements for the project site shall include a provision requiring the tenant/lessee to comply with all applicable requirements of the MMRP, a copy of which shall be attached to each tenant/lease agreement.</p>	
Impact 3.3-2: Proposed Project construction activities would result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment, or conflict or obstruct implementation of the District's air quality plan.	PS	<p>Mitigation Measure 3.3-19: SJVAPCD Regulation VIII Compliance: Construction plans and specifications shall include a Dust Control Plan incorporating the applicable requirements of Regulation VIII, which shall be submitted to the SJVAPCD for review and approval prior to beginning construction in accordance with the requirements of Regulation VIII.</p>	SU

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		<p>Mitigation Measure 3.3-20 Construction Worker Trip Reduction: Project construction plans and specifications will require contractor to provide transit and ridesharing information for construction workers.</p> <p>Mitigation Measure 3.3-21: Construction Meal Destinations: Project construction plans and specifications will require the contractor to establish one or more locations for food or catering truck service to construction workers and to cooperate with food service providers to provide consistent food service.</p> <p>Mitigation Measure 3.3-22: To reduce impacts from construction-related diesel exhaust emissions, the Project shall utilize the cleanest available off-road construction equipment, including the latest tier equipment (recommended by SJVAPCD).</p>	
Impact 3.3-3: The proposed Project has the potential to expose sensitive receptors to substantial pollutant concentrations.	PS	<p>Mitigation Measure 3.3-23: Prior to the approval of individual phases of development (i.e. final maps, improvement plans, site plan review, etc.), each project applicant shall ensure that individual project characteristics are consistent with the assumptions made within the final proposed Project Health Risk Assessment (HRA). If any of the characteristics of individual phases of Project development are more intensive with regards to the risks associated with the toxic air contaminants assumed within the final proposed Project HRA, individual phase-specific HRAs shall be developed for each individual phase of development where such an inconsistency occurs. The intent is that each phase of development would demonstrate that the individual project does not exceed the applicable SJVAPCD health risk thresholds. If any of the SJVAPCD health risk thresholds for an individual project is exceeded, the project applicant shall develop additional mitigation to ensure that the individual project does not exceed the applicable SJVAPCD health risk thresholds.</p>	LS
Impact 3.3-4: The proposed Project would not cause exposure to other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LS	None required.	--
BIOLOGICAL RESOURCES			

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Impact 3.4-1: The proposed Project has the potential to have a direct or indirect effect on special-status invertebrate species.	LS	<i>None required.</i>	--
Impact 3.4-2: The proposed Project has the potential to have direct or indirect effects on special-status reptile and amphibian species.	PS	Mitigation Measure 3.4-1: Prior to commencement of any grading activities, the Project proponent shall seek coverage under the San Joaquin County Multi-Species Habitat Conservation Plan (SJMSCP) to mitigate for habitat impacts to covered special status species. Coverage involves compensation for habitat impacts on covered species through implementation of incidental take and minimization measures (ITMMs) and payment of fees for conversion of lands that may provide habitat for covered special status species. These fees are used to preserve and/or create habitat in preserves to be managed in perpetuity. Obtaining coverage for a Project includes incidental take authorization (permits) under the Endangered Species Act Section 10(a), California Fish and Game Code Section 2081, and the Migratory Bird Treaty Act (MBTA). Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species.	LS
Impact 3.4-3: The proposed Project has the potential to have direct or indirect effects on special-status bird species.	PS	Implement Mitigation Measure 3.4-1.	LS
Impact 3.4-4: The proposed Project has the potential to result in direct or indirect effects on special-status mammal species.	LS	<i>None required.</i>	--
Impact 3.4-5: The proposed Project has the potential for direct or indirect effects on candidate, sensitive, or special-status plant species.	LS	<i>None required.</i>	--

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Impact 3.4-6: The proposed Project has the potential to effect protected wetlands and jurisdictional waters.	PS	<p>Mitigation Measure 3.4-2: Prior to the start of construction work in the area where wetlands have been identified, the project developer shall conduct a wetland delineation identifying jurisdictional Waters of the U.S. and wetlands. The delineation shall be verified by the U.S. Army Corps of Engineers (Corps). The delineation shall be used to determine if any project work will encroach upon any jurisdictional water, thereby necessitating an appropriate permit. For any development work that may affect a delineated jurisdictional Water, the project developer shall obtain any necessary permits from the U.S. Army Corps of Engineers prior to the start of development work within these locations. Depending on the Corps permit issued, the project applicant shall also apply for a Section 401 Water Quality Certification from the Central Valley Regional Water Quality Control Board. If the seasonal wetlands are avoided, or if phased development occurs in areas where no wetlands have been identified, then this mitigation measure does not apply.</p> <p>Mitigation Measure 3.4-3: Prior to the start of construction work in the area where seasonal wetlands have been identified, the project developer shall obtain any necessary Waste Discharge Requirements from the Central Valley Regional Water Quality Control Board. Pursuant to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, the filling of seasonal wetlands containing vernal pool invertebrates shall be delayed until the wetlands are dry and SJCOG biologists can collect the surface soils from the wetlands, to store them for future use on off-site seasonal wetland creation on SJCOG preserve lands. If the seasonal wetlands are avoided, then this mitigation measure does not apply.</p>	LS
Impact 3.4-7: The proposed Project has the potential to result in adverse effects on riparian habitat or a sensitive natural community.	LS	None required.	--
Impact 3.4-8: The proposed Project has the potential to result in interference with the movement of native fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites.	LS	None required.	--

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Impact 3.4-9: The proposed Project has the potential to conflict with an adopted Habitat Conservation Plan.	LS	<i>None required.</i>	--
Impact 3.4-10: The proposed Project has the potential to conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	PS	Mitigation Measure 3.4-2: <i>If removal of any oak tree on the project site is required, a certified arborist shall survey the oak trees proposed for removal to determine if they are Heritage Trees as defined in Stockton Municipal Code Chapter 16.130. The arborist report with its findings shall be submitted to the City's Community Development Department. If Heritage Trees are determined to exist on the property, removal of any such tree shall require a permit to be issued by the City in accordance with Stockton Municipal Code Chapter 16.130. The permittee shall comply with all permit conditions, including tree replacement at specified ratios.</i>	LS
CULTURAL AND TRIBAL RESOURCES			
Impact 3.5-1: Project implementation has the potential to cause a substantial adverse change to a significant historical resource, as defined in CEQA Guidelines §15064.5, or a significant tribal cultural resource, as defined in Public Resources Code §21074.	LS	<i>None required.</i>	--
Impact 3.5-2: Project implementation has the potential to cause a substantial adverse change to a significant archaeological resource, as defined in CEQA Guidelines §15064.5, or a significant tribal cultural resource, as defined in Public Resources Code §21074.	PS	<p>Mitigation Measure 3.5-1: <i>Prior to any ground-disturbing activities on the Project site, a qualified archaeologist shall conduct pre-construction worker cultural resources sensitivity training. The training session shall focus on the recognition of the types of historical and cultural, including Native American, resources that could be encountered, procedures to be followed if resources are found, and pertinent laws protecting these resources. Those in attendance shall be recorded, with records maintained on-site. Any new workers that were not part of the initial training shall be required to undergo a new training session.</i></p> <p>Mitigation Measure 3.5-2: <i>If any cultural resources, including prehistoric or historic artifacts, or other indications of archaeological resources, are found during grading and construction activities during any phase of the Project, all work shall be halted immediately within a 200-foot radius of the discovery until an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, has evaluated the find(s).</i></p>	LS

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		<p>Work shall not continue at the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially significant or eligible for listing on the NRHP or CRHR; or 3) not a significant Public Trust Resource.</p> <p>If Native American resources are identified, a Native American monitor, following the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites established by the Native American Heritage Commission, may also be required and, if required, shall be retained at the Project applicant's expense.</p> <p>Mitigation Measure 3.5-3: If human remains are discovered during the course of construction during any phase of the Project, work shall be halted at the site and at any nearby area reasonably suspected to overlie adjacent human remains until the San Joaquin County Coroner has been informed and has determined that no investigation of the cause of death is required. If the remains are of Native American origin, either of the following steps will be taken:</p> <ul style="list-style-type: none"> • The coroner shall contact the Native American Heritage Commission in order to ascertain the proper descendants from the deceased individual. The coroner shall make a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, which may include obtaining a qualified archaeologist or team of archaeologists to properly excavate the human remains. • The landowner shall retain a Native American monitor, and an archaeologist, if recommended by the Native American monitor, and rebury the Native American human remains and any associated grave goods, with appropriate dignity, on the property and in a location that is not subject to further subsurface disturbance when any of the following conditions occurs: <ul style="list-style-type: none"> ○ The Native American Heritage Commission is unable to identify a descendant. ○ The descendant identified fails to make a recommendation. ○ The City of Stockton or its authorized representative rejects the recommendation of the descendant, and the mediation by the Native 	

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		<i>American Heritage Commission fails to provide measures acceptable to the landowner.</i>	
Impact 3.5-3: Project implementation has the potential to disturb human remains, including those interred outside of formal cemeteries.	PS	Implement Mitigation Measure 3.5-3.	LS
GEOLOGY AND SOILS			
Impact 3.6-1: The proposed Project may directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, strong seismic ground shaking, seismic related ground failure, or landslides.	LS	<i>None required.</i>	--
Impact 3.6-2: Implementation and construction of the proposed Project may result in substantial soil erosion or the loss of topsoil.	PS	Implement Mitigation Measure 3.9-1.	LS
Impact 3.6-3: The proposed project has the potential to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of project implementation, and potentially result in landslide, lateral spreading, subsidence, liquefaction or collapse.	PS	Mitigation Measure 3.6-1: Prior to earthmoving activities for each phase of the Project, a certified geotechnical engineer, or equivalent, shall be retained to perform a final geotechnical evaluation of the soils at a design-level as required by the requirements of the California Building Code Title 24, Part 2, Chapter 18, Section 1803.1.1.2 related to expansive soils and other soil conditions. The evaluation shall be prepared in accordance with the standards and requirements outlined in California Building Code, Title 24, Part 2, Chapter 16, Chapter 17, and Chapter 18, which addresses structural design, tests and inspections, and soils and foundation standards. The final geotechnical evaluation shall include design recommendations to ensure that soil conditions do not pose a threat to the health and safety of people or structures, including threats from liquefaction or lateral spreading. The grading and improvement plans, as well as the storm drainage and building plans for each phase of the Project shall be designed in accordance with the recommendations provided in the final geotechnical evaluation.	LS
Impact 3.6-4: Potential for expansive soils to create substantial risks to life or property.	PS	Implement Mitigation Measure 3.6-1.	LS
Impact 3.6-5: The proposed Project has the potential to directly or indirectly destroy a unique geological feature or paleontological resource.	PS	Mitigation Measure 3.6-2: If any paleontological resources are found during grading and construction activities of the Project, all work shall be halted immediately within a 200-foot radius of the discovery until a qualified paleontologist has evaluated the find.	LS

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		<i>Work shall not continue at the discovery site until the paleontologist evaluates the find and makes a determination regarding the significance of the resource and identifies recommendations for conservation of the resource, including preserving in place or relocating on the Project site, if feasible, or collecting the resource to the extent feasible and documenting the find with the University of California Museum of Paleontology.</i>	
GREENHOUSE GASES, CLIMATE CHANGE AND ENERGY			
Impact 3.7-1: The proposed Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	PS	Implement Mitigation Measures 3.3-1 through 3.3-22.	SU
Impact 3.7-2: Project implementation would not result in the inefficient, wasteful, or unnecessary use of energy resources.	LS	<i>None required.</i>	--
HAZARDS AND HAZARDOUS MATERIALS			
Impact 3.8-1: Potential to create a significant hazard through the routine transport, use, or disposal of hazardous materials or through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	PS	<p>Mitigation Measure 3.8-1: <i>In the event that hazardous materials are encountered during construction, a Soils Management Plan (SMP) shall be submitted and approved by the San Joaquin County Department of Environmental Health. The SMP shall establish management practices for handling hazardous materials, including fuels, paints, cleaners, solvents, etc., during construction. The approved SMP shall be posted and maintained onsite during construction activities and all construction personnel shall acknowledge that they have reviewed and understand the plan.</i></p> <p>Mitigation Measure 3.8-2: <i>Prior to the issuance of grading permits for any of the parcels (i.e., Parcels 1-13, Basins A and C, Open Space B, Sewer Pump Station D, and Open Space E) identified on the Project's Tentative Subdivision Map (see Figure 2.0-7 of this EIR), the applicant or future project proponent shall hire a qualified consultant to perform site-specific soil sampling to determine if chemicals of potential concern associated with the historical agricultural uses at the Project site are present in shallow soil at concentrations</i></p>	LS

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		<p>that would pose a threat to human health. If results of the soil sampling identify concentrations of hazardous materials exceeding appropriate ESLs for the future site-specific use, on-site remediation would be required in coordination with the San Joaquin County Department of Environmental Health.</p> <p>Mitigation Measure 3.8-3: Prior to bringing hazardous materials onsite, the applicant shall submit a Hazardous Materials Business Plan (HMBP) to San Joaquin County Environmental Health Division (CUPA) for review and approval. If during the construction process the applicant or his subcontractors generates hazardous waste, the applicant must register with the CUPA as a generator of hazardous waste, obtain an EPA ID# and accumulate, ship and dispose of the hazardous waste per Health and Safety Code Ch. 6.5. (California Hazardous Waste Control Law).</p> <p>Mitigation Measure 3.8-4: New business on the project site that may handle quantities of hazardous materials equal to or greater than 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of a compressed gas at any given time shall submit a Hazardous Materials Business Plan to the Certified Unified Program Agency (CUPA) of San Joaquin County. The Hazardous Materials Business Plan shall include an inventory of hazardous materials and hazardous wastes and an emergency response plan for incidents involving hazardous materials and wastes</p> <p>Mitigation Measure 3.8-5: Proposed business uses that involve the manufacture, storage, handling, or processing of hazardous materials in sufficient quantities that would require a Hazardous Materials Business Plan and the use is within 1,000 feet of a residential zoning district, the project shall comply with Stockton Municipal Code Section 16.36.080, which governs use, handling, storage, and transportation of hazardous materials.</p> <p>Implement Mitigation Measure 3.9-1.</p>	
Impact 3.8-2: Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within	LS	None required.	--

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one-quarter mile of an existing or proposed school.			
Impact 3.8-3: Potential to result in impacts from being included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.	LS	<i>None required.</i>	--
Impact 3.8-4: Potential for the Project to result in a safety hazards for people residing or working on the project site as a result of public airport or public use airport.	PS	Mitigation Measure 3.8-6: <i>Prior to final approval of building plans, the project shall be submitted to the San Joaquin Council of Governments (SJCOC), acting in its capacity as the Airport Land Use Commission, for review of the compatibility of the project with Stockton Metropolitan Airport operations and conformance to the guidelines stipulated in the Airport Land Use Compatibility Plan for Stockton Metropolitan Airport.</i>	LS
Impact 3.8-5: Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LS	<i>None required.</i>	--
HYDROLOGY AND WATER QUALITY			
Impact 3.9-1: The proposed Project has the potential to violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	PS	Mitigation Measure 3.9-1: <i>Prior to any site disturbance, the Project proponent shall submit a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) to the RWQCB in accordance with the NPDES General Construction Permit requirements. The SWPPP shall be designed to control pollutant discharges utilizing Best Management Practices (BMPs) and technology to reduce erosion and sediments. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater runoff from the Project site. Measures shall include temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) that will be employed to control erosion from disturbed areas. Final selection of BMPs will be subject to approval by the City of Stockton and the RWQCB. The SWPPP will be kept on site during construction activity and will be made available upon request to representatives of the RWQCB.</i>	LS

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		<p>Industrial uses on the project shall obtain coverage under the Central Valley RWQCB Industrial General Permit program and implement pollution control measures using the best available technology economically achievable and best conventional pollutant control technology. All facility operators shall prepare, retain on site, and implement a SWPPP implementing applicable Industrial General Permit requirements, including a monitoring program</p> <p>Mitigation Measure 3.9-2: Prior to the issuance of grading permits, the applicant and/or future Project proponent must submit a site-specific Project Stormwater Quality Control Plan to the City of Stockton Department of Municipal Utilities for review and approval. The project must comply with the Stockton Municipal Code Section 15.48.050, which requires construction activities to be designed and conducted to minimize discharge of sediment and all other pollutants and Section 15.48.070, which contains standards for implementation of Best Management Practices. The site-specific Project Stormwater Quality Control Plan must specify BMPs the Project will use and design specifications for selected BMPs to ensure the Project's consistency with State and local water quality regulations.</p>	
Impact 3.9-2: The proposed Project has the potential to substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.	LS	None required.	--
Impact 3.9-3: The proposed Project has the potential to alter the existing drainage pattern of the site or area, including the alteration of the course of a river or through the addition of impervious surfaces, in a manner which would result in substantial erosion, siltation, surface runoff, flooding, or polluted runoff.	LS	None required.	--
Impact 3.9-4: The proposed Project has the potential to, in a flood hazard, tsunami, or seiche	LS	Mitigation Measure 3.9-3: Prior to the issuance of grading permits, the applicant shall obtain the local NFIP administering community's approval and file a Conditional Letter of	--

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zones, risk release of pollutants due to Project inundation		<i>Map Revision (CLOMR) to remove any structures located within a FEMA designated Zone AO from the Special Flood Hazard Area.</i>	
Impact 3.9-5 The proposed Project has the potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	LS	<i>None required.</i>	--
LAND USE AND POPULATION			
Impact 3.10-1: The proposed Project would not physically divide an established community.	LS	<i>None required.</i>	--
Impact 3.10-2: The proposed Project would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project adopted to avoid or mitigate an environmental effect.	LS	<i>None required.</i>	--
Impact 3.10-3: The proposed Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	LS	<i>None required.</i>	--
NOISE			
Impact 3.11-1: The proposed Project has the potential to generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	PS	<p>Mitigation Measure 3.11-1: <i>To reduce traffic noise increases under Existing Plus Project conditions to less than +3.0 dB, the following roadway segments shall be paved with quiet pavement:</i></p> <ul style="list-style-type: none"> Airport Way from Commerce Drive to French Camp Road. <i>Approximately 1,000 feet (approximately 0.19 miles) of quiet pavement for four-lanes of roadway would be required. Approximate distance includes extension of quiet pavement a minimum of 100 feet past noise-sensitive receptors. See Figure 3.11-6 for approximate required pavement locations.</i> 	LS

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ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	RESULTING LEVEL OF SIGNIFICANCE
		<ul style="list-style-type: none"> Airport Way from French Camp Road to Roth Road. Approximately 6,600 feet (approximately 1.25 miles) of quiet pavement for two-lanes of roadway would be required. Approximate distance includes extension of quiet pavement a minimum of 100 feet past noise-sensitive receptors. See Figure 3.11-6 for approximate required pavement locations. Airport Way from Performance Drive to Arch Road. Approximately 500 feet (approximately 0.09 miles) of quiet pavement for four-lanes of roadway would be required. Approximate distance includes extension of quiet pavement a minimum of 100 feet past noise-sensitive receptors. See Figure 3.11-6 for approximate required pavement locations. <p>The pavement would be required for any portion of roadway passing a noise-sensitive use, and for a distance of 100 feet on either side of the sensitive-use. This requirement shall be noted on the Project improvement plans. Approximate pavement locations are shown on Figure 3.11-6.</p> <p>Mitigation Measure 3.11-2: Construction activities associated with the project shall adhere to the requirements of the City of Stockton Municipal Code with respect to hours of operation. The applicant shall ordinarily limit construction activities to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday. No construction shall occur on Sundays or national holidays without a written permit from the City. All construction equipment shall be in good working order and shall be fitted with factory-equipped mufflers.</p> <p>These requirements shall be noted on the Project improvement plans.</p> <p>Mitigation Measure 3.11-3: Project operation shall at all times comply with the provisions of Stockton Municipal Code Chapter 16.60, including Section 16.60.040, which states that new or expanded commercial, industrial, and other land use-related noise sources shall mitigate their noise levels such that they do not adversely impact noise-sensitive land uses (e.g., residences) and do not exceed City noise standards.</p>	
Impact 3.11-2: The proposed Project would not generate excessive groundborne vibration or groundborne noise levels.	LS	None required.	--

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

PS – potentially significant

B – beneficial impact

SU – significant and unavoidable

<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
Impact 3.11-3: The proposed Project would not expose people residing or working in the Project area to excessive noise levels	LS	<i>None required.</i>	--
PUBLIC SERVICES			
Impact 3.12-1: The proposed Project has the potential to require the construction of police department facilities which may cause substantial adverse physical environmental impacts.	LS	<i>None required.</i>	--
Impact 3.12-2: The proposed Project has the potential to require the construction of fire department facilities which may cause substantial adverse physical environmental impacts.	PS	<p>Mitigation Measure 3.12-1: Project buildings shall include an Early Suppression, Fast Response (ESFR) fire sprinkler system.</p> <p>Mitigation Measure 3.12-2: City departments, including Fire, Community Development, and Finance, together with industrial project proponents, shall develop and implement a plan for financing, construction and staffing of a new fire station in the vicinity of the project site. Development and implementation of the plan will involve a multi-year process helping the Department meet increasing service demands and to reduce response times. The project applicant shall contribute to the costs of constructing and staffing the new fire station in accordance with the adopted plan.</p>	LS
Impact 3.12-3: The proposed Project has the potential to require the construction of school facilities which may cause substantial adverse physical environmental impacts.	LS	<i>None required.</i>	--
Impact 3.12-4: The proposed Project has the potential to have effects on other public facilities.	LS	<i>None required.</i>	--
Impact 3.12-5: The proposed Project has the potential to require the construction of park and recreational facilities which may cause	LS	<i>None required.</i>	--

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

PS – potentially significant

B – beneficial impact

SU – significant and unavoidable

<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
substantial adverse physical environmental impacts.			
Impact 3.12-6: The proposed Project has the potential to increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated.	LS	<i>None required.</i>	--

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PS – potentially significant

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ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	RESULTING LEVEL OF SIGNIFICANCE
TRANSPORTATION AND CIRCULATION			
Impact 3.13-1: Project implementation would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	PS	<p>Mitigation Measure 3.13-1: The Project applicant shall work with the City of Stockton to implement feasible transportation demand management (TDM) strategies, which would decrease the VMT generated by the Project. Specific potential TDM strategies include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • Provide public transit service, including improving San Joaquin Rapid Transit District (RTD) transit service connecting workers with existing and future residential developments; • Implement a fair value commuting program or other pricing of vehicle travel and parking; • TDM coordinator for large employers; • Provide an employer sponsored shuttle or carpool and/or vanpool incentive programs, A vanpool will usually service employees' commute to work, while a shuttle will service nearby transit stations and surrounding commercial centers. Employer-sponsored vanpool programs entail an employer purchasing or leasing vans for employee use, and often subsidizing the cost of at least program administration. Scheduling is within the employer's purview, and rider charges shall be set on the basis of vehicle and operating cost; • Provide "end-of-trip" facilities for bicycle riders to encourage the use of bicycling as a viable form of travel to destinations, especially to work. End-of-trip facilities shall include showers, secure bicycle lockers, and changing spaces. • Promote walking and bicycling for employees who live and/or work in the area through the preparation of an Active Transportation Plan; • Incentivize the use of alternative travel modes for travel within the project site through shared use of e-bikes and e-scooters; • Allow flexible work hours and schedule classes to reduce arrivals/departures during peak hours; and • Employer coordination to SJCOG's DIBs program for workers. 	SU

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LCC – less than cumulatively considerable

LS – less than significant

PS – potentially significant

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SU – significant and unavoidable

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	RESULTING LEVEL OF SIGNIFICANCE
		<p>A TDM Plan shall be submitted to the City for review, and the effectiveness of the TDM Plan shall be evaluated, monitored, and revised, if necessary. The TDM Plan shall include the TDM strategies which will be implemented during the lifetime of the Project, and shall outline the anticipated effectiveness of the strategies. The effectiveness of the TDM Plan may be monitored through annual surveys to determine employee travel mode split and travel distance for home-based work trips, and/or the implementation of technology to determine the amount of traffic generated by and home-based work miles traveled by employees, which shall be determined in coordination with the City.</p> <p>Mitigation Measure 3.13-2: The project shall implement SJVAPCD Rule 9410. Rule 9410, which requires employers with at least 100 employees to implement a trip reduction/transportation demand management program, or ETRIP. [See Air Quality section.] ETRIP requirements are consistent with a Commute Trip Reduction program recommended by the traffic impact study as a mitigation measure. See also EIR Mitigation Measures TRANS-1 and TRANS-2, which require "end-of-trip" facilities and an employer-sponsored vanpool or shuttle.</p>	
Impact 3.13-2: Project implementation would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities	LS	None required.	--
Impact 3.13-3: Project implementation would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LS	None required.	--
Impact 3.13-4: Project implementation would not result in inadequate emergency access	LS	None required.	--
Impact 3.13-5: Project implementation would not cause impacts due to construction.	LS	None required.	--
UTILITIES			

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<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
Impact 3.14-1: The proposed Project has the potential to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.	LS	<i>None required.</i>	--
Impact 3.14-2: The proposed Project has the potential to result in a determination by the wastewater treatment and/or collection provider which serves or may serve the Project that is does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.	PS	Mitigation Measure 3.14-1: <i>Prior to occupancy of any building that would require wastewater treatment services, the Project proponent shall secure adequate wastewater treatment capacity/allocation.</i>	LS
Impact 3.14-3: The proposed Project has the potential to require or result in the construction of new wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LS	<i>None required.</i>	--
Impact 3.14-4: The proposed Project has the potential to require construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LS	<i>None required.</i>	--
Impact 3.14-5: The proposed Project has the potential to have insufficient water supplies available to serve the Project from existing entitlements and resources.	LS	<i>None required.</i>	--
Impact 3.14-6: The proposed Project has the potential to require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LS	<i>None required.</i>	--

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<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
Impact 3.14-7: The proposed Project has the potential to be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs and comply with federal, State, and local statutes and regulations related to solid waste	PS	Mitigation Measure 3.14-2: <i>As a Condition of Approval, the project applicant shall comply with the provisions of Stockton Municipal Code Sections 8.28.020 through 8.28.070 regarding construction and demolition waste. Permit applicants for the project shall be required to meet the waste diversion requirement of at least 50 percent of materials generated as discards by the project, regardless of whether the permit applicant performs the work or hires contractors, subcontractors, or others to perform the work.</i>	LS
CUMULATIVE IMPACTS			
Impact 4.1: Cumulative Damage to Scenic Resources within a State Scenic Highway	LS and LCC	<i>None required.</i>	--
Impact 4.2: Cumulative Degradation of the Existing Visual Character of the Region	PS	<i>None feasible.</i>	CC and SU
Impact 4.3: Cumulative Impact on Light and Glare	LS and LCC	<i>None required.</i>	--
Impact 4.4: Cumulative Impact on Agricultural Resources	PS	<i>None feasible.</i>	CC and SU
Impact 4.5: Cumulative Impact on the Region's Air Quality	PS	<i>None feasible.</i>	CC and SU
Impact 4.6: Cumulative Loss of Biological Resources Including Habitats and Special Status Species	LS and LCC	<i>None required.</i>	--
Impact 4.7: Cumulative Impacts on Known and Undiscovered Cultural and Tribal Resources	LS and LCC	<i>None required.</i>	--
Impact 4.8: Cumulative Impact on Geologic and Soils Resources	LS and LCC	<i>None required.</i>	--
Impact 4.9: Cumulative Impact on Climate Change from Increased Project-Related Greenhouse Gas Emissions	PS	<i>None feasible.</i>	CC and SU
Impact 4.10: Cumulative Impact Related to Hazards and Hazardous Materials	LS and LCC	<i>None required.</i>	--
Impact 4.11: Cumulative Increases in Peak Stormwater Runoff from the Project site	LS and LCC	<i>None required.</i>	--
Impact 4.12: Cumulative Impacts Related to Degradation of Water Quality	LS and LCC	<i>None required.</i>	--

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<i>ENVIRONMENTAL IMPACT</i>	<i>LEVEL OF SIGNIFICANCE WITHOUT MITIGATION</i>	<i>MITIGATION MEASURE</i>	<i>RESULTING LEVEL OF SIGNIFICANCE</i>
Impact 4.13: Cumulative Impacts Related to Degradation of Groundwater Supply or Recharge	LS and LCC	<i>None required.</i>	--
Impact 4.14: Cumulative Impacts Related to Flooding	LS and LCC	<i>None required.</i>	--
Impact 4.15: Cumulative Impact on Communities and Local Land Uses and Population	LS and LCC	<i>None required.</i>	--
Impact 4.16: Cumulative Exposure of Existing and Future Noise-Sensitive Land Uses to Increased Noise Resulting from Cumulative Development	LS and LCC	<i>None required.</i>	--
Impact 4.17: Cumulative Impact on Public Services	LS and LCC	<i>None required.</i>	--
Impact 4.18: Under Cumulative conditions, the proposed Project would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)	PS	<i>None feasible.</i>	CC and SU
Impact 4.19: Under Cumulative conditions, the proposed Project would not adversely affect pedestrian and bicycle facilities	LS and LCC	<i>None required.</i>	--
Impact 4.20: Cumulative Impact on Wastewater Utilities	LS and LCC	<i>None required.</i>	--
Impact 4.21: Cumulative Impact on Water Utilities	LS and LCC	<i>None required.</i>	--
Impact 4.22: Cumulative Impact on Stormwater Facilities	LS and LCC	<i>None required.</i>	--
Impact 4.23: Cumulative Impact on Solid Waste Facilities	LS and LCC	<i>None required.</i>	--

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1.1 INTRODUCTION

The City of Stockton prepared and publicly circulated a Draft Environmental Impact Report (EIR) for the proposed South Stockton Commerce Center Project (proposed Project) on October 15, 2021, inviting comment from the general public, agencies, organizations, and other interested parties. A Notice of Availability (NOA) was filed with the State Clearinghouse (SCH # 2020090561) and the County Clerk on October 15, 2021, and was published in a local newspaper pursuant to the public noticing requirements of the California Environmental Quality Act (CEQA). The Draft EIR was available for public review and comment from October 15, 2021, through November 29, 2021. However, the City opted to extend the public review period for the Draft EIR an additional 15 days (for 60 days total). The Draft EIR was available for public review and comment from October 15, 2021, through December 14, 2021.

On December 6, 2022, the California Attorney General announced an agreement requiring the City of Stockton to prepare and consider an ordinance implementing robust mitigation measures for future warehouse development in the city and impose similarly robust mitigation measures to the Mariposa Industrial Park Project. The Attorney General's Office worked with the City of Stockton to develop advanced mitigation measures to address the Mariposa Industrial Park Project's impacts on the surrounding community. Many of the mitigation measures reflect the Attorney General's Warehouse Best Practices guidance, and include a 100 percent electric vehicle (EV) heavy-duty on-site truck fleets, a requirement that operational power be supplied by solar and other renewable sources, large setbacks and landscaped barriers between sensitive receptors and the Mariposa Industrial Park Project, and a community benefit fund to support clean air projects in the south Stockton community.

On December 12, 2023, the Stockton City Council adopted Stockton Municipal Code Title 16, an ordinance establishing new logistics warehouse development standards. These standards became effective on January 11, 2024. The Ordinance is referred to as the City's "Warehouse Ordinance." Additionally, the proposed Project utility improvements have been refined since the prior (2021) public comment period. This Recirculated Draft EIR was prepared to reflect the changes in the Project Description resulting from compliance with the Warehouse Ordinance and the refined utility plans.

Pursuant to the CEQA Guidelines Section 15088.5 (a), a lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the EIR for public review under Section 15087 but before certification of the EIR. New information can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. As identified in Section 15088 (a) of the CEQA Guidelines, "significant new information" requiring recirculation is defined to include disclosures of any of the following:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
4. The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

This Recirculated Draft EIR was prepared because new information in the form of changes in the project and regulatory setting was identified.

1.2 SUMMARY OF THE REVISIONS TO THE DRAFT EIR

At the December 12, 2023, Stockton City Council meeting, the Council adopted a Stockton Municipal Code Title 16 Ordinance establishing new logistics warehouse development standards to address and mitigate the potential environmental and public health hazards posed by warehouse development, in compliance with separate settlement agreements between the City and the State Attorney General's Office (AG) and Sierra Club. These standards became effective on January 11, 2024. The Ordinance is referred to as the City's Warehouse Ordinance. On July 9, 2024, the City Council considered and approved amendments to the City's Warehouse Ordinance. One of the amendments changed the Warehouse Ordinance to apply to annexation projects submitted after December 31, 2023 (SMC Section 16.80.390(A)). Since the Project Area was annexed prior to December 31, 2023, this amendment exempts the South Stockton Project from the City's Warehouse Ordinance. Although exempt from the Warehouse Ordinance, the Project Applicant, elected to incorporate feasible measures within the Warehouse Ordinance into the Project Description. Additionally, the proposed Project utility improvements have been refined since the prior (2021) public comment period. This Recirculated Draft EIR was prepared to reflect the changes in the Project Description resulting from compliance with the Ordinance and the refined utility plans. The Project Description chapter and the other sections herein have been updated to reflect such Project compliance with the Ordinance, as well as other Project refinements (such as utility plans, construction schedule, etc.).

Further, upon review of certain comments received on the Draft EIR during the prior (2021) public comment period, the City concluded that the air quality and greenhouse gas analyses should be revised to reflect some of the suggested analysis methods and mitigation included in the comments. For example, the California Attorney General's Office, in its comments on the Draft EIR, provided the Attorney General's "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act" document and encouraged the City to review the enforceable and feasible mitigation measures included in Section V, Air Quality and Greenhouse Gas Emissions Analysis and Mitigation, of the document. Additionally, the Sierra Club, in its comments on the Draft EIR, had suggested that the Draft EIR revise certain mitigation measures.

This Recirculated Draft EIR includes the following chapters:

- Chapter ES: Executive Summary
- Chapter 1.0: Introduction
- Chapter 2.0: Project Description
- Section 3.1: Aesthetics and Visual Resources
- Section 3.2: Agricultural Resources
- Section 3.3: Air Quality
- Section 3.4: Biological Resources
- Section 3.5: Cultural and Tribal Resources
- Section 3.6: Geology and Soils
- Section 3.7: Greenhouse Gases, Climate Change and Energy
- Section 3.8: Hazards and Hazardous Materials
- Section 3.9: Hydrology and Water Quality
- Section 3.10: Land Use and Population
- Section 3.11: Noise
- Section 3.12: Public Services
- Section 3.13: Transportation and Circulation
- Section 3.14: Utilities and Service Systems
- Chapter 4.0: Other CEQA-Required Topics
- Chapter 5.0: Alternatives to the Proposed Project
- Chapter 6.0: Report Preparers and Contributors
- Chapter 7.0: References

These chapters will substitute for and supersede those contained in the previously-circulated Draft EIR.

1.3 COMMENTING ON THE RECIRCULATED DRAFT EIR

In accordance with Section 15088.5(f)(1) of the CEQA Guidelines, *“When an EIR is substantially revised and the entire document is recirculated, the lead agency may require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period. The lead agency shall advise reviewers, either in the text of the revised EIR or by an attachment to the revised EIR, that although part of the administrative record, the previous comments do not require a written response in the final EIR, and that new comments must be submitted for the revised EIR. The lead agency need only respond to those comments submitted in response to the recirculated revised EIR.”*

The City of Stockton, acting as the lead agency for the project, formally requires that reviewers of the Recirculated Draft EIR **submit new comments on the Recirculated Draft EIR included herein**. The original 2021 Draft EIR comment letters are included as Appendix A of this Recirculated Draft EIR. The Final EIR, which will be prepared after the public review period for the Recirculated Draft EIR, will include responses to comments received only on this Recirculated Draft EIR. While comments submitted on the original Draft EIR shall be part of the project’s administrative record, per CEQA Guidelines Section 15088.5(f)(1), **the City will not respond to comments received on the original Draft EIR during the earlier circulation period.**

1.0 INTRODUCTION

Written public comments may be submitted to the City during the specified public review and comment period. Written comments should be delivered in person or by courier service, or be sent by mail or email to:

Attn: Nicole D. Moore, LEED AP – Contract Planner
City of Stockton
345 N. El Dorado Street
Stockton, CA 95202
(209) 227-3138

1.4 TYPE OF EIR

The State CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a Project-level EIR is described in State CEQA Guidelines § 15161 as: “The most common type of EIR (which) examines the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation. The project-level analysis considers the broad environmental effects of the proposed Project.

1.5 KNOWN RESPONSIBLE AND TRUSTEE AGENCIES

The term “Responsible Agency” includes all public agencies other than the Lead Agency that have discretionary approval power over the proposed Project or an aspect of the proposed Project (CEQA Guidelines Section 15381). For the purpose of CEQA, a “Trustee” agency has jurisdiction by law over natural resources that are held in trust for the people of the State of California (CEQA Guidelines Section 15386).

The following agencies are considered “Responsible Agencies” or “Trustee Agencies” for the proposed Project, and may be required to issue permits or approve certain aspects of the proposed Project:

- Public Utilities Commission – Approval of proposed overpass;
- California Department of Fish and Wildlife – Streambed Alteration Agreement pursuant to Section 1602 of the California Fish and Game Code;
- United States Army Corps. Of Engineers (USACE) – Permitting of federal jurisdictional areas pursuant to Section 404 of the Clean Water Act.
- Central Valley Regional Water Quality Control Board (CVRWQCB) – Storm Water Pollution Prevention Plan (SWPPP) approval prior to construction activities pursuant to the Clean Water Act;
- CVRWQCB – Water quality certification pursuant to Section 401 of the Clean Water Act;
- San Joaquin Valley Air Pollution Control District (SJVAPCD) – Approval of construction-related air quality permits;

- San Joaquin Valley Air Pollution Control District (SJVAPCD) – As an industrial development, the Project may be subject to Indirect Source Review (ISR) by the SJVAPCD. The storm drain pump station may require an Authority to Construct and, Permit to Operate;
- Stockton Fire Department – Plan check of the site plan and roadway improvements for adequate emergency vehicle access and fire flow capabilities;
- Central Valley Flood Protection Board (CVFPB) – Approval of the storm drainage flood channel;
- San Joaquin County Flood Control and Water Conservation District – Approval of the proposed storm basins, outfall and pump stations;
- Sacramento & San Joaquin Drain District (SSJDD) – Approval for construction of an outfall; and
- San Joaquin Council of Governments (SJCOG) – Issuance of incidental take permit under the San Joaquin Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

1.6 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR has involved, or will involve, the following general procedural steps:

NOTICE OF PREPARATION AND INITIAL STUDY

The City of Stockton circulated an Initial Study (IS) and Notice of Preparation (NOP) of an EIR for the proposed Project on September 30, 2020 to State Clearinghouse, State Responsible Agencies, State Trustee Agencies, Other Public Agencies, Organizations and Interested Persons. A public scoping meeting was held via WebEx on October 26, 2020 to present the project description to the public and interested agencies, and to receive comments from the public and interested agencies regarding the scope of the environmental analysis to be included in the Draft EIR. Concerns raised in response to the NOP were considered during preparation of the Draft EIR. The IS, NOP, and comments received on the NOP by interested parties are presented in Appendix A.

DRAFT EIR

The City published a public Notice of Availability (NOA) for the Draft EIR on October 15, 2021, inviting comments from the general public, agencies, organizations, and other interested parties. The NOA was filed with the State Clearinghouse (SCH # 2020090561) and the County Clerk and was published in a local newspaper pursuant to the public noticing requirements of CEQA. The original 45-day public review period for the Draft EIR began on October 15, 2021, and would have ended on November 29, 2021, at 5:00 p.m. However, the City opted to extend the public review period for the Draft EIR an additional 15 days (for 60 days total). The Draft EIR was available for public review and comment from October 15, 2021, through December 14, 2021.

The original Draft EIR contains a description of the Project, description of the environmental setting, identification of Project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of Project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. The Draft EIR identifies issues

determined to have no impact or a less-than-significant impact and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the NOP were considered in preparing the analysis in the original Draft EIR.

The City has decided to Recirculate the Draft EIR to address new information, including the establishment of new logistics warehouse development standards (that were identified through the adoption and amendments to the City of Stockton's new Warehouse Ordinance), refined utility plans, updated construction schedules, updated air quality and greenhouse gas modeling, and revised mitigation measures. The Recirculated Draft EIR completely supersedes the original Draft EIR.

PUBLIC NOTICE/PUBLIC REVIEW

The City of Stockton will provide a public notice of availability for the Recirculated Draft EIR, and invite comment from the general public, agencies, organizations, and other interested parties. Consistent with CEQA, the review period for this Recirculated Draft EIR is forty-five (45) days. Public comment on the Recirculated Draft EIR will be accepted in written form. All comments or questions regarding the Recirculated Draft EIR should be addressed to:

Attn: Nicole D. Moore, LEED AP – Contract Planner
City of Stockton
345 N. El Dorado Street
Stockton, CA 95202
(209) 227-3138

RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to both oral and written comments received during the public review period for the Recirculated Draft EIR. As noted previously in this chapter, consistent with the requirements established under CEQA Guidelines Section 15088.5(f)(1), the City of Stockton, acting as the lead agency for the project, formally requires that reviewers of the Recirculated Draft EIR **submit new comments on the Recirculated Draft EIR included herein**. The Final EIR, which will be prepared after the public review period for the Recirculated Draft EIR, will include responses to comments received only on this Recirculated Draft EIR. While comments submitted on the original Draft EIR shall be part of the project's administrative record, per CEQA Guidelines Section 15088.5(f)(1), **the City will not respond to comments received on the original Draft EIR during the earlier circulation period.**

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The City of Stockton will review and consider the Final EIR. If the City of Stockton finds that the Final EIR is "adequate and complete", the City of Stockton will certify the Final EIR in accordance with CEQA. The rule of adequacy generally holds that an EIR can be certified if:

- 1) The EIR shows a good faith effort at full disclosure of environmental information; and
- 2) The EIR provides sufficient analysis to allow decisions to be made regarding the proposed project in contemplation of environmental considerations.

Following review and consideration of the Final EIR, the City of Stockton may take action to approve, modify, or reject the proposed Project. A Mitigation Monitoring Program, as described below, will also be adopted in accordance with Public Resources Code Section 21081.6(a) and CEQA Guidelines Section 15097 for mitigation measures that have been incorporated into or imposed upon the proposed Project to reduce or avoid significant effects on the environment. This Mitigation Monitoring Program will be designed to ensure that these measures are carried out during project implementation, in a manner that is consistent with the EIR.

1.7 ORGANIZATION AND SCOPE

Sections 15122 through 15132 of the State CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, mitigation measures, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. Discussion of the environmental issues addressed in the Draft EIR was established through review of environmental and planning documentation developed for the proposed Project, environmental and planning documentation prepared for recent projects located within the City of Stockton, applicable local and regional planning documents, and responses to the Notice of Preparation (NOP).

This Recirculated Draft EIR is organized in the following manner:

EXECUTIVE SUMMARY

This Executive Summary summarizes the characteristics of the proposed project, known areas of controversy and issues to be resolved, and provides a concise summary matrix of the proposed Project's environmental impacts and possible mitigation measures. This chapter identifies alternatives that reduce or avoid at least one significant environmental effect of the proposed Project.

CHAPTER 1.0 – INTRODUCTION

Chapter 1.0 briefly describes the purpose of the environmental evaluation, identifies the lead, trustee, and responsible agencies, summarizes the process associated with preparation and certification of an EIR, and identifies the scope and organization of the Draft EIR.

CHAPTER 2.0 – PROJECT DESCRIPTION

Chapter 2.0 provides a detailed description of the proposed Project, including the location, intended objectives, background information, the physical and technical characteristics, including the decisions subject to CEQA, related improvements, and a list of related agency action requirements.

CHAPTER 3.0 – ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Chapter 3.0 contains an analysis of environmental topic areas as identified below. Each subchapter addressing a topical area is organized as follows:

Environmental Setting. A description of the existing environment as it pertains to the topical area.

Regulatory Setting. A description of the regulatory environment that may be applicable to the proposed Project.

Impacts and Mitigation Measures. Identification of the thresholds of significance by which impacts are determined, a description of project-related impacts associated with the environmental topic, identification of appropriate mitigation measures, and a conclusion as to the significance of each impact.

The following environmental topics are addressed in this section:

- Aesthetics and Visual Resources
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural and Tribal Resources
- Geology and Soils
- Greenhouse Gases, Climate Change and Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Population
- Noise
- Public Services
- Transportation and Circulation
- Utilities and Service Systems

CHAPTER 4.0 – OTHER CEQA-REQUIRED TOPICS

Chapter 4.0 evaluates and describes the following CEQA required topics: impacts considered less-than-significant, significant and irreversible impacts, growth-inducing effects, cumulative, and significant and unavoidable environmental effects.

CHAPTER 5.0 – ALTERNATIVES TO THE PROJECT

State CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the proposed Project, which could feasibly attain the basic objectives of the proposed Project and avoid and/or lessen any significant environmental effects of the proposed Project. Chapter 5.0 provides a comparative analysis between the environmental impacts of the proposed Project and the selected alternatives.

CHAPTER 6 – REPORT PREPARERS

This section lists all authors and agencies that assisted in the preparation of the EIR, by name, title, and company or agency affiliation.

APPENDICES

This section includes all notices and other procedural documents pertinent to the EIR, as well as technical material prepared to support the analysis.

1.8 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The City of Stockton received five written comment letters on the NOP for the proposed Project. A copy of the letters is provided in Appendix A of this Recirculated Draft EIR. The commenting agency/citizen is provided below. The City also held a public scoping meeting on October 26, 2020. No written or verbal comments were provided at that scoping meeting.

- California Air Resources Board;
- California Department of Conservation, Division of Geology and Mines;
- California Department of Conservation, Division of Land Resource Protection;
- California Department of Justice;
- California Department of Transportation;
- California Water Board. Central Valley Regional Water Quality Control Board;
- Center for Biological Diversity;
- Delta-Sierra Group;
- Marvin Norman;
- Native American Heritage Commission; and
- San Joaquin Valley Air Pollution Control District.

Additionally, an NOP for the proposed Project was circulated on August 29, 2024. A copy of the letters is provided in Appendix E of this Recirculated Draft EIR. The commenting agency/citizen is provided below. The City also held a public scoping meeting on September 24, 2024. No written or verbal comments were provided at that scoping meeting.

- Carpenters Local Union 152;
- California Department of Fish and Wildlife;
- California Water Board. Central Valley Regional Water Quality Control Board; and
- Sierra Club.

1.9 POTENTIAL AREAS OF CONCERN

Aspects of the proposed project that could be of public concern include the following:

- Impacts associated with development near oil and gas wells;
- Potential cancer risks from on-site transport refrigeration units;
- The type and amount of agricultural land converted to urban uses;
- Impacts on any current and future agricultural operations in the vicinity;
- Pollution concerns associated with dust and increased truck traffic;
- Potential health risks in disadvantaged communities associated with diesel emissions, oxides of nitrogen, and greenhouse gases during operation and construction;

- Siting incompatible land uses and reducing air pollution impacts at the project- and cumulative-levels;
- Methods to reduce vehicle miles traveled and greenhouse gas emissions, such as promoting multimodal transportation;
- Project consistency with the 2014 City of Stockton Climate Action Plan and greenhouse gas reduction requirements;
- Ancestral tribal territory for the United Auburn Indian Community and the Northern Valley Yokuts;
- Increased traffic on project area roadways and State highway facilities;
- Traffic impacts to bicycle and pedestrian facilities; and
- Potential impacts related to on-site drainage and flooding.

2.0.1 PROJECT LOCATION

The South Stockton Commerce Center Project site (proposed Project site) is comprised of 422.22 acres located in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport. The Project site is located west of the 99 Frontage Road and State Route (SR) 99 and east of Airport Way. The Union Pacific Railroad (UPRR) extends south from Airport Way bisecting the western portion of the site. French Camp Slough extends southeast from Airport Way across the southwestern portion of the site. It continues east under the UPRR and then south across the southwestern portion of the site, before continuing south off-site.

The Project also includes off-site sewer improvements located along and adjacent to existing Project area roadways. The off-site sewer improvements would be located along the western site frontage on Airport Way, head north along Airport Way, and terminate in Airport Way and Industrial Drive to the north.

Figures 2.0-1 and 2.0-2 show the Project's regional location and vicinity.

2.0.2 PROJECT SETTING

EXISTING SITE CONDITIONS

The Project site is located on all or a portion of five assessor parcels for which the Assessor's Parcel Number (APN) for each is listed in Table 2.0-1, and displayed on Figure 2.0-3.

TABLE 2.0-1: PARCELS WITHIN THE PROJECT AREA

APN	LOCATION	ACREAGE
177-110-040	6110 S. Airport Way	218.30
177-100-030	7070 S. Airport Way	71.03
177-110-050	6122 S. Airport Way	3.26
201-020-010	9091 S. State Route 99	75.07
177-050-090	8606 S. Airport Way	54.20
N/A	UPRR right-of-way	0.36
Total		422.22

SITE TOPOGRAPHY

The Project site is relatively flat and ranges in elevation from approximately 14 to 40 feet above mean sea level.

EXISTING SITE USES

Figure 2.0-4 shows aerial imagery of the current existing site uses within the Project site. As shown, the Project site is comprised of active agricultural fields. The majority of the fields produce watermelons, with a walnut orchard located in the eastern portion of the site. The off-site sewer improvements would be located within the Airport Way right-of-way, and adjacent to the roadway in certain limited areas (such as northeast of the Airport Way and Arch Airport Road intersection, and northeast of the Airport Way and Boeing Way intersection).

EXISTING SURROUNDING USES

The Project site is primarily bounded by lands within the County to the north, east and south. Lands within the City of Stockton are located to the west. Uses within the surrounding area include the following:

- North – Rydberg Creek, Army National Guard, and Stockton Airport to the north within County.
- East – Agricultural lands, 99 Frontage Road and SR 99.
- South – Agricultural lands and Duck and Lone Tree Creeks (also referred to as French Camp Slough).
- West – The UPRR, Airport Way, and agricultural lands.

The off-site sewer improvements are located along and adjacent to Airport Way to the north and west of the Project site. The existing uses near the off-site sewer improvements include existing and future industrial uses.

2.0.3 GENERAL PLAN LAND USE AND ZONING DESIGNATIONS

EXISTING CITY OF STOCKTON GENERAL PLAN LAND USE DESIGNATIONS

The Envision Stockton 2040 General Plan Land Use Map (Figure 2.0-5) designates the Project site as Industrial, Commercial, and Open Space/Agriculture. Figure 2.0-5 depicts the Envision 2040 Stockton General Plan land use designations for the Project site and the surrounding areas. The General Plan contains the following standards to guide development for these land uses:

Industrial (I): This designation allows for a wide variety of industrial uses, including uses with nuisance or hazardous characteristics, warehousing, construction contractors, light manufacturing, offices, retail sales, service businesses, public and quasi-public uses, and other similar and compatible uses. Residential uses are prohibited. The maximum FAR for industrial uses is 0.6.

Commercial (C): This designation allows for a wide variety of retail, service, and commercial recreational uses; business, medical, and professional offices; residential uses; public and quasi-public uses; and other similar and compatible uses. Community or regional commercial centers as well as freestanding commercial establishments are permitted. In addition, limited industrial uses are allowed, provided that they are indoors and compatible with surrounding uses. The maximum FAR ranges differ based on the geographic area. The project is located Outside the Greater Downtown, and the maximum FAR is 0.3.

Open Space/Agriculture (OS/A): This designation allows for agriculture, parks, single-family residential units, farm worker housing, wetlands, wildlife reserves, and other similar and compatible uses and structures related to the primary use of the property for preservation of natural resources or agriculture. Lands under this designation are intended to remain unincorporated and under the jurisdiction of San Joaquin County. The minimum parcel size is 40 acres, maximum density is 1 dwelling unit per parcel, and maximum FAR is 0.01. The Open Space/Agriculture land use designation within the Project area is currently proposed to be approximately 54 acres of the Project site located near the French Camp Slough. This area would not be developed or otherwise altered by the proposed Project.

EXISTING CITY OF STOCKTON ZONING DESIGNATIONS

The Project site is zoned IL (Industrial, Light), CG (Commercial, General), and OS (Open Space).¹ Figure 2.0-6 depicts the City's zoning districts for the Project site and the surrounding areas. Below is a general description of the zoning districts within the Project site.

IL (Industrial, Limited) District: This zone is applied to areas appropriate for light manufacturing uses that may generate more nuisance impacts than acceptable in commercial zoning districts and whose operations are totally conducted indoors. Includes retail stores and ancillary office uses. The IL zoning district is consistent with the industrial land use designation of the General Plan.

CG (Commercial, General) District: This zone is applied to areas appropriate for a wide variety of general commercial uses, including retail, personal and business services; commercial recreational uses; and a mix of office, commercial, and/or residential uses. The CG zoning district is consistent with the commercial land use designation of the General Plan.

OS (Open Space) District: This zone is applied to areas of the City with open space resources, including agricultural lands, wetlands, wildlife reserves, and other sensitive natural resources; passive recreational areas such as golf courses; or natural hazards. Structural uses are limited to those which support the maintenance and/or use of the open space area. The OS zoning district is consistent with the open space and agricultural land use designations of the General Plan.

SURROUNDING GENERAL PLAN DESIGNATIONS

Within San Joaquin County, lands to the north and east of the Project site are designated Public (P/F) and lands to the south are designated Urban Reserve (A/UR) and General (A/G). Within the City, lands to the west are designated Industrial. The City's General Plan also designates land to the east and south (within unincorporated San Joaquin County) as Industrial and Open Space/Agriculture. The City of Stockton and San Joaquin County General Plan land use designations for the Project site and surrounding areas are shown on Figure 2.0-5.

2.0.4 PROJECT GOALS AND OBJECTIVES

Consistent with the California Environmental Quality Act (CEQA), Guidelines Section 15124(b), a clear statement of objectives and the underlying purpose of the proposed Project shall be discussed. The principal objective of the proposed Project is to implement and achieve the goals and objectives of the General Plan through the approval and subsequent implementation of the South Stockton Commerce Center (SSCC) Project (the proposed Project). The objective of the proposed Project involves the development of approximately 422-acres of land which will include: industrial uses, commercial uses, open space, public facilities, and public roadway right-of-way land uses, as described below.

¹ The Stockton Zoning Map (last revised June 29, 2020) identifies the zoning for APN 177-050-09 as CG (Commercial), RM (Residential Medium-Density), and RH (Residential High-Density). However, City of Stockton Ordinance No. 2019-07-16-1501-02 (adopted July 16, 2019, effective August 15, 2019) rezoned APN 177-050-09 to IL (Industrial-Limited) and CG (Commercial), consistent with the Industrial and Commercial General Plan Land Use Designations. These zoning actions will be reflected in the next revision of the Stockton Zoning Map.

The Project area aims to develop, in multiple phases, a well-planned industrial project with the potential for limited industrial and warehousing type uses that will attract businesses to the City of Stockton and provide for local employment opportunities. The Project also provides for a seamless expansion of the existing industrial area located in southeast Stockton, in the vicinity of the Stockton Airport, and will create the opportunity for rail-served parcels from the adjacent Union Pacific rail line, if desired or needed by a potential user.

The following objectives have been identified for the proposed SSCC Project:

- Logical Expansion of an Existing Industrial Area: Seamless expansion of the existing industrial area around the Stockton Airport and being positioned to easily access multiple forms of transportation (i.e., rail, air, multiple state highways (I-5 and SR-99) and local road network) which will enhance the efficiencies of logistics in the region; and position future industrial users away from existing sensitive receptors (i.e., residential uses).
- Develop a Class A Industrial Complex and Amenities: The large-scale development (298 acres of industrial uses) provides for a class A-type industrial complex with a variety of building sizes suited for a variety of end users, landscaped roadways and open space elements along French Camp Slough. This setting provides for a centralized hub of similar and complimentary users that will promote the success of the overall Project.
- Employment Opportunities: Provide for local and regional employment opportunities that take advantage of the Project area's high level of accessibility, allow for the expansion of the City's economic base, help create a jobs/housing balance, and reduce the commute for regional residents.
- Improve Circulation: Create safe access to the industrial area by constructing an overpass of the Union Pacific Railroad line.
- Enhance Transportation: Create the ability to develop rail service to the three largest parcels within the SSCC Project Area, if needed.
- Public Facilities and Services: Provide infrastructure and services that meet City standards and integrate with existing and planned facilities.
- Phasing: Establish a logical phasing plan designed to ensure that each phase of development would include necessary public improvements required to meet City standards, while maintaining the functionality and feasibility of the Project.

2.0.5 PROJECT CHARACTERISTICS AND DESCRIPTION

PROJECT CHARACTERISTICS

The SSCC Project proposes a Tentative Map for the 422.22-acre site to create 13 development lots, two basin lots, two open space lots, one sewer pump station lot, and off-site sewer improvements. Of the 13 development lots, 12 will be for development of a mix of industrial uses and one will be for development of commercial uses.

More specifically, the SSCC Project Tentative Map proposes approximately 298 net acres of limited industrial uses. Although a final and definitive Site Plan is not currently proposed, for planning purposes a conceptual site plan was prepared to establish a target Floor Area Ratio (FAR) that was used to generate

the maximum square footage of building area for the Tentative Map and for purposes of environmental review. Based on a maximum FAR of 0.47, a maximum of 6,091,551 square feet of industrial type land uses could be developed throughout the site. Table 2.0-2, SSCC Land Use Summary, identifies the land uses and associated development potential.

TABLE 2.0-2: SSCC LAND USE SUMMARY

LAND USE	ACREAGE (NET)	TOTAL SQUARE FEET PER LAND USE	FLOOR AREA RATIO	MAXIMUM SQUARE FEET
Commercial	11.0	467,834	0.30	140,350
Industrial ¹	298.0	12,960,747	0.47	6,091,551
Open Space	54.0	--	--	--
Public Facilities (Storm Basins, Outfall and Pump Stations)	41.0	--	--	--
Roadway Right of Way	18.2	--	--	--
TOTAL	422.2	--	--	6,231,901

NOTE: FOR PURPOSES OF THE ENVIRONMENTAL ANALYSIS, A RANGE OF INDUSTRIAL USES IS ASSUMED. THESE USES INCLUDE GENERAL LIGHT INDUSTRIAL, INDUSTRIAL PARK, WAREHOUSING, MINI-WAREHOUSE, HIGH-CUBE TRANSLOAD AND SHORT-TERM STORAGE WAREHOUSE, HIGH-CUBE FULFILLMENT CENTER WAREHOUSE, HIGH-CUBE PARCEL HUB WAREHOUSE, AND HIGH-CUBE COLD STORAGE WAREHOUSE.

The SSCC Tentative Map (Figure 2.0-7) also proposes approximately 11 acres of general commercial uses located between Airport Way and the UPRR right-of-way. Similar to the industrial uses, a final Site Plan is not currently proposed; however, based on a FAR of 0.30, a maximum of 140,350 square feet of commercial land uses could be developed in this area; refer to Table 2.0-2.

The project proposes approximately 54 acres of open space areas within the site, which will include approximately seven acres of open space in which a portion of it will be for a habitat setback area located east of the UPRR, south of the future Commerce Drive (refer to the Circulation Improvements discussion below) and along French Camp Slough. The remaining 47 acres of open space area is associated with the French Camp Slough drainage area.

Approximately 41 acres of the site will be for public facilities uses to serve the development, including storm basins, outfall, and pump stations; refer to the Utilities and Planned Infrastructure Improvements discussion below. The Project proposes to locate a sewer pump lot (0.28 acres) at the northeast corner of Airport Way and future Commerce Drive, within the portion of the site designated Commercial. The project also includes off-site sewer improvements along Airport Way Project frontage, north until Industrial Drive. Figure 2.0-8 shows the proposed utility plan.

Approximately 18 acres of the site will consist of the proposed west-east road right-of-way (referred to as Commerce Drive), which will provide connections to the SR 99 Frontage Road and Airport Way; refer to the Circulation Improvements discussion below.

GENERAL PLAN AMENDMENT AND REZONE

Although the proposed SSCC Project is consistent with the site's existing General Plan and Zoning designations, due to the location of drive entrances for surrounding developments and the alignment of the future Commerce Drive, a General Plan Amendment and Rezone of the two areas between Airport

Way and the Union Pacific Railroad right-of-way is required. As seen on Figures 2.0-5 and 2.0-6, these areas are currently designated Commercial and Industrial in the Envision Stockton 2040 General Plan and are zoned CG and IL, respectively. The current boundaries of the designations will be modified (i.e., redrawn) to be consistent with the future Commerce Drive right-of-way center line. The area to the north of the Commerce Drive right-of-way centerline will be designated Commercial and zoned CG and the area to the south of the Commerce Drive right-of-way centerline will be designated Industrial and zoned IL. Figure 2.0-9 and Figure 2.0-10 show the proposed boundary modifications to the General Plan land use designations and Zoning districts for these two areas.

CIRCULATION IMPROVEMENTS

The Project proposes a west-east trending primary road referred to as Commerce Drive that will provide access to Airport Way to the west and the 99 Frontage Road to the east. A grade-separated crossing over the UPRR right-of-way will be constructed to accommodate the primary access road and avoid conflicts with the UPRR rail line.

The majority of Commerce Drive is proposed to have a 78-foot right-of-way with one 16-foot traffic lane in each direction, and a 16-foot center turn lane. Five-foot landscaped areas would separate the traffic lanes from the 8-foot sidewalks on both the north and south sides of the road.

As Commerce Drive approaches the intersection with Airport Way, the right-of-way will be reduced to 77 feet 5 inches and provide one 16-foot westbound traffic lane, a 14-foot left turn lane, a 14-foot eastbound traffic lane, and a 16-foot eastbound traffic lane. A five-foot landscaped area and 8-foot sidewalk would only be provided on the north side of the road between the intersection with Airport Way and just east of the grade separated structure.

The grade separated crossing over the UPRR right-of-way will be 40-feet with one 16-foot travel lane in each direction. An eight-foot pedestrian walkway will be provided on the north side of the overcrossing.

As part of the Project, a 10-foot-wide right-of-way will be dedicated along Airport Way, adjacent to the Project site. Improvements at Airport Way would also occur due to the signalization of this intersection.

The Project also proposes to potentially include rail service to up to three large parcels (parcels 2, 3, and 4) within the Project site. A potential railroad spur line would extend east from the UPRR along the Project site's northern edge providing rail access to the parcels. The future industrial developer(s) of Parcels 2, 3 and 4 will make the ultimate decision to utilize rail service to these parcels. The design and layout of the Tentative Map (and the Draft EIR) has assumed that this service would be provided.

The 99 Frontage Road will provide access to the Arch Road and SR 99 Interchange. Airport Way will provide access to both the French Camp/Arch Road and Interstate 5 Interchange and the French Camp and the SR 99 Interchange.

UTILITIES AND PLANNED INFRASTRUCTURE IMPROVEMENTS

The construction of infrastructure improvements will be required to accommodate development of the proposed Project, as described below. It should be noted that the potential environmental impacts

associated with off-site infrastructure improvements associated with the larger Tidewater Crossing Project, which included the SSCC Project site, were analyzed as part of the Tidewater Crossing Project Environmental Impact Report (SCH No. 2005122101) certified on October 28, 2008. The Tidewater Crossing Project and the associated infrastructure improvements, which are not under construction or constructed, yet, are considered baseline conditions. Thus, the SSCC Project environmental analysis will focus on the proposed on-site improvements.

Potable Water. The Project proposes a 24-inch water transmission trunk line to be located within the proposed Commerce Drive right-of-way. The proposed 24-inch water line will connect to the existing City of Stockton water main in Airport Way and travel east along the proposed Commerce Drive right of way to the 99 Frontage Road. At this point, as part of the Newcastle Road and South Airport Way Water Transmission Main Project, the 24-inch water line will travel east to Newcastle Road and tie into the City's existing water line. Environmental impacts associated with the Newcastle Road and South Airport Way Water Transmission Project installation and operation were analyzed as part of a Mitigated Negative Declaration (SCH No. 2009042082), dated April 2010. It is noted that the alignment for this water transmission line is being realigned from what was originally anticipated in both a segment within the SSCC Project site and a segment east of State Route 99. The portion of the realignment within the SSCC Project site is analyzed as part of the overall infrastructure for the proposed Project. The balance of the water transmission line realignment that is outside of the Project site (east of State Route 99) is being analyzed under a separate amended CEQA document that is currently being prepared. The Project also proposes a 12-inch water service line to be located with the Commerce Drive right of way, parallel to the 24-inch water transmission main. The proposed 12-inch water line will connect to the proposed 24-inch water line just west of the 99 Frontage Road and will travel west along the proposed Commerce Drive right of way. The 12-inch line will connect back into the 24-inch transmission line on the east of the existing railroad tracks before the start of the grade separated structure. Water services for the proposed project will tie directly into the proposed 12-inch main, unless an alternative method is approved by the City of Stockton through a Water Master Plan. An example of a possible alternative method would be to provide services to the Project through 12-inch minimum diameter service stubs connected directly to the 24-inch transmission main. This would eliminate the need for a separate, parallel water main within Commerce Drive.

Wastewater. The wastewater collection and conveyance system that will serve the proposed Project will consist of engineered infrastructure consistent with the City's existing infrastructure requirements. Sewer will be designed to accommodate buildout of the Tidewater Area which will be served by System 13 (the portion west of SR 99). A Master Plan document was prepared by VVH Consulting Engineers and approved by the City of Stockton on August 11, 2020 as part of the Tidewater Crossing Utility Master Plan project. This Master Plan document identifies the construction of future force mains within Airport Way and a future pump station. As identified in the Master Plan, the South Stockton Commerce Center Project proposes to build only the 18-inch force main within Airport Way; the future 20-inch force main will be constructed by a future development, when needed, for the full buildout of System 13. The location of the sewer pump station shown on the proposed tentative map is based on the Master Plan documents prepared by VVH Consulting Engineers. The Tidewater Crossing Overall Sewer Master Plan is included in Appendix H of this EIR.

The proposed sewer pump station is proposed to be located at the northeast corner of Airport Way and the future Commerce Drive. A sewer line (ranging from 8 to 24 inches) will be located within the proposed Commerce Drive right-of-way. Within the western portion of Parcel 2, the sewer line within the Commerce Drive right-of-way will shift north outside of the Commerce Drive right-of-way into Parcel 2 and extend west along the southern edge of Parcel 1, continuing under the UPRR right-of-way. West of the UPRR right-of-way, the sewer line will extend into the proposed Commerce Drive right-of-way. The 24-inch sewer line within Commerce Drive will connect to a proposed 36-inch sewer line within Airport Way whereupon it will flow to a proposed regional sewer pump station located at the intersection of Airport Way and Commerce drive. An 18-inch force main within Airport Way will extend from the regional sewer pump station to the intersection of Arch Airport Road and Airport Way where it will connect to a gravity pipeline. This gravity pipeline will be upsized from an existing 33-inch gravity sewer pipeline to a 48-inch gravity sewer pipeline. The 48-inch gravity pipeline will extend to the intersection of Industrial Drive. The off-site sewer pipeline improvements total approximately 10,843 linear feet (or about 2.05 miles).

Storm Drain. Two (2) basins would be needed to provide flood control for the Project. The Project proposes to construct two (2) storm drain detention basins to provide flood control. The primary basin will be approximately 28 acres located within the northwest corner of the Project site, east of the UPRR right-of-way. The Project proposes to construct a storm drainage flood channel generally along the northern edge of Parcels 3, 4 and 5. The drainage channel will connect to a proposed outfall to the primary detention basin, generally located within the northeast area of the basin. A flood control channel is proposed along the north edge of the Project site in order to collect additional flood waters and direct them to the proposed basins. Pump stations at the basins will be used to drain the basins and will discharge through an outfall structure located along French Camp Slough. Storm water conveyance systems will be installed along Commerce Drive to collect storm water runoff and direct it to the proposed basins. The conveyance pipes are proposed to range in size from 15-inch diameter to 96-inch diameter.

A storm drain (ranging from 15 to 96 inches) is proposed within the proposed Commerce Drive right-of-way. The storm drain will extend from Commerce Drive along the southern and western edges of Parcel 1 and connect to the proposed outfall to the detention basin. The proposed outfall and a storm drain pump station are proposed to be located generally within the southwest area of the basin.

The secondary basin will be approximately 13 acres, located west of the UPRR right-of-way, between the future Commerce Drive and French Camp Slough. The proposed storm drain for Commerce Drive will connect to the proposed outfall to the detention basin, generally located within the northeast area of the basin. An outfall from the secondary basin to French Camp slough will also be constructed just east of the secondary basin. Two options are being considered: 1) An overland flow discharge where the water will be released into a rock lined structure to slow flow velocities before flowing into French Camp Slough; or 2) A more traditional outfall structure and rock rip rap placed on the banks of French Camp Slough.

DEVELOPMENT AGREEMENT

The proposed project includes a request for approval of a Development Agreement (DA) governing the relationship between the City of Stockton and the SSCC Applicant, or its successors. A primary purpose of the DA may be to regulate development density and intensity over an extended period of time; however, the DA would not increase the maximum density or development intensity. The DA will also be used to

establish other agreements between the City/Applicant (or its successors) related to the project. Such other agreements may include, but are not limited to, commitments to project entitlements and development standards as well as any other administrative and/or financial relationships that may be defined during the review of the initial application or subsequent applications related to developing the project.

CITY OF STOCKTON WAREHOUSE ORDINANCE COMPLIANCE

At the December 12, 2023, Stockton City Council meeting, the Council adopted a Stockton Municipal Code Title 16 Ordinance establishing new logistics warehouse development standards. These standards became effective on January 11, 2024, in compliance with separate settlement agreements between the City and the State Attorney General's Office (AG) and Sierra Club. The Ordinance is referred to as the City's "Warehouse Ordinance." On July 9, 2024, the City Council considered and approved amendments to the City's Warehouse Ordinance. One of the amendments changed the Warehouse Ordinance to apply to annexation projects submitted after December 31, 2023 (SMC Section 16.80.390(A)). Since the Project Area was annexed prior to December 31, 2023, this amendment exempts the SSCC Project from the City's Warehouse Ordinance. Although exempt from the Warehouse Ordinance, the Project Applicant elected to incorporate feasible measures within the Warehouse Ordinance into the Project Description, as listed below. The purpose of the Warehouse Ordinance is to realize the economic growth potential that comes with warehouse development while protecting the environment and public health.

The Ordinance is included in Section 16.80.390 of the City's Municipal Code. The following Development Standards or a version of the Development Standards found in Section 16.80.390(B) of the Code will be voluntarily applied to the proposed Project:

1. Site Plan Design. The following standards shall apply to all entitlement reviews (site plan), grading and improvement plans, and construction permit reviews associated with facilities subject to the Logistics Warehouse standards. A copy of these standards shall be included on the approved (issued) construction plan and kept on-site during all phases of construction.
 - a. (This subsection of the Warehouse Ordinance is not being applied to SSCC Project as no sensitive receptors are within 300 feet of the Project site).
 - b. (This subsection of the Warehouse Ordinance is not being applied to SSCC Project as no sensitive receptors are within 300 feet of the Project site).
 - c. (This subsection of the Warehouse Ordinance is not being applied to SSCC Project as no sensitive receptors are within 300 feet of the Project site).
 - d. (This subsection of the Warehouse Ordinance is not being applied to SSCC Project as no sensitive receptors are within 300 feet of the Project site)..
 - e. (This subsection of the Warehouse Ordinance is not being applied to SSCC Project as no sensitive receptors are within 300 feet of the Project site).
 - f. All on and off-site landscaping shall comply with SMC Chapter 16.56 (Landscaping).

- g. All landscaping shall be drought tolerant and, to the extent feasible, comprised of species with low biogenic emissions. Palm trees shall not be utilized.
- h. All landscaping areas shall be properly irrigated for the life of the facility to allow for plants and trees to maintain growth with no undue pruning.
- i. Tree maintenance shall comply with SMC Section 16.56 as a certified Landscape Architect must prepare the Preliminary and Final Landscape plan and certify the planting is water efficient at the time of construction permit approval.
- j. Trees shall be installed in automobile parking areas to provide at least 35% shade cover of passenger vehicular parking areas within fifteen years. Trees shall be planted that can meet this requirement. The 35% shade created by trees amount can be substituted for solar canopy upon approval by the Director.
- k. To facilitate the installation of future electric vehicle charging stations for light-heavy duty (LHD), medium-heavy duty (MHD), and heavy-heavy duty (HHD) trucks, in connection with each individual development proposal, the subject building improvement plans shall identify an area for future HHD truck charging stations and the subject developer shall install conduit from the power source to the identified area.
- l. Provide EV charging stations for automobiles per building code and provide conduit to a future designated area for Heavy Duty Truck Charging Facility.
- m. All truck turning movements at entrances, exits, and street intersections shall be located on local industrial, collector or arterial streets and all vehicle entries shall be designed to prevent truck access to local and back-up residential collector streets.
- n. All trucks and commercial vehicles serving the facility shall occur in compliance with the City of Stockton Truck Traffic Route Map in SMC 10.08.030 and Surface Transportation Assistance Act (STAA) Truck Route Map.
- o. Off-street loading shall comply with Section 16.64.110 Off-street loading space standards and Section 16.36.30 to ensure driveway access and onsite circulation are designed and maintained to increase public safety and reduce congestion on public streets.
- p. Signs shall be posted inside and outside of the building and facility indicating all off-site parking is prohibited for adjacent street that do not permit parking.
- q. All truck driveway exits shall include signs directing truck drivers to the truck routes identified in the City of Stockton Truck Traffic Route Map and State Highway System designations.

- r. Upon commencement of operations, the tenant/operator of the facility shall be required to restrict truck idling on site to a maximum of three (3) minutes, subject to exceptions defined by CARB's commercial vehicle idling requirements.
- 2. Building Design. The following standards shall apply to all entitlement reviews (design review), grading and improvement plans, and construction permit reviews associated with facilities subject to the Logistics Warehouse standards. A copy of these standards shall be included on the approved (issued) construction plan and kept on-site during all phases of construction.
 - a. All qualifying facilities should be constructed using "cool roof" materials with an aged reflectance and thermal emittance values that are equal to or greater than those specified in the current edition of the California (CAL) Green Building Tier 1 Standards.
 - b. Architectural and industrial coatings (e.g. paints) applied on the qualifying facility(ies) shall be consistent with the Volatile Organic Compound (VOC) content limits set by the San Joaquin Valley Air Pollution Control District (SJVAPCD) or the current edition of the California Green Building Standards Code (CALGreen), whichever is most restrictive. Developer or tenant is not required to exercise control over materials painted offsite.
 - c. Qualifying facilities shall be constructed in compliance with the most current edition of all adopted City building codes, including the adopted Green Building Standards Code. Prior to the issuance of building permits, the applicant/developer of the qualifying facility(ies) shall demonstrate (e.g., provide building plans) that the proposed buildings are designed and will be built.
 - d. Each developer of an individual specific development proposal shall prepare the subject building structures in such a way to accommodate future solar panels pursuant to applicable Building Code requirements.
 - e. The building permit application for qualifying facilities must demonstrate that sufficient power will be provided from clean energy sources for the operational base power use at the start of operations. Developers shall have the following options, or any combination of options, for procuring clean energy to meet operational base power needs for new building structures. Options may include 1) installing solar panels on the subject building or building site, and/or 2) procuring 100% clean energy from AVA Community Energy, and/or 3) participating in California's Community Solar Program.
 - f. Operational base power is defined as the amount of power required to supply loads for all ordinary operational uses of the site. Loads for all ordinary operational uses of the site include, as non-exhaustive examples, loads for minimal heating for fire sprinklers, primary office space lighting, HVAC, warehouse power, warehouse lighting, site lighting, minimum power for dock positions (including chargers for yard equipment and any plug-ins for transport refrigeration units), and the amount of light-duty electric vehicle supply equipment required by CalGreen code. Loads for all

ordinary operational uses of the site exclude, as non-exhaustive examples, loads for specialized equipment, nonstandard automation or material handling systems, and chargers for heavy-duty trucks.

- g. The office portion of a building's rooftop that is not covered with solar panels or other utilities shall be constructed with light colored roofing material with a solar reflective index of not less than 78.
 - h. Electrical Room Sizing. To ensure that warehouse electrical rooms are sufficiently sized to accommodate the potential need for additional electrical panels, either a secondary electrical room shall be provided in the building, or the primary electrical room shall be sized 25% larger than is required to satisfy the service requirements of the building or the electrical gear shall be installed with the initial construction with 25% excess demand capacity.
 - i. Warehouse Dock Seal Doors. Exterior loading dock doors that are adjacent to conditioned or indirectly conditioned spaces shall have dock seals or dock shelters installed at the time of permitting.
 - j. Onsite Equipment Infrastructure. Project should provide infrastructure to support charging of electric power onsite equipment.
 - k. Demonstration of compliance with the San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 9510 (Indirect Source Review) is required prior to obtaining any building permit for a qualifying facility.
 - l. Tenant/Operator of the qualifying facility(ies) shall enroll in the United States Environmental Protection Agency's SmartWay Program. Proof of enrollment shall be given to the Community Development Department prior to issuance of a Certificate of Occupancy of a Building Permit for the facility.
3. Construction Permit Approval. The following standards shall apply to all construction-related activity associated with facilities subject to the Logistics Warehouse standards. A copy of these standards shall be included on the approved (issued) construction plan and kept on-site during all phases of construction.
- a. Qualifying facilities shall comply with the San Joaquin Valley Air Pollution Control District (SJVAPCD) requirements prior to beginning construction.
 - b. All off-road construction equipment, with a power rating of less than 19 kilowatts (e.g., plate compactors, pressure washers, shall be electric-powered.
 - c. Subject to all other idling restrictions, off-road diesel-powered construction equipment shall not be left in the "on position" for more than 10 hours per day.
 - d. Temporary electrical hookups to all construction yards and associated work areas shall be required.

- e. Temporary signage shall be posted in public view throughout the construction site indicating truck idling lasting more than five (5) minutes is prohibited. The signs shall include contact information for the facility operator or designee responsible for receiving complaints (i.e. excessive dust, fumes, odors) for the site, and contact information for the San Joaquin Valley Air Pollution Control District's on-line complaint system and its complaint call line for those interested in filing a complaint. Any complaints made to the facility operator's designee shall be answered within 72 hours of receipt.
- f. The construction contractor(s) shall maintain on the construction site an inventory of construction equipment, maintenance records, and datasheets, including design specifications and emission control tier classifications.
- g. The facilities shall require the construction contractor to establish one or more locations for food or catering truck service to construction workers and to cooperate with food service providers to provide consistent food service.
- h. The facilities shall require the construction contractor to provide transit and ridesharing information for construction workers.

The On-Going Operations Regulations in Section 16.80.390(C) of the Code will be voluntarily applied to the Project operations:

On-Going Operations: The following standards shall be implemented during all on-going business.

1. All forklifts, yard trucks, and other equipment used for on-site movement of trucks, trailers and warehoused goods, as well as landscaping maintenance equipment used on the site, shall be electrically powered or zero-emission unless new technology is determined to be commercially unavailable.
2. Where transport by temperature-controlled trucks or trailers is proposed, on-site electrical hookups shall be provided at loading docks. Idling or use of auxiliary truck engine power to power climate-control equipment shall be prohibited.
3. Employers shall provide employees with transit route and schedule information on systems serving the facility area and coordinate ridesharing amongst employees.
4. Employers shall provide on-site locations for food or catering truck service and cooperate with food service providers to accommodate food service to operations employees.
5. All outdoor areas allowing smoking shall be located at least 25 feet from the nearest property line.
6. All trucks, supportive vehicles and equipment shall be kept onsite in all loading, storage, and parking areas, and kept behind locked gates during nonbusiness hours.

2.0 PROJECT DESCRIPTION

7. Truck queuing, idling, or circling of vehicles, on public streets adjacent to the facility is prohibited.
8. Periodic yard and parking area sweeping shall be provided to minimize dust generation.
9. Diesel Generators are prohibited, except in emergency situations and during construction when establishing the facility's new electrical service connection. In those temporary cases, all generators shall have Best Available Control Technology (BACT) that meets CARB's Tier 4 emission standards.

2.0.6 USES OF THE EIR AND REQUIRED AGENCY APPROVALS

This EIR may be used for the following direct and indirect approvals and permits associated with adoption and implementation of the proposed Project.

CITY OF STOCKTON

The City of Stockton will be the Lead Agency for the proposed Project, pursuant to the State Guidelines for Implementation of CEQA, Section 15050. Actions that would be required from the City include, but are not limited to the following:

- Certification of the EIR;
- Adoption of the Mitigation Monitoring and Reporting Program;
- Approval of City of Stockton General Plan Amendment
- Approval of City of Stockton Zoning Map Amendment
- Approval of Tentative and Final maps;
- Approval of Improvement Plans;
- Approval of Grading Plans;
- Approval of Building Permits;
- Approval of Site Plan Review;
- Approval of Design Review;
- Approval of Completeness Review;
- Approval of Development Agreement;
- Issuance of grading, encroachment, and building permits;
- City review and approval of Project utility plans.

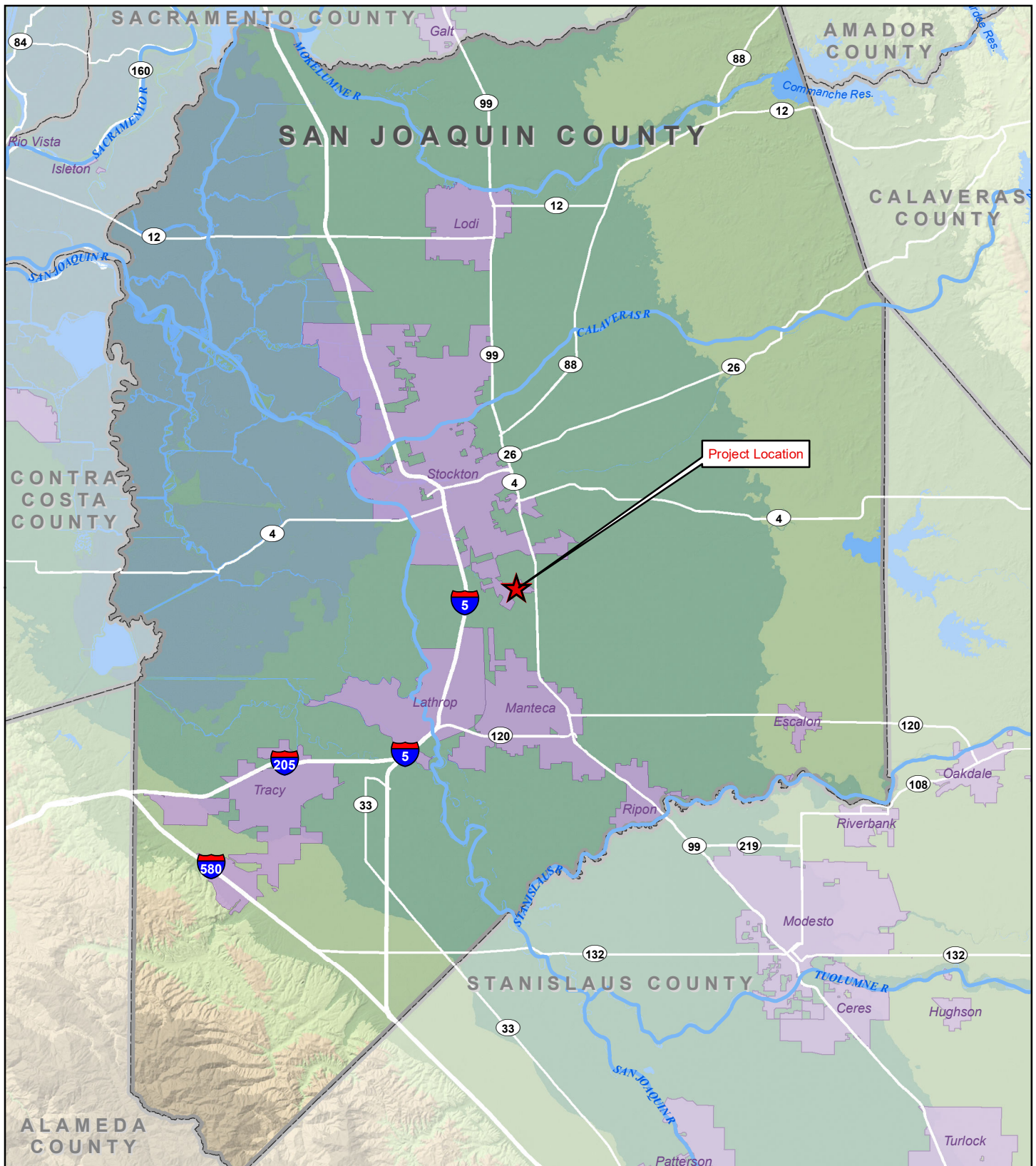
OTHER GOVERNMENTAL AGENCY APPROVALS

The following agencies are considered "Responsible Agencies" and will need to rely on this EIR to issue permits or approve certain aspects of the proposed Project. A "Responsible Agency" is any public agency, other than the lead agency, which has the responsibility for approving the project where more than one public agency is involved. Other governmental agencies that may require approval include, but are not limited to, the following:




- Public Utilities Commission – Approval of proposed overpass;

- California Department of Fish and Wildlife – Streambed Alteration Agreement pursuant to Section 1602 of the California Fish and Game Code;
- United States Army Corps. Of Engineers (USACE) – Permitting of federal jurisdictional areas pursuant to Section 404 of the Clean Water Act.
- Central Valley Regional Water Quality Control Board (CVRWQCB) – Storm Water Pollution Prevention Plan (SWPPP) approval pursuant to the Clean Water Act;
- CVRWQCB – Water quality certification pursuant to Section 401 of the Clean Water Act;
- San Joaquin Valley Air Pollution Control District (SJVAPCD) – Construction-related permits;
- San Joaquin Valley Air Pollution Control District (SJVAPCD) – As an industrial development, the Project may be subject to Indirect Source Review (ISR) by the SJVAPCD. The storm drain pump stations may require an Authority to Construct and, Permit to Operate;
- Stockton Fire Department – Plan check of the site plan and roadway improvements for adequate emergency vehicle access and fire flow capabilities; Plan check of all building plans for Early Suppression, Fast Response (ESFR) fire sprinkler system;
- Central Valley Flood Protection Board (CVFPB) – Approval of the storm drainage flood channel;
- San Joaquin County Flood Control and Water Conservation District – Approval of the proposed storm basins, outfall and pump stations;
- Sacramento & San Joaquin Drain District (SSJDD) – Approval for construction of an outfall;
- San Joaquin Council of Governments (SJCOG) – Issuance of incidental take permit under the San Joaquin Multi-Species Habitat Conservation and Open Space Plan (SJMSCP); and
- San Joaquin Council of Governments (SJCOG) – Review and approval of Project plans for consistency with the Airport Land Use Compatibility Plan (ALUCP) for the Environs of Stockton Metropolitan Airport.

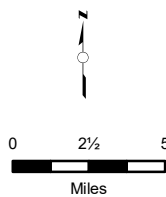
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LEGEND

-  Project Location
-  County Boundary
-  City Area

Sources: CalAtlas; California County GIS Departments. Map date: July 20, 2020.

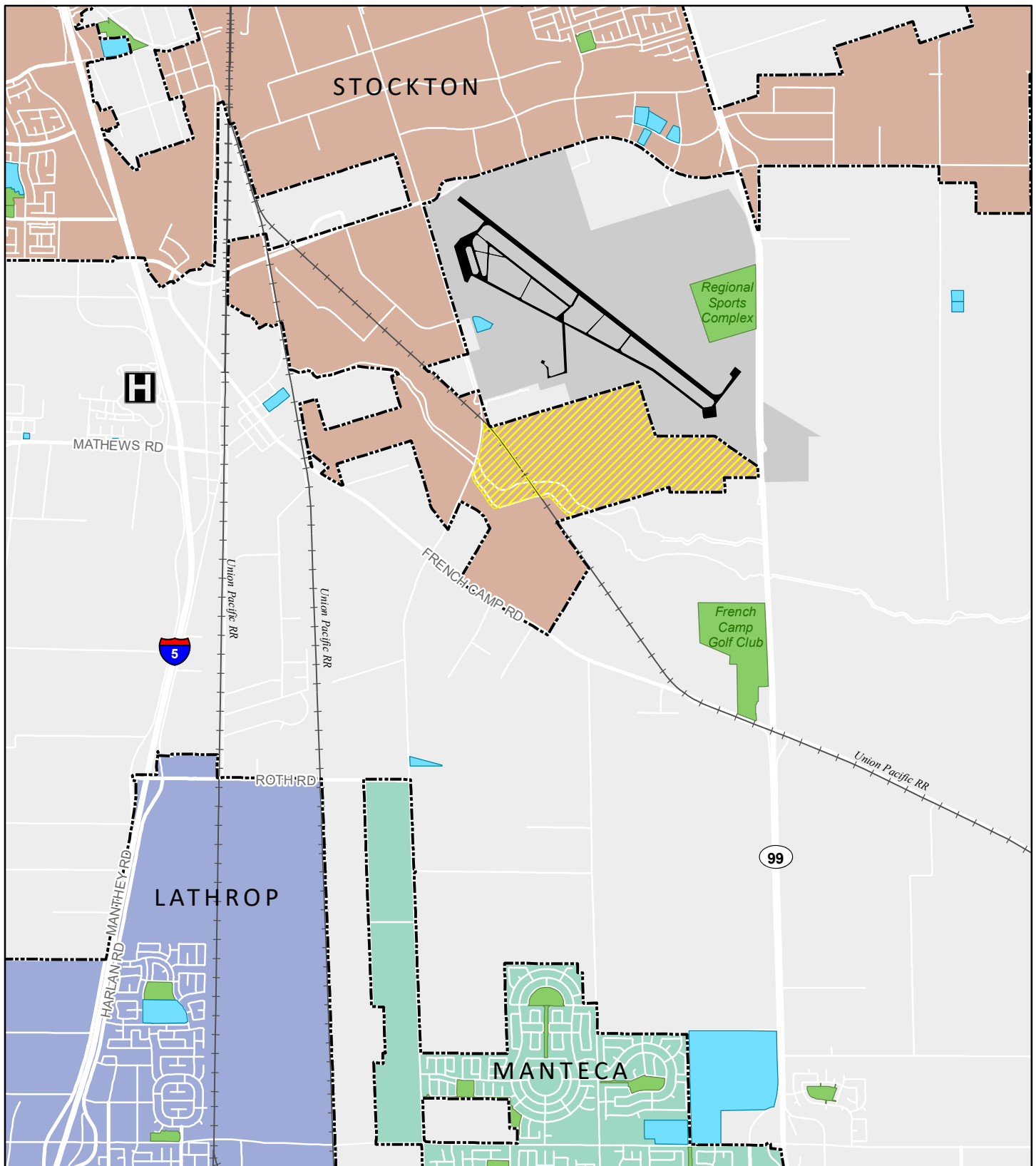


SOUTH STOCKTON COMMERCE CENTER

Figure 2.0-1. Regional Location Map

DeNovo Planning Group
A Land Use Planning, Design, and Environmental Firm

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LEGEND

Project Boundary

City Limits

Stockton

Lathrop

Manteca

Public Facilities

Park

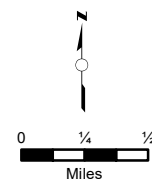
Schools

San Joaquin General Hospital

Stockton Metropolitan Airport

Runway

Airport Area

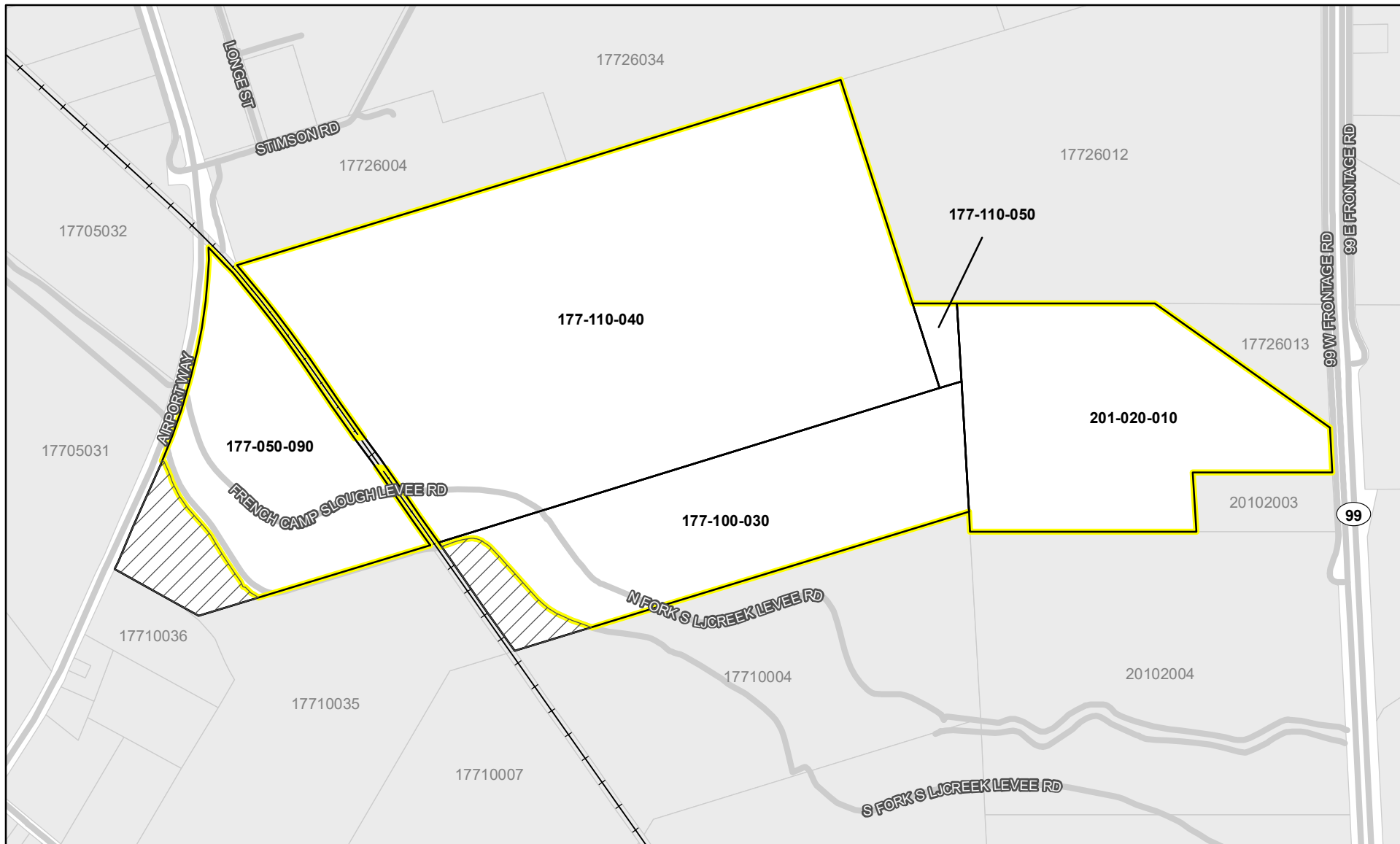


SOUTH STOCKTON COMMERCE CENTER

Figure 2.0-2. Vicinity Map

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

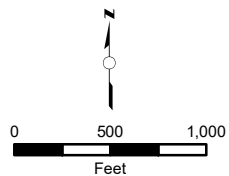
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LEGEND

- Project Boundary
- Project Parcels
- Portion of Parcel Excluded from Project
- Surrounding Parcels

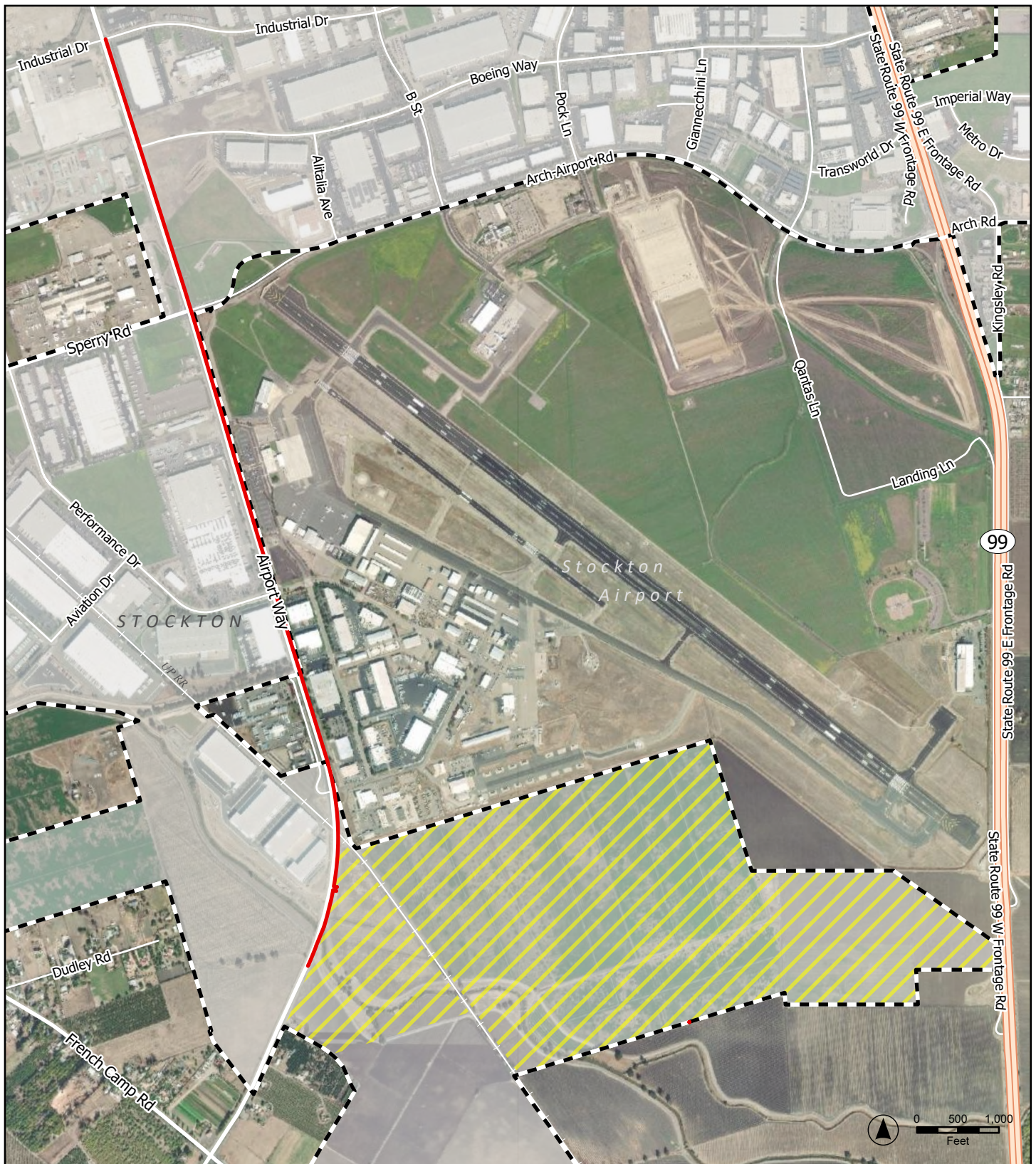
Source: San Joaquin County GIS. Map date: July 20, 2020. Revised: December 29, 2020.



SOUTH STOCKTON COMMERCE CENTER

Figure 2.0-3. Assessor's Parcel Map

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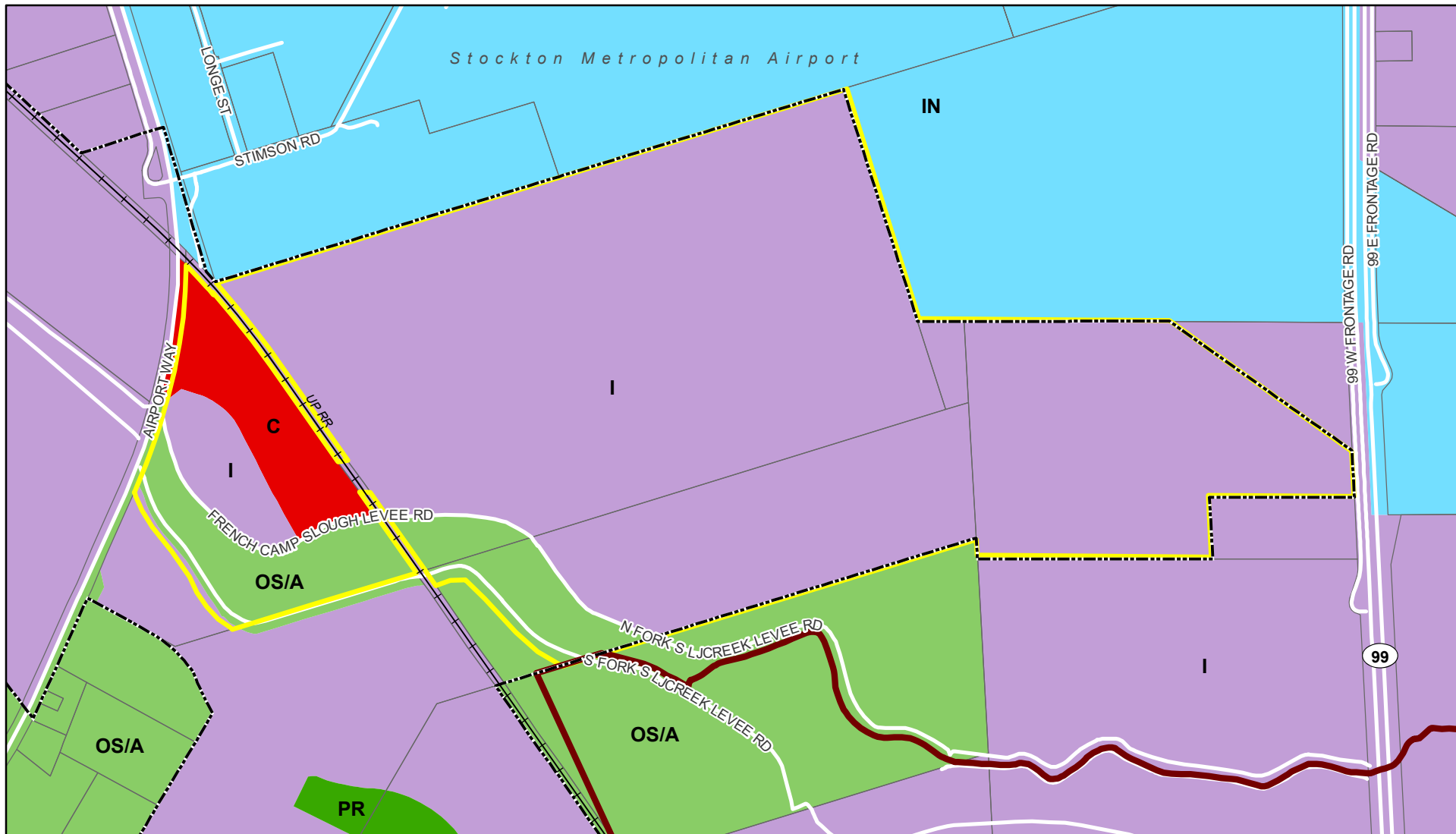
Legend

- Project Area
- Stockton City Limits
- Offsite Sewer Line Improvements

SOUTH STOCKTON COMMERCE CENTER

Figure 2.0-4. Aerial View of Project
with Offsite Improvements

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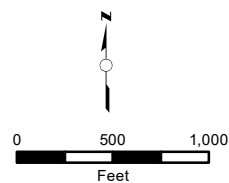


LEGEND

- Project Boundary
- Stockton City Limits
- Stockton Sphere of Influence
- Assessor Parcel

City of Stockton General Plan Land Use

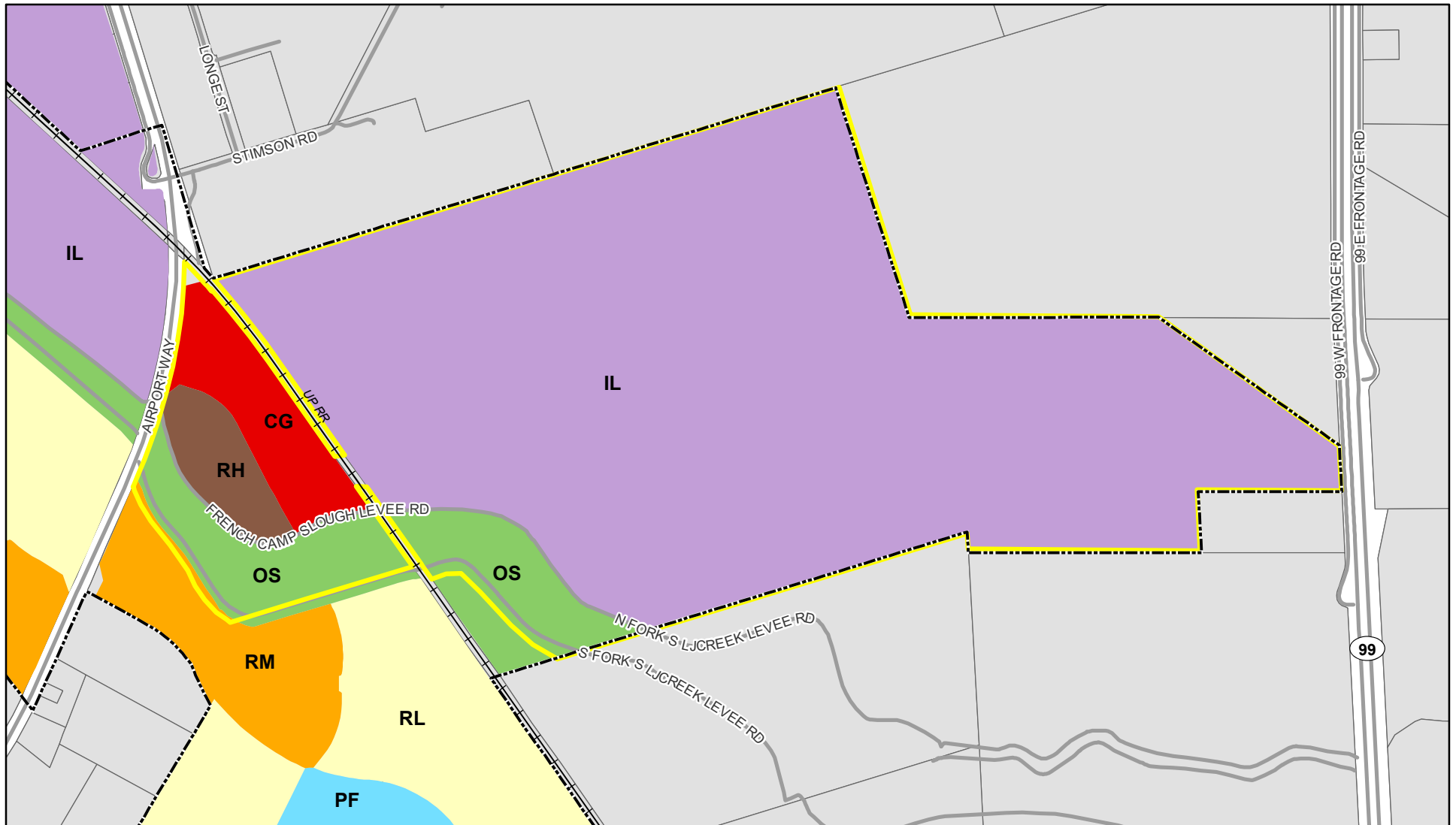
- C - Commercial
- I - Industrial
- IN - Institutional
- OS/A - Open Space/Agriculture
- PR - Parks and Recreation



SOUTH STOCKTON COMMERCE CENTER

Figure 2.0-5. Existing General Plan Land Use

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LEGEND

Project Boundary
 Stockton City Limits
 Assessor Parcel

City of Stockton General Plan Land Use

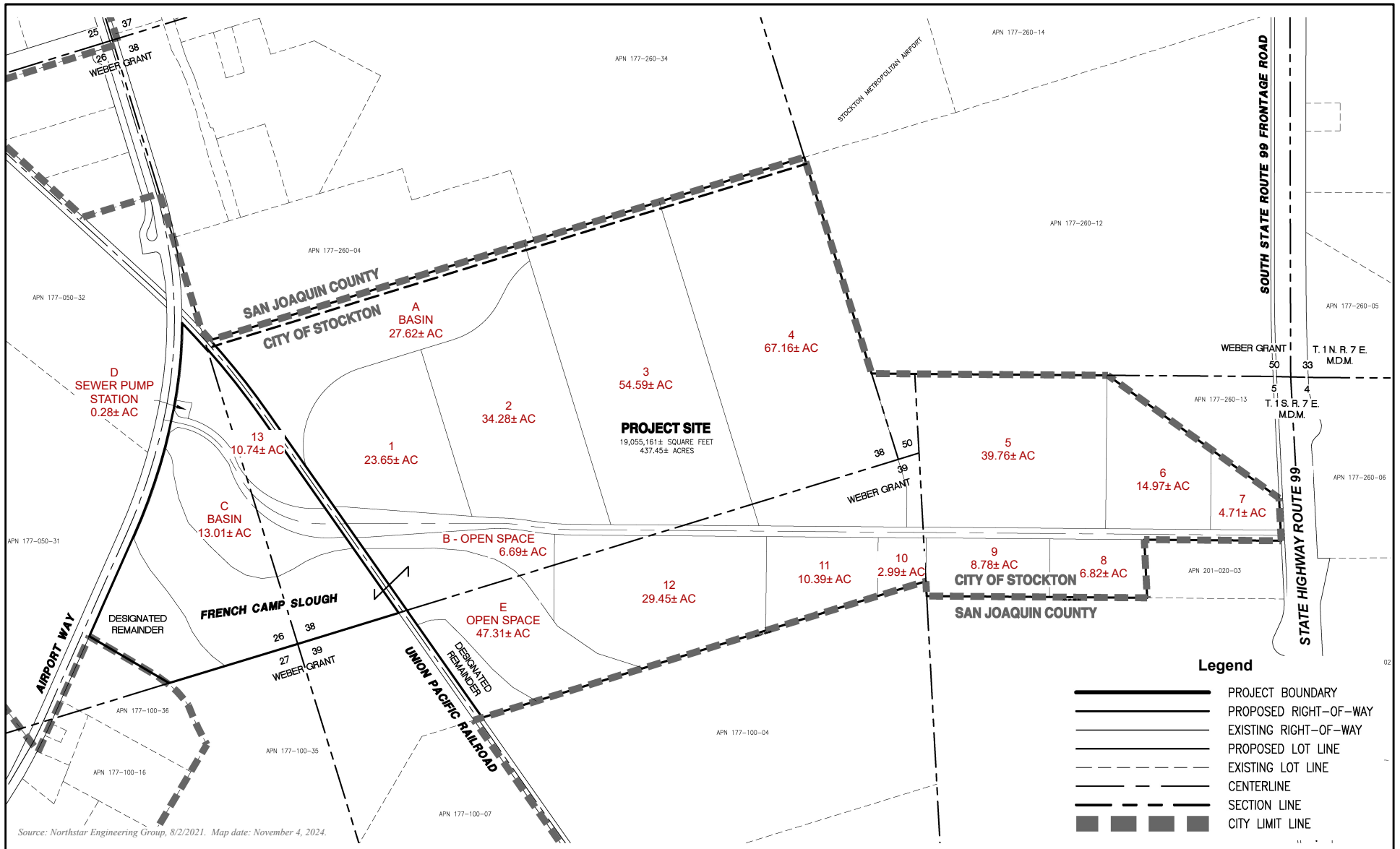
 RL - Residential Low	 IL - Industrial Limited	 OS - Open Space
 RM - Residential Medium	 CG - Commercial General	
 RH - Residential High	 PF - Public Facility	

Sources: San Joaquin County GIS; City of Stockton GIS. Map date: July 20, 2020. Revised: December 29, 2020; February 8, 2021.

SOUTH STOCKTON COMMERCE CENTER

Figure 2.0-6. Existing Zoning Districts

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General Notes

1. ALL IMPROVEMENTS SHALL BE CONSTRUCTED AS PER THE CITY OF STOCKTON STANDARD PLANS AND SPECIFICATIONS, EXCEPT AS NOTED.

2. STORM DRAINAGE: BY POSITIVE SYSTEM DISCHARGE TO AN ON-SITE STORM DRAINAGE BASIN AND PUMP STATION. THE PROPOSED SYSTEM WILL DISCHARGE TO FRENCH CAMP SLOUGH. ALL IMPROVEMENTS TO BE CONSTRUCTED TO THE CITY OF STOCKTON STANDARDS.

3. SEWAGE DISPOSAL: BY CITY OF STOCKTON SEWER SYSTEM

4. WATER SUPPLY: BY CITY OF STOCKTON WATER SYSTEM

5. STREET LIGHTING: SHALL BE INSTALLED AS PER THE CITY OF STOCKTON

6. THE SUBDIVIDER HEREBY RESERVES THE RIGHT TO FILE "MULTIPLE SUBDIVISION MAPS" AS SET FORTH BY THE SUBDIVISION MAPPING ACT, ARTICLE 4, SECTION 66456.1., AND FILE PARCEL MAPS FOR REASON OF SALE. ALL PARCEL LINES SHALL CONFORM TO THIS TENTATIVE MAP.

7. PUBLIC UTILITY EASEMENTS WILL BE PROVIDED ALONG ALL STREET FRONTAGE.

8. EXISTING EASEMENTS SHOWN ON ORIGINAL PLAN SET, SHEET TM2.4.

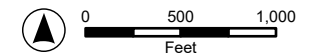
9. BUILDING SETBACKS WILL BE AS PER CITY OF STOCKTON STANDARDS.

10. NO EXISTING STRUCTURE ON SITE.

11. EXISTING WALNUT ORCHARD TO BE REMOVED. ALL OTHER EXISTING TREES ARE TO REMAIN. ANY SEPTIC TANKS, LEACH FIELDS, AND WELLS ON SITE WILL BE REMOVED OR ABANDONED AS PER CITY OF STOCKTON REQUIREMENTS.

SOUTH STOCKTON COMMERCE CENTER

Figure 2.0-7. Proposed Tentative Map



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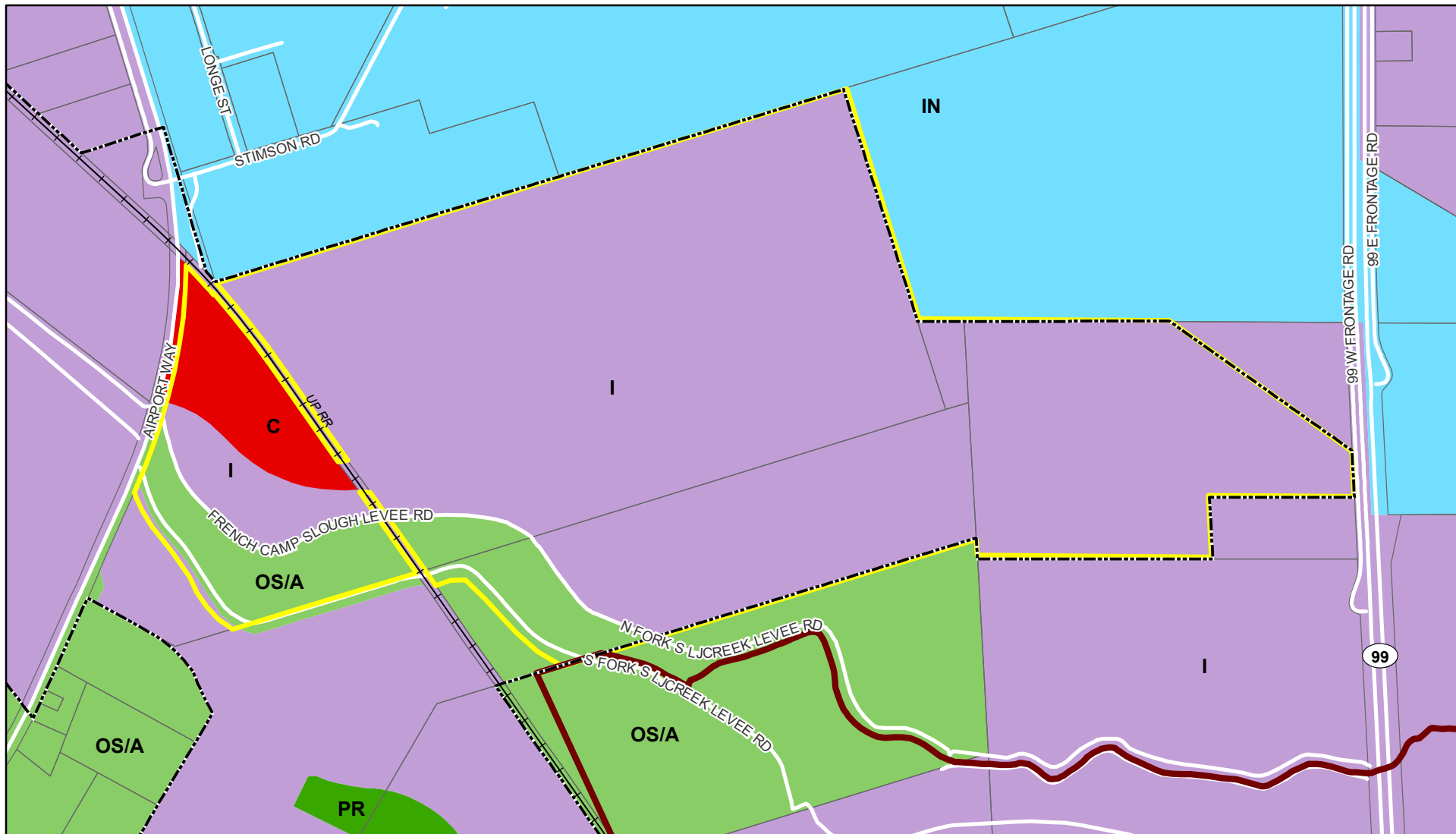
- Legend**
- Project Area
 - Asphalt
- Transportation**
- Street A Centerline
 - Potential Railway Spur Line
- Sanitary Sewer**
- Sanitary Sewer Line
 - Offsite Sewer Line Improvements

- Water**
- Water Line Trunk (24-inch)
 - Water Line (12-inch)
 - Water Line Laterals
- Storm Drain**
- Storm Drain
 - Storm Drain Basin

SOUTH STOCKTON COMMERCE CENTER

Figure 2.0-8. Utility Plan

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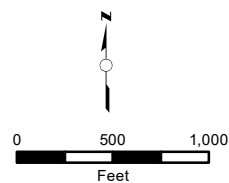


LEGEND

- Project Boundary
- Stockton City Limits
- Stockton Sphere of Influence
- Assessor Parcel

City of Stockton General Plan Land Use

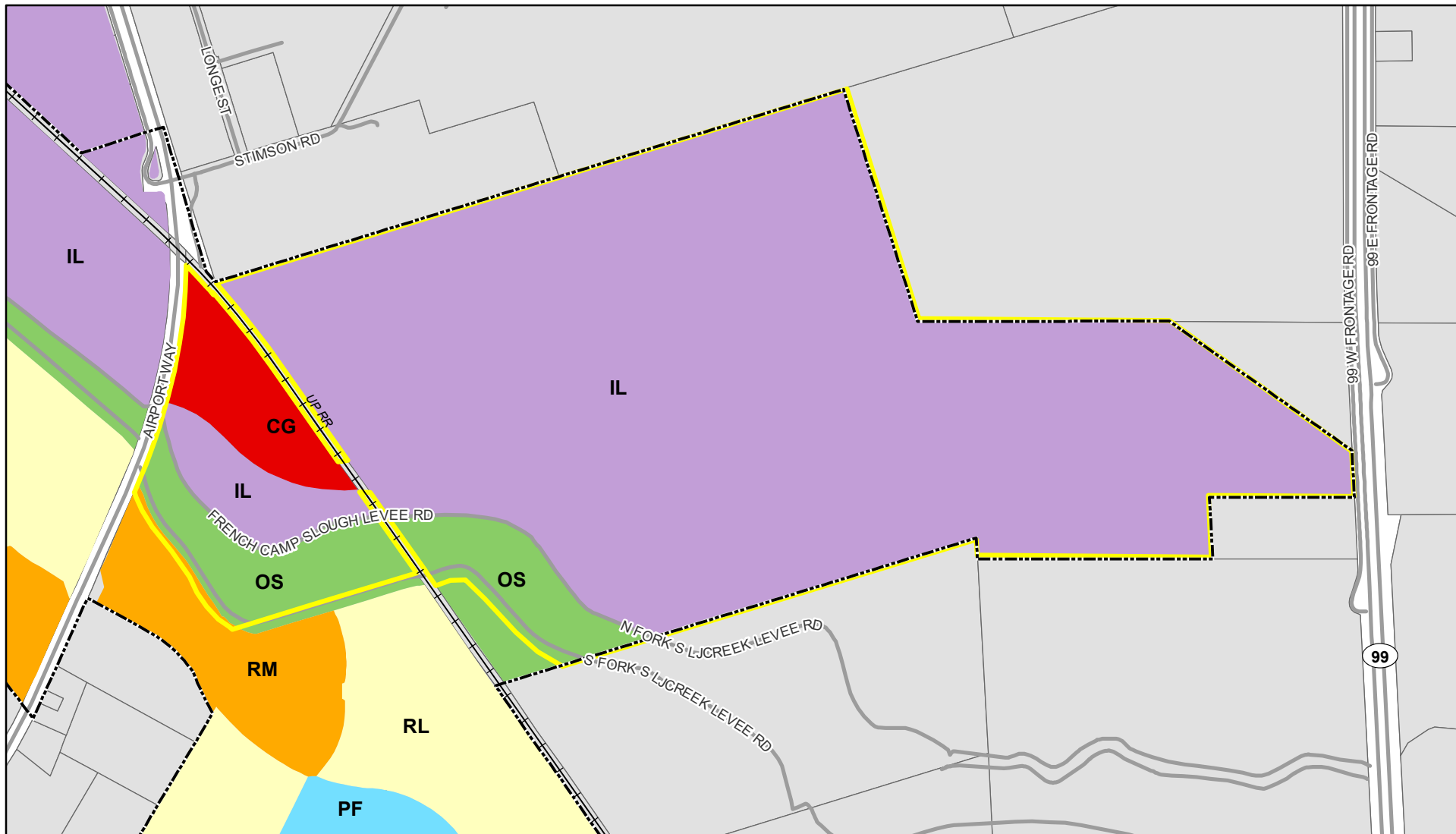
- C - Commercial
- I - Industrial
- IN - Institutional
- OS/A - Open Space/Agriculture
- PR - Parks and Recreation



SOUTH STOCKTON COMMERCE CENTER

Figure 2.0-9. Proposed General Plan Land Use

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LEGEND

Project Boundary
 Stockton City Limits
 Assessor Parcel

City of Stockton General Plan Land Use

 RL - Residential Low	 IL - Industrial Limited	 OS - Open Space
 RM - Residential Medium	 CG - Commercial General	
 RH - Residential High	 PF - Public Facility	

Sources: San Joaquin County GIS; City of Stockton GIS. Map date: July 20, 2020. Revised: December 29, 2020; February 8, 2021.

SOUTH STOCKTON COMMERCE CENTER

Figure 2.0-10. Proposed Zoning Districts

De Novo Planning Group
 A Land Use Planning, Design, and Environmental Firm



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This section provides an overview of the visual character, scenic resources, views, scenic highways, and sources of light and glare that are encountered on the Project site and the vicinity. This section concludes with an evaluation of the impacts and recommendations for mitigating impacts. Information in this section is derived primarily from the California Department of Transportation (Caltrans) Scenic Highways Program website (2020), San Joaquin County General Plan (2016), Envision Stockton 2040 General Plan (2018), and City of Stockton Municipal Code (2020).

There were no comments received during the public review period or scoping meeting for the Notice of Preparation regarding this topic.

3.1.1 ENVIRONMENTAL SETTING

VISUAL AND SCENIC RESOURCES

Visual resources are generally classified into two categories: scenic views and scenic resources. Scenic views are elements of the broader viewshed such as mountain ranges, valleys, and ridgelines. They are usually mid-ground or background elements of a viewshed that can be seen from a range of viewpoints, often along a roadway or other corridor. Scenic resources are specific features of a viewing area (or viewshed) such as trees, rock outcroppings, and historic buildings. They are specific features that act as the focal point of a viewshed and are usually foreground elements.

Aesthetically significant features occur in a diverse array of environments within the region, ranging in character from urban centers to rural agricultural lands to natural water bodies. Features of the built environment that may also have visual significance include individual or groups of structures that are distinctive due to their aesthetic, historical, social, or cultural significance or characteristics. Examples of the visually significant built environment may include bridges or overpasses, architecturally appealing buildings or groups of buildings, landscaped freeways, and a location where a historic event occurred.

SCENIC HIGHWAYS AND CORRIDORS

Scenic highways and corridors make major contributions to the quality of life enjoyed by the residents of a region. The development of community pride, the enhancement of property values, and the protection of aesthetically-pleasing open spaces reflecting a preference for the local lifestyle are all ways in which scenic corridors are valuable to residents.

Scenic highways and corridors can also strengthen the tourist industry. For many visitors, highway corridors will provide their only experience of the region. Enhancement and protection of these corridors ensures that the tourist experience continues to be a positive one and, consequently, provides support for the tourist-related activities of the region's economy.

Scenic Highways

A scenic highway is generally defined by Caltrans as a public highway that traverses an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural attributes. A highway may be designated scenic depending upon how much of the natural landscape

can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

The status of a proposed state scenic highway changes from eligible to officially designated when the local governing body applies to Caltrans for scenic highway approval, adopts a Corridor Protection Program, and receives notification that the highway has been officially designated a Scenic Highway.

Only one highway section in San Joaquin County is listed as a Designated Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of Interstate 580 (I-580) from Interstate 5 to Interstate 205. This route traverses the edge of the Coast Range to the west and Central Valley to the east. The City of Stockton, including the Project site, is not visible from this roadway segment, which is located approximately 20 miles southwest of the site.

Scenic Corridors/Routes

A scenic corridor is the view from the road that may include a distant panorama and/or the immediate roadside area. A scenic corridor encompasses the outstanding natural features and landscapes that are considered scenic. It is the visual quality of the man-made or natural environments within a scenic corridor that are responsible for its scenic value. Commonly, the physical limits of a scenic corridor are broken down into foreground views (zero to one quarter mile) and distant views (over one quarter mile). In addition to distinct foreground and distant views, the visual quality of a scenic corridor is defined by special features, which include:

- Focal points - prominent natural or man-made features which immediately catch the eye.
- Transition areas - locations where the visual environment changes dramatically.
- Gateways - locations which mark the entrance to a community or geographic area.

Figure NCR-1 of the Natural and Cultural Resources Element of the San Joaquin County General Plan designates scenic routes in the county. The closest designated scenic route to the Project site is Interstate 5. The Project site is not visible from the segment of Interstate 5 that is designated a scenic route by the County General Plan. The Envision Stockton 2040 General Plan does not identify any scenic routes.

SCENIC WATER RESOURCES AND WILD AND SCENIC RIVERS

Water resources are important visual resources that draw tourists to the area for recreational opportunities. The most visually significant water body in the region is the San Joaquin River.

Wild and Scenic Rivers

Federal agencies have jurisdiction, under the Wild and Scenic Rivers Act, to designate rivers or river sections to “be preserved in free-flowing condition and...protected for the benefit and enjoyment of present and future generations.”

The San Joaquin River is not designated as a Wild and Scenic River under the Federal Wild and Scenic Rivers Act.

PROJECT SITE

The proposed Project site is comprised of 422.22 acres located in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport. The Project site is located west of the State Route (SR) 99 Frontage Road and SR 99 and east of Airport Way. The Union Pacific Railroad (UPRR) extends south from Airport Way bisecting the western portion of the site. French Camp Slough extends southeast from Airport Way across the southwestern portion of the site. It continues east under the UPRR and then south across the southwestern portion of the site, before continuing south off-site. The off-site sewer improvements would be located within the Airport Way right-of-way, and adjacent to the roadway in certain limited areas (such as northeast of the Airport Way and Arch Airport Road intersection, and northeast of the Airport Way and Boeing Way intersection).

Figures 2.0-1 and 2.0-2 in Chapter 2.0, Project Description, illustrate the regional location and Project vicinity.

The Project site is relatively flat and ranges in elevation from approximately 14 to 40 feet above mean sea level. As a result of site disturbance associated with the agricultural operations, limited natural scenic areas can be found within the Project site. There is little native vegetation located on the site, and the flat topography of the site renders the site essentially void of prominent natural visual features. Native/naturalized habitat is located along French Camp Slough. Existing trees are found in the orchard portion of the site, as well as along French Camp Slough. There are no light sources on-site.

The unique or distinguishing visual or aesthetic characteristics of the Project site include the openness of the undeveloped agricultural land, which offers a vast expanse of cropland, and French Camp Slough. The undeveloped agricultural land can provide visual relief to a passerby/viewer from common manmade structures and visual obstructions found in an urban environment. The Project site's aesthetic value can be attributed to its openness and undeveloped nature, which contrasts the industrial nature to the north and northwest.

Throughout the year the land, used for agriculture, evolves from an environment that appears lush with vegetation (green farmland) to an environment that appears barren (tilled soil). Agricultural land in California's Great Central Valley is generally accepted as an important visual resource. The visual character is only occasionally interrupted by shrubbery and mature trees (primarily located along French Camp Slough), or by telephone poles (located along Airport Way).

Surrounding Land Uses

The Project site is primarily bounded by lands within the County to the north, east and south. Lands within the City of Stockton are located to the west. Uses within the surrounding area include the following:

- North – Rydberg Creek, Army National Guard and Stockton Airport. These uses are located within the County.
- East – Agricultural lands, 99 Frontage Road and SR 99.
- South – Agricultural lands and Duck and Lone Tree Creeks (French Camp Slough).

- West – The UPPR, Airport Way, and agricultural lands.

3.1.2 REGULATORY SETTING

STATE

California Scenic Highway Program

The intent of the California Scenic Highway Program is “to protect and enhance California’s natural scenic beauty and to protect the social and economic values provided by the State’s scenic resources.” Caltrans administers the program, which was established in 1963 and is governed by the California Streets and Highways Code §260 et seq. The goal of the program is to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of the adjacent land. Caltrans has compiled a list of state highways that are designated as scenic and county highways that are officially designated or eligible for designation as scenic. Scenic highway designation can provide several types of benefits to the region. Scenic areas are protected from encroachment of inappropriate land uses, free of billboards, and are generally required to maintain existing contours and preserve important vegetative features. Only low-density development is allowed on steep slopes and along ridgelines on scenic highways, and noise setbacks are required for residential development.

To obtain an official “Scenic Highway” designation, the State and Caltrans require a responsible local agency or Local Governing Body (LGB) to prepare a scenic corridor protection plan. In the Tracy area, San Joaquin County is the LGB. Corridor protection programs are required to contain the following five elements, which have been included in the San Joaquin County’s policies:

- Regulations of land use and density of development;
- Detailed land and site planning;
- Control of outdoor advertising;
- Careful attention to and control of earthmoving and landscaping; and
- The design and appearance of structures and equipment.¹

According to the Caltrans Scenic Highway Programs website, Caltrans monitors state-designated scenic routes in order to ensure each local jurisdiction’s consistency with State guidelines. Specifically, Caltrans District Scenic Highway Coordinator (DSHC) will review a scenic highway for compliance every five years, but can recommend the revocation of scenic designation at any time. To enforce the program, the DSHC will contact the responsible local agency or LGB, in this case, San Joaquin County. The LGB must either respond by submitting its current Corridor Protection Program or a letter of intent to request a revocation of the scenic designation. The DSHC reviews the

¹ Scenic Highways Program website, Frequently Asked Questions, <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways/lap-liv-i-scenic-highways-faq2>, accessed on November 25, 2019.

submittal and takes corrective action to resolve any issues of non-compliance, certifies compliance, or recommends revocation of scenic designation.

LOCAL

The City of Stockton General Plan identifies the importance of scenic resources in establishing community identity. The Stockton Municipal Code contains standards, provisions, and procedures related to landscaping design, light and glare, and design review.

Envision Stockton 2040 General Plan

The Envision Stockton 2040 General Plan includes several policies and actions that are relevant to an evaluation of the visual quality of the Project site. General Plan policies applicable to the Project are identified below:

POLICIES: LAND USE ELEMENT

- LU-1.3. Improve the visual quality of the urban environment to be more welcoming and inviting at key gateways and travel corridors into the city.
- LU-5.1. Integrate nature into the city and maintain Stockton's urban forest.
- LU-5.2. Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development.
- LU-5.3. Define discrete and clear city edges that preserve agriculture, open space, and scenic views.

ACTIONS: LAND USE ELEMENT

- LU-5.1A. Require renovated and new projects to provide open spaces that create gateways, act as collectors for pedestrian systems, and/or provide a social focal point for a project and the surrounding community and corridor, as appropriate.
- LU-5.1B. Protect, preserve, and improve riparian corridors and incorporate them in the City's parks, trails, and open space system.
- LU-5.1C. Require landscape plans to incorporate native and drought-tolerant plants in order to preserve the visual integrity of the landscape, conserve water, provide habitat conditions suitable for native vegetation, and ensure that a maximum number and variety of well-adapted plants are maintained.
- LU-5.3A. At the interface between development and rural landscapes, use landscaping and other attractive edging instead of soundwalls and similar utilitarian edges of developments to maintain the visual integrity of open space.
- LU-5.3B. Coordinate with San Joaquin County and property owners in unincorporated areas to preserve agricultural land and open space areas in the unincorporated county that contribute to maintaining clear boundaries between cities.

City of Stockton Municipal Code

Section 16.56.240, Landscape Standards, of Chapter 16.56, Landscaping Standards, of the City Municipal Code contains standards and provisions related to landscaping design, installation, and maintenance. The primary purpose of this section is to provide general design standards and plant material requirements. This section also includes provisions related to water efficient landscaping consistent with the State Model Water Efficient Landscape Ordinance that would apply to the proposed Project. Section 16.72.240, Landscaping, of Chapter 16.72, Public Improvements, of the City Municipal Code contains standards and provisions related to landscaping for nonresidential and residential development. This section includes provisions related to landscape design that would apply to the proposed Project. These applicable provisions include street tree and other landscaping area design standards for residential subdivisions, setback area landscaping standards for nonresidential subdivisions, and standards for irrigation, installation, and maintenance of landscaping.

Section 16.32.070, Light and Glare, of Chapter 16.32, General Performance Standards, of the City Municipal Code contains standards and provisions related to exterior lighting. According to the Code, light or glare from mechanical or chemical processes or from reflective materials used or stored on a site shall be shielded or modified to prevent emission of light or glare beyond the property line, or upward into the sky. The Code also includes the following provisions:

- A. Exterior lights shall be located so as to eliminate spillover illumination or glare onto adjoining properties and to prohibit any interference with the normal operation or enjoyment of adjacent property.
- B. Exterior lights shall be made up of a light source, reflector, and shielding devices so that, acting together, the light beam is controlled and not directed across a property line or upward into the sky. Bare bulbs shall not be allowed.
- C. Lighting fixtures used to illuminate an outdoor advertising display shall be mounted on the top of the advertising structure and be directed downward.
- D. Exterior light fixtures existing and legally installed prior to the effective date of the ordinance codified in this Development Code are exempt from the requirements of this section. When existing luminaries are reconstructed or replaced, the reconstruction or replacement shall comply with this section.
- E. Lights used for holiday decorations are exempt from the requirements of this section.
- F. Portable temporary lighting used by law enforcement or emergency services personnel to protect life or property, are exempt from the requirements of this section.

Chapter 16.120, Design Review, of the City Municipal Code establishes procedures for the design review of development throughout the City in order to encourage development that is compatible and harmonious with the design and use of surrounding properties and with the City in general. The primary purpose of this chapter is to set forth the types of projects that are subject to the City's design review process, the use of the design guidelines, and the application filing, processing and review procedures.

City of Stockton Citywide Design Guidelines

The Design Guidelines, adopted in 2004, serve as a reference point for the City's expectations for quality development and provide guidance for the designated review authority during the design review process. The Design Guidelines provide minimum design criteria for the achievement of functional and attractive developments that fit within the context of their surroundings and do not clash with neighboring buildings. In general, the Design Guidelines are intended to ensure that new or modified development preserves or improves the positive characteristics of the city's image while avoiding negative impacts. The Design Guidelines are organized into seven chapters and includes objectives and design standards for each type of development project that is subject to design review.

3.1.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on aesthetics if it will:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with the applicable zoning and other regulations governing scenic quality; and/or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

IMPACTS AND MITIGATION MEASURES

Impact 3.1-1: Project implementation may result in substantial adverse effects on scenic vistas and resources or substantial degradation of visual character (Significant and Unavoidable)

The proposed Project would convert the 422.22-acre Project site from its existing use as primarily agricultural land for:

- Development of approximately 298 acres of industrial uses (building and parking areas);
- Development of approximately 41 acres of public facilities (storm basins and pump stations);
- Creation of approximately 54 acres of open space (open space area and avoidance of French Camp Slough); and
- Development of up to a maximum of 6,091,551 square feet of employment-generating industrial uses.

3.1 AESTHETICS AND VISUAL RESOURCES

The General Plan does not designate scenic vistas. However, the General Plan identifies open space, agricultural fields, and riparian areas, particularly along the San Joaquin River and the Calaveras River, as significant visual features. Given the relatively flat topography of the city, views within the core of the city are generally limited to the built environment. Views along the periphery can be more expansive with fewer developed features blocking views of surrounding open space, agricultural fields, and riparian areas.

Although the Project site is not designated as a scenic vista by the General Plan, the site does contain some of the significant visual features discussed in the General Plan, such as agricultural fields and riparian area along French Camp Slough. The above-referenced public views are primarily available to motorists traveling along the major transportation corridors, some of which travel at highway speed (such as along Airport Way and SR 99). In addition, these public views of agricultural fields and riparian areas are characteristic of San Joaquin County, and exist throughout the region.

Implementation of the proposed Project would change the existing visual character of the site from a primarily agricultural site to an urbanized site. Impacts related to a change in visual character are largely subjective and very difficult to quantify. People have different reactions to the visual quality of a project or a project feature, and what is considered “attractive” to one viewer may be considered “unattractive” to other viewers. The agricultural lands on the project provide visual relief from urban and suburban developments, and help to define the character of a region. The loss of agricultural lands can have an adverse cumulative impact on the overall visual character and quality of a region.

As described above, Project implementation would introduce industrial uses, as well as supporting infrastructure into an area that is currently undeveloped and is primarily occupied by agricultural uses. The proposed Project would include visual components that would assist in enhancing the appearance of the site following site development. Landscaping improvements, such as new street trees and other vegetation landscaping, would be provided throughout the Project site, including along the site boundary. Additionally, the proposed Project would also include approximately 54 acres of open space near French Camp Slough in order to minimize conflicts between the uses, maintain the habitat area along the Slough, and provide a visual shield.

The proposed Project would result in the conversion of the land from agricultural uses, which would contribute to changes in the regional landscape and visual character of the area. In order to reduce visual impacts, development within the Project site is required to be consistent with the General Plan and the Stockton Zoning Ordinance which includes design standards in order to ensure quality and cohesive design of the Project site and ensure the public views from the transportation corridors would be of high quality. These standards include specifications for exterior lighting, landscaping, and architectural design and compatibility. Implementation of the design standards would ensure quality design throughout the Project site, and result in a Project that would be internally cohesive while maintaining aesthetics similar to surrounding uses.

Nevertheless, the loss of the visual appearance of the existing agricultural land on the site will change the visual character of the Project site in perpetuity. Compliance with the requirements within the General Plan and Zoning Code would reduce visual impacts to the greatest extent feasible;

however, the proposed Project would permanently convert the agricultural uses to urbanized uses. This is considered a **significant and unavoidable** impact. There is no additional feasible mitigation available that would reduce this impact to a less than significant level.

Impact 3.1-2: Project implementation may substantially damage scenic resources within a state scenic highway (Less than Significant)

As previously discussed, one highway section in San Joaquin County is listed as a Designated Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of Interstate 580 (I-580) from Interstate 5 to Interstate 205. This route traverses the edge of the Coast Range to the west and Central Valley to the east. The City of Stockton, including the Project site, is not visible from this roadway segment, which is located approximately 20 miles southwest of the site. Therefore, impacts related to a state scenic highway would be **less than significant**.

Impact 3.1-3: Project implementation may result in light and glare impacts (Less than Significant with Mitigation)

Implementation of the proposed Project would introduce new sources of light and glare into the vacant Project site. New sources of glare would occur primarily from the windshields of vehicles travelling to and from the Project site and from vehicles parked at the site. There is also the potential for reflective building materials and windows to result in increases in daytime glare. A detailed lighting plan has not been prepared for the proposed Project, but for the purposes of this analysis, it has been conservatively assumed that nighttime street lighting, exterior lighting around the warehouses and buildings, and safety lighting will be installed throughout areas of the Project site. It is assumed that security lighting will be installed within the various parking areas surrounding the warehouses and buildings. Therefore, light and glare could adversely affect day or nighttime views in the area.

Section 16.32.070, Light and Glare, of Chapter 16.32, General Performance Standards, of the City Municipal Code contains standards and provisions related to exterior lighting for both commercial and residential development. The primary purpose of this section is to regulate exterior lighting to balance the safety and security needs for lighting with the City's desire to prevent emissions of light or glare beyond the property line, or upward into the sky.

Without a detailed lighting plan, increase of light spillover and nighttime lighting to adjacent properties is a potentially significant impact. Implementation of Mitigation Measure 3.1-1 would reduce potential impacts associated with nighttime lighting and light spillage onto adjacent properties to a **less than significant** level.

MITIGATION MEASURE(S)

Mitigation Measure 3.1-1: *The approved site plan shall conform with the most recent version of the California Green Building Standards Code (California Code of Regulations, Title 24, Part 11) adopted by the City of Stockton at the time of site plan approval, including compliance with Section 5.106.8, which establishes mandatory requirements for outdoor lighting systems of nonresidential development that are designed to minimize the effects of light pollution.*

The approved site plan shall comply with the applicable provisions of the Stockton Municipal Code pertaining to lighting, including Sections 16.36.060(B) and 16.32.070, which require exterior lighting to be shielded and directed away from adjoining properties and public rights-of-way. Compliance shall be documented in a photometric (lighting) plan or other documentation acceptable to the City.

New structures, landscaping, and site improvements shall conform with Section 5.02 of the City of Stockton Design Guidelines.

This section provides an overview of the agricultural resources in San Joaquin County and the City of Stockton, agricultural capability of the soils on the Project site, and existing site conditions. This section concludes with an evaluation of the impacts related to agricultural resources and recommendations for mitigating impacts as needed. Information in this section is derived primarily from the *California Important Farmlands Map* (California Department of Conservation, 2012), the *San Joaquin County Agricultural Report* (San Joaquin County Agricultural Commissioner, 2018), and the Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS, 2016).

Comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the following: Sierra Club – Delta Sierra Group – Mother Lode Chapter (October 27, 2020), and California Department of Conservation – Division of Land Resources Protection (October 13, 2020). Each of the comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

As discussed in the Initial Study prepared for the proposed Project, the Project site is not under a Williamson Act contract. There are no forest resources or zoning for forest lands located on the project site, or within the City of Stockton; thus, **no impact** would occur. These CEQA topics are not relevant to the proposed Project and will not be addressed further in this EIR.

3.2.1 ENVIRONMENTAL SETTING

SAN JOAQUIN COUNTY AGRICULTURE

San Joaquin County occupies a central location in California's vast agricultural heartland, the San Joaquin Valley. The County's Agricultural Commissioner's most recent published Crop Report (2018) contains the following information about agriculture in the County.

Agricultural Value

San Joaquin County has a total land area of 1,391 square miles. The total acreage of crop land in 2018 was 709,050.

The gross value of agricultural production in San Joaquin County for 2018 was \$2,594,246,000. This represents an increase of 2.62 percent from 2017. Table 3.2-1 lists the top eight commodities in San Joaquin County in 2018.

TABLE 3.2-1: SUMMARY COMPARISON OF CROP VALUES

PRODUCT TYPE	2016 VALUE IN DOLLARS
Field Crops	\$200,369,000.00
Vegetable Crops	\$245,902,000.00
Fruit and Nut Crops	\$1,403,768,000.00
Nursery Products	\$120,004,000.00
Livestock and Poultry	\$120,100,000.00
Livestock and Poultry Products	\$467,289,000.00
Seed Crops	\$3,904,000.00
Apiary Products	\$32,910,000.00

SOURCE: SAN JOAQUIN COUNTY AGRICULTURAL REPORT, 2018.

AGRICULTURAL CAPABILITY

The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) identifies lands that have agriculture value and maintains a statewide map of these lands called the Important Farmlands Inventory (IFI). IFI classifies land based upon the productive capabilities of the land, rather than the mere presence of ideal soil conditions.

The suitability of soils for agricultural use is just one factor for determining the productive capabilities of land. Suitability is determined based on many characteristics, including fertility, slope, texture, drainage, depth, and salt content. A variety of classification systems have been devised by the State to categorize soil capabilities. The two most widely used systems are the Soil Capability Classification System and the Storie Index. The Capability Classification System classifies soils from Class I to Class VIII based on their ability to support agriculture, with Class I being the highest quality soil. The Storie Index considers other factors such as slope and texture to arrive at a rating. The IFI is in part based upon both of these two classification systems.

Soil Capability Classification System

The Soil Capability Classification System takes into consideration soil limitations, the risk of damage when soils are used, and the way in which soils respond to treatment. Capability classes range from Class I soils, which have few limitations for agriculture, to Class VIII soils that are unsuitable for agriculture. Generally, as the rating of the capability classification increases, yields and profits are more difficult to obtain. A general description of soil classifications, as defined by the NRCS is provided in Table 3.2-2 below.

TABLE 3.2-2: SOIL CAPABILITY CLASSIFICATION

CLASS	DEFINITION
I	Soils have slight limitations that restrict their use.
II	Soils have moderate limitations that restrict choice plants or that require moderate conservation practices.
III	Soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.
IV	Soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.
V	Soils are not likely to erode but have other limitations; impractical to remove that limits their use largely to pasture or range, woodland, or wildlife habitat.
VI	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture or range, woodland, or wildlife habitat.
VII	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife habitat.
VIII	Soils and landforms have limitations that preclude their use for commercial plans and restrict their use to recreation, wildlife habitat, water supply, or aesthetic purposes.

SOURCE: USDA SOIL CONSERVATION SERVICE.

Storie Index Rating System

The Storie Index Rating system ranks soil characteristics according to their suitability for agriculture from Grade 1 soils (80 to 100 rating), which have few or no limitations for agricultural production, to Grade 6 soils (less than 10) which are not suitable for agriculture. Under this system, soils deemed less than prime can function as prime soils when limitations such as poor drainage, slopes, or soil

nutrient deficiencies are partially or entirely removed. The six grades, ranges in index rating, and definition of the grades, as defined by the NRCS, are provided below in Table 3.2-3.

TABLE 3.2-3: STORIE INDEX RATING SYSTEM

GRADE	INDEX RATING	DEFINITION
1	80 – 100	Few limitations that restrict their use for crops
2	60 – 80	Suitable for most crops, but have minor limitations that narrow the choice of crops and have a few special management needs
3	40 – 60	Suited to a few crops or to special crops and require special management
4	20 – 40	If used for crops, severely limited and require special management
5	10 – 20	Not suited for cultivated crops, but can be used for pasture and range
6	Less than 10	Soil and land types generally not suited to farming

SOURCE: USDA SOIL CONSERVATION SERVICE, SOIL SURVEY OF SAN JOAQUIN COUNTY, CALIFORNIA, 1992.

In addition to soil suitability, other factors for determining the agricultural value of land include whether soils are irrigated, the depth of soil, water-holding capacity, and physical and chemical characteristics. Areas considered to have the greatest agricultural potential are designated as Prime Farmland or Farmland of Statewide Importance.

Important Farmlands

The Farmland Mapping and Monitoring Program (FMMP) is a farmland classification system administered by the California Department of Conservation. Important farmland maps are based on the Land Inventory and Monitoring criteria, which classify a land's suitability for agricultural production based on both the physical and chemical characteristics of soils, and the actual land use. The system maps five categories of agricultural land, which include important farmlands (prime farmland, farmland of statewide importance, unique farmland, and farmland of local importance) and grazing land, as well as three categories of non-agricultural land, which include urban and built-up land, other land, and water area.

IMPORTANT FARMLANDS IN SAN JOAQUIN COUNTY

Data from the Department of Conservation indicates that approximately 1,245 acres of Prime Farmland in the County was developed for other uses between 2014 and 2016 resulting in an existing total of 381,634 acres of Prime Farmland (51 percent of agricultural land). The remaining agricultural land is comprised of Farmland of Statewide Importance (11 percent), Unique Farmland (11 percent), Farmland of Local Importance (9 percent), and Grazing Land (18 percent). The types and acreages of farmland in 2014 and 2016 are shown below in Table 3.2-4.

3.2 AGRICULTURAL RESOURCES

TABLE 3.2-4: SAN JOAQUIN COUNTY FARMLANDS SUMMARY AND CHANGE BY LAND USE CATEGORY

LAND USE CATEGORY	2014-2016 ACREAGE CHANGES							
	TOTAL ACREAGE INVENTORIED				ACRES LOST	ACRES GAINED	TOTAL	NET
	2014		2016		(-)	(+)	ACREAGE CHANGED	ACREAGE CHANGED
	Acres	Percent	Acres	Percent				
Prime Farmland	382, 879	42%	381,634	42%	4,338	3,093	7,431	-1,245
Farmland of Statewide Importance	82,271	9%	82,618	9%	1,189	1,536	2,725	347
Unique Farmland	76,415	8%	81,920	9%	830	6,335	7,165	5,505
Farmland of Local Importance	73,429	8%	68,903	7%	9,150	4,624	13,774	-4,526
IMPORTANT FARMLAND SUBTOTAL	614,994	67%	615,075	67%	15,507	15,588	31,095	81
Grazing Land	132,950	15%	129,760	14%	3,385	195	3,580	-3,190
AGRICULTURAL LAND SUBTOTAL	747,944	82%	744,835	81%	18,892	15,783	34,675	-3,109
Urban and Built-up Land	93,888	10%	95,329	10%	365	1,806	2,171	1,441
Other Land	59,004	6%	60,602	7%	1,482	3,080	4,562	1,598
Water Area	11,766	1%	11,836	1%	235	305	540	70
TOTAL AREA INVENTORIED	912,602	100%	912,602	100%	20,974	20,974	41,948	0

SOURCE: CA DEPARTMENT OF CONSERVATION, DIVISION OF LAND RESOURCE PROTECTION TABLE A-30, 2016.

EXISTING SITE CONDITIONS

The 422.22-acre Project site is comprised of active agricultural fields. The majority of the fields produce watermelons, with a walnut orchard located in the eastern portion of the site. The agricultural lands on the Project site have been used historically for intensive agricultural purposes.

Surrounding Land Uses

The Project site is primarily bounded by lands within the County to the north, east and south. Lands within the City of Stockton are located to the west. Uses within the surrounding area include the following:

- North – Rydberg Creek, Army National Guard and Stockton Airport. These uses are located within the County.
- East – Agricultural lands, State Route (SR) 99 Frontage Road and SR 99.
- South – Agricultural lands and Duck and Lone Tree Creeks (French Camp Slough).
- West – The UPRR, Airport Way, and agricultural lands.

Figure 2.0-4 in Chapter 2.0, Project Description, provides an aerial view of the site.

Project Site Farmland Characteristics

The State of California Department of Conservation FMMP and San Joaquin County GIS data were used to illustrate the farmland characteristics for the Project site. Farmlands on the Project site are identified in Figure 3.2-1. The farmland classifications for the site and surrounding area are described below.

PRIME FARMLAND

Prime Farmland is farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. To receive this designation, land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Prime Farmland on the Project site totals approximately 158.6 acres (37.6 percent). Prime Farmlands are also located: north of the site, north of the Stockton Airport; adjacent east of the site and east of State Route (SR) 99; adjacent south of the site, and adjacent west of the site.

FARMLAND OF STATEWIDE IMPORTANCE

Farmland of Statewide Importance is farmland with characteristics similar to those of Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. To receive this designation, land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

The majority of agricultural land, approximately 259.3 acres (61.4 percent), is designated Farmland of Statewide Importance as shown on Figure 3.2-1. Farmland of Statewide Importance is also located in the general vicinity of the Project site to the north, east, south, and west.

UNIQUE FARMLAND

Unique Farmland is farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. To receive this designation, land must have been cropped at some time during the four years prior to the mapping date.

Approximately 4.3 acres (1.0 percent), located along the levee road, are designated Unique Farmland as shown on Figure 3.2-1. There is no Unique Farmland located near the Project site.

FARMLAND OF LOCAL IMPORTANCE

Farmland of Local Importance is land of importance to the local agricultural economy, as determined by each county's board of supervisors and a local advisory committee.

There is no Farmland of Local Importance on the Project site. Areas designated Farmland of Local Importance are located to the north and west of the Project site.

URBAN AND BUILT-UP LAND

Urban or Built-Up Land is classified by the FMMP as land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel.. This land can be used for residential, industrial, commercial, construction, institutional, public administration,

3.2 AGRICULTURAL RESOURCES

railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

There is no Urban and Built-Up Land located on the Project site. Areas designated Urban and Built-Up Land are located to the north, south, and west of the Project site.

RURAL RESIDENTIAL LAND

Rural Residential Land is classified by the FMMP with a building density of less than 1 structure per 1.5 acres, but with at least one structure per 10 acres.

There is no Rural Residential Land on the Project site. Areas designated Rural Residential Land are located to the northeast, southwest, and west of the Project site.

OTHER LAND

Other Land is not included in any other mapping category. Common examples include brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and non-agricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

Other Land is not located on the Project site, but Semi-Agricultural and Rural Commercial Land are located in the general vicinity of the Project site as shown on Figure 3.2-1.

Soils and Farmland Characteristics

A Custom Soil Survey was completed for the Project site using the NRCS Web Soil Survey program. Table 3.2-5 identifies the soils found on the Project site. The NRCS Soils Map is provided on Figure 3.2-2.

TABLE 3.2-5: PROJECT SOILS

NAME	ACRES IN PROJECT SITE	PERCENT OF PROJECT SITE	CAPABILITY CLASSIFICATION
Hollenbeck silty clay, 0 to 2 percent slopes	0.2	0.05%	IIs-5 irrigated, IVs-5 non-irrigated
Stockton clay, 0 to 2 percent slopes	158.4	37.52%	IIIs-8 irrigated, IVs non-irrigated
Jacktone clay, 0 to 2 percent slopes	259.3	61.42%	IIs-5 irrigated, IVs non-irrigated

NOTE: THE 4.3 ACRES OF ON-SITE WATER IS NOT INCLUDED IN THIS TABLE.

SOURCE: NRCS CUSTOM WEB SOIL SURVEY, 2020.

Hollenbeck soil series. This series consists of deep to duripan, moderately well drained soils that formed in alluvium from mixed rock sources. Hollenbeck soils are on basin rims and interfan basins. Slopes are 0 to 3 percent. This series is characterized as moderately well drained, slow runoff, and permeability is slow.

Stockton soil series. This series consists of somewhat poorly drained soils in basins. These soils are artificially drained and are deep to a hardpan. Stockton clay is formed in alluvium derived from

mixed rock sources. Slope ranges from 0 to 2 percent. This series is characterized as poorly drained, slow runoff, high shrink/swell potential, and permeability is slow.

Jacktone soil series. This series consists of somewhat poorly drained soils in basins. These soils are artificially drained and are moderately deep to a hardpan. Slopes range from 0 to 2 percent. This series is characterized as poorly drained, slow runoff, high shrink/swell potential, and permeability is slow.

3.2.2 REGULATORY SETTING

FEDERAL

Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA) is intended to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses. It ensures that, to the extent practicable, federal programs are compatible with state and local units of government as well as private programs and policies to protect farmland. Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to non-agricultural use and are completed by a federal agency or with assistance from a federal agency. For the purpose of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for crop production. In fact, the land can be forest land, pastureland, cropland, or other land, but does not include water bodies or land developed for urban land uses (i.e., residential, commercial, or industrial uses).

The NRCS administers the Farmland Protection Program. NRCS uses a land evaluation and site assessment (LESA) system to establish a farmland conversion impact rating score on proposed sites of federally funded and assisted projects. This score is used as an indicator for the project sponsor to consider alternative sites if the potential adverse impacts on the farmland exceed the recommended allowable level. The assessment is completed on form AD-1006, Farmland Conversion Impact Rating. The sponsoring agency completes the site assessment portion of the AD-1006, which assesses non-soil related criteria such as the potential for impact on the local agricultural economy if the land is converted to non-farm use and compatibility with existing agricultural use.

The Project site and adjacent parcels will not be developed by a federal agency, or with assistance from a federal agency. Therefore, the Project will not be subject to the FPPA.

STATE

Farmland Security Zones

In 1998 the state legislature established the Farmland Security Zone (FSZ) program. FSZs are similar to Williamson Act contracts, in that the intention is to protect farmland from conversion. The main difference however, is that the FSZ must be designated as Prime Farmland, Farmland of Statewide

Importance, Unique Farmland, or Farmland of Local Importance. The term of the contract is a minimum of 20 years. The property owners are offered an incentive of greater property tax reductions when compared to the Williamson Act contract tax incentives; the incentives were developed to encourage conservation of prime farmland through FSZs. The non-renewal and cancellation procedures are similar to those for Williamson Act contracts.

The Project site and the adjacent parcels are not within the FSZ program.

LOCAL

Envision Stockton 2040 General Plan

The Envision Stockton 2040 General Plan Land Use Map designates the Project site as Industrial, Commercial, and Open Space/Agriculture.

The Envision Stockton 2040 General Plan includes several policies and actions that are relevant to agricultural resources. General Plan policies applicable to the Project are identified below:

POLICIES: LAND USE ELEMENT

- LU-5.2. Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development.
- LU-5.3. Define discrete and clear city edges that preserve agriculture, open space, and scenic views.

ACTIONS: LAND USE ELEMENT

- LU-5.3A. At the interface between development and rural landscapes, use landscaping and other attractive edging instead of sound walls and similar utilitarian edges of developments to maintain the visual integrity of open space.
- LU-5.3B. Coordinate with San Joaquin County and property owners in unincorporated areas to preserve agricultural land and open space areas in the unincorporated county that contribute to maintaining clear boundaries between cities.
- LU-5.3C. Maintain the City's agricultural conservation program that requires either dedication of an agricultural conservation easement at a 1:1 ratio or payment of an in-lieu agricultural mitigation fee for the conversion of prime farmland, farmland of statewide importance, or unique farmland, as defined by the State Farmland Monitoring and Mapping Program.

City of Stockton Right-to-Farm Ordinance

Chapter 16.36 of the Stockton Municipal Code, General Development and Use Standards, establishes the City's "Right-to-Farm" ordinance, which is intended to protect agricultural uses in and around the City. Specifically, Section 16.36.040 of the ordinance establishes the City's policy to preserve the City and County's agricultural operations while minimizing conflicts to new urban

development. The City's "Right-to-Farm" ordinance serves to protect farmers from nuisance complaints. The ordinance requires owners and builders to notify their successors-in-interest of the potential conflicts and effects of agricultural activities, and the ordinance specifies that typical agricultural practices shall not be considered a nuisance.

Stockton Family Farmers' Sponsored Greenbelt and Agricultural Lands Protection Initiative

Issues regarding conversion of agricultural lands to urban uses, and potential mitigation measures for agricultural land conversion, is the subject of increasing dialogue in San Joaquin County. "The Stockton Family Farmers' Sponsored Greenbelt and Agricultural Lands Protection Initiative" was proposed in March 2004 and passed by the voters of Stockton in January 2005. This initiative is intended to protect farming operations and agricultural lands, to promote establishment of a greenbelt between Stockton and Lodi, and to facilitate the preservation of open space.

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)

The SJMSCP provides comprehensive measures for compensation and avoidance of impacts to various biological resources, which includes ancillary benefits to agricultural resources. For instance, many of the habitat easements that are purchased or facilitated by the SJMSCP program are targeted for the protection of Swainson's hawk or other sensitive species habitat that are dependent on agricultural lands. The biological mitigation for these species through the SJMSCP includes the purchase of certain conservation easements for habitat purposes. The conservation easements are placed over agricultural land, such as alfalfa and row crops (not vines or orchards). As such, SJMSCP fees paid to SJCOG as administrator of the SJMSCP will result in the preservation of agricultural lands in perpetuity.

Mitigation of agricultural land conversion losses has been provided through the county-wide adoption of the SJMSCP and its local adoption by the City of Stockton. The SJMSCP requires the payment of a per-acre fee for loss of wildlife habitat, which in San Joaquin County is largely integral with agricultural use. One important use of the fees is the acquisition of conservation easements over agricultural land that are intended to preserve the agricultural use of these lands in order to maintain their biological habitat values.

Areas located within SJMSCP "No Pay Zones" are exempt from the agricultural land mitigation fee program. Lands in the No Pay Zones are lands that are largely developed. The vast majority of the Project site is designated as Category C/Pay Zone B. This zone consists of "Agricultural Habitat Lands", as described in Chapter 2.2 of the SJMSCP. Portions of the Project site located along French Camp Slough are designated as Category A/No Pay Zone. This zone consists of "Urban Lands", as described in Chapter 2.2 of the SJMSCP.

Stockton Agricultural Land Mitigation Program

The City of Stockton adopted the Agricultural Land Mitigation Program in 2007. The Program applies to projects that would convert agricultural lands, as defined by the most-recent Important Farmland

3.2 AGRICULTURAL RESOURCES

Maps published by the California Department of Conservation. Projects may provide “agricultural mitigation land” on a 1:1 basis for each acre of land converted, including administrative costs of approximately \$1,000 per acre, or pay the established Agricultural Land Mitigation Fee of \$12,822 (San Joaquin Council of Governments [SJCOG] San Joaquin County Multi-Species Habitat Conservation and Open Space Plan [SJMSCP] Habitat Fees, 2020) per acre.

The Agricultural Land Mitigation Program provides that agricultural mitigation lands will be dedicated to a qualifying management entity such as the Central Valley Farmland Trust. The fees would be collected by the City, held in a dedicated account, and then expended by the City to acquire agricultural mitigation land or pay for the monitoring and administrative costs of the program. The fees may also be transferred to a qualifying entity for the same purpose.

3.2.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on agricultural resources if it will:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Important Farmlands), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

IMPACTS AND MITIGATION MEASURES

Impact 3.2-1: The proposed Project would result in the conversion of Farmlands, including Prime Farmland and Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses (Significant and Unavoidable)

Development of the proposed Project would result in the permanent conversion of 158.6 acres of Prime Farmland, 259.3 acres of Farmland of Statewide Importance, and 4.3 acres of Unique Farmland, as shown on Figure 3.2-1, to non-agricultural use. The loss of Important Farmland as classified under the FMMP is considered a potentially significant environmental impact.

The City’s Agricultural Land Mitigation Program requires that projects provide “agricultural mitigation land” on a 1:1 basis for each acre of land converted, including administrative costs of approximately \$1,000 per acre, or pay the established Agricultural Land Mitigation Fee of \$12,822 (SJCOG-SJMSCP Habitat Fees, 2020) per acre. The Project would pay the established Agricultural Land Mitigation Fee of \$12,822 per acre, as required by Mitigation Measure 3.2-1. SJCOG would then use these funds to purchase conservation easements on agricultural and habitat lands that are placed over agricultural land, such as alfalfa and row crops in the Project vicinity. As such, the Project

fees paid to SJCOG as administrator of the SJMSCP would result in the preservation of agricultural lands in perpetuity. The purchase of conservation easements and/or deed restrictions through the City's Agricultural Land Mitigation Program and the SJMSCP allows the agricultural landowner to retain ownership of the land and continue agricultural operations, and preserves such lands in perpetuity.

The Envision Stockton 2040 General Plan EIR anticipated development of the Project site as part of the overall evaluation of the buildout of the City. The General Plan EIR addressed the conversion and loss of Important Farmland that would result from the build out of the General Plan (General Plan Draft EIR, pp. 4.2-10 through 4.2-12). The General Plan EIR determined that impacts would be significant and unavoidable. According to the General Plan EIR, although the General Plan includes policies and actions that would reduce and partially offset the conversion of farmland, it designates approximately 16,160 acres of farmlands of concern under CEQA for non-agricultural uses. Because these farmland areas are located near existing urbanized areas, they may not be viable for agricultural operations due to conflicts with nearby urbanized areas. The only way to mitigate this impact would be to prohibit any development on farmland of concern. CEQA does not require that the project be changed in order to avoid an impact, and no additional mitigation is available, resulting in a significant and unavoidable impact.

While the proposed Project will contribute fees toward the purchase of conservation easements on agricultural lands through the SJMSCP (as required by Mitigation Measure 3.2-1), those fees and conservation easements would not result in the creation of new farmland to offset the loss that would occur with Project implementation. Implementation of the Project would result in a net loss of farmland, even with implementation of mitigation. As such, consistent with the conclusion of the General Plan EIR, the loss of Important Farmland would be a **significant and unavoidable** impact relative to this topic.

MITIGATION MEASURE(S)

Mitigation Measure 3.2-1: *Prior to the conversion of Important Farmland on the Project site, the Project applicant shall participate in the City's Agricultural Lands Mitigation Program, under which developers of the property shall contribute agricultural mitigation land or shall pay the Agricultural Land Mitigation Fee to the City. Participates in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) that results in agricultural land mitigation may also be considered as the functional equivalent of mitigation for the loss of Important Farmland.*

Impact 3.2-2: The proposed Project may involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use (Less than Significant)

Intensive agricultural operations adjacent or close to urban development can result in use conflicts. These conflicts can result from agricultural practices that generate complaints and result in limits on these practices, such as dust generated during cultivation, burning, noise during shaking operations (nut trees), and pesticide applications. Additionally, conflicts may result from substantial increases

3.2 AGRICULTURAL RESOURCES

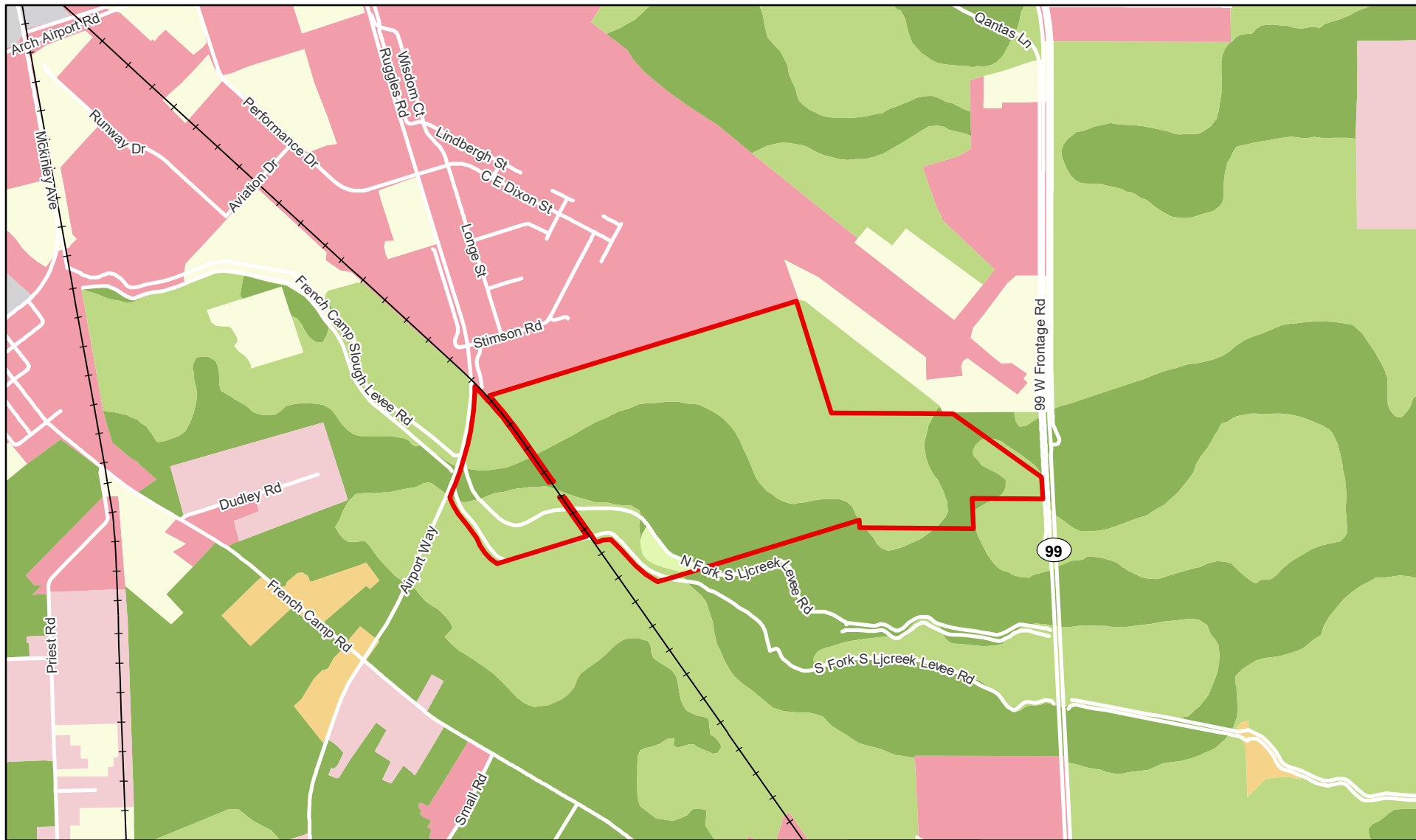
in unauthorized use of an agricultural area as the population of the area increases. This can result in the potential for increased trespass, littering and/or vandalism of agricultural properties. Both of these potential conflicts are predominantly associated with the juxtaposition of agricultural and residential areas.

Potential urban/agricultural use conflicts between proposed urban and nearby agricultural uses are expected to be minimal. Neighboring agricultural lands, including Prime Farmland and Farmland of Statewide Importance, are located adjacent to the northern, eastern, southern, and western boundaries of the Project site, as shown on Figure 3.2-1. A variety of industrial and commercial uses would be developed on the Project site and sewer improvements would be constructed off-site along Airport Way to Industrial Drive to the north.

The City's General Plan anticipates that agricultural lands to the north, south, east, and west of the Project site would develop with urban uses. Agricultural lands that are located adjacent the Project site to the north (the triangle area adjacent south of the Airport runway), east (both east and west of SR 99, west of Airport Way, and to the south may be impacted by the increased human presence on the Project site. Additionally, the existing agricultural uses to the west are separated from the Project site by Airport Way and/or agricultural roadways and ditches. Airport Way is an arterial roadway and would act as an effective divider and buffer between urban and agricultural uses, limiting access for new urban population in the area. Additionally, as part of the Project, approximately 54 acres of open space uses would be provided along French Camp Slough. This open space corridor would also act as an effective divider and buffer between urban and agricultural uses.

Both Stockton and San Joaquin County have "Right-to-Farm" ordinances which prevent an existing agricultural operation using standard farming practices from being considered a nuisance by later adjoining uses. This protects farmers from attempts by residents to curtail agricultural activities. The Stockton ordinance, which would apply to the site, also requires owners and builders to notify their successors-in-interest of the potential conflicts and effects of agricultural activities, and the ordinance specifies that typical agricultural practices shall not be considered a nuisance. Implementation of the Right-to-Farm ordinance would ensure potential residential/agricultural incompatibilities would be less than significant.

The General Plan EIR identifies that implementation of the General Plan could result in the conversion of farmland to non-agricultural use and identified General Plan Policies LU-5.2 and LU-5.3, and Actions LU-5.3B, 5.3C, and 6.2B. The General Plan EIR determined that the impact would be less than significant through implementation of these policies and actions, and through compliance with the City's "Right-to-Farm" ordinance (General Plan Draft EIR, p. 4.2-15). Therefore, implementation of the proposed Project would result in a ***less than significant*** impact related to conflicts with adjacent agricultural lands.



LEGEND

Project Boundary

Farmland Classification (Acres Onsite)

Prime Farmland (158.6 ac)

Farmland of Statewide Importance (259.3 ac)

Unique Farmland (4.3 ac)

Farmland of Local Importance

Vacant or Disturbed Land

Rural Residential Land

Semi-agricultural and Rural Commercial Land

Urban and Built-Up Land



0 500 1,000
Feet

SOUTH STOCKTON COMMERCE CENTER

Figure 3.2-1. Farmlands Map

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm



Source: San Joaquin County GIS; Farmland Mapping and Monitoring Program, San Joaquin 2016. Map date: September 22, 2020. Revised: December 29, 2020; February 8, 2021.

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This section describes the regional air quality, current attainment status of the air basin, local sensitive receptors, emissions sources, and impacts that are likely to result from Project implementation. The analysis contained in this section is intended to be at a project-level, and covers impacts associated with the conversion of the entire site to urban uses. Following this discussion is an assessment of consistency of the proposed Project with applicable policies and local plans. The Greenhouse Gases and Climate Change analysis is in a separate section of this document.

This section is based in part on the following technical studies: *Air Quality and Land Use Handbook: A Community Health Perspective* (California Air Resources Board [CARB], 2005), *Guide for Assessing and Mitigation Air Quality Impacts* (San Joaquin Valley Air Pollution Control District [SJAVPCD], 2002), *Guidance for Assessing and Mitigating Air Quality Impacts - 2015* (SJAVPCD, 2015), and CalEEMod (v.2022.1) (CARB, 2024). There was one (1) NOP comment provided by the San Joaquin Valley Air Pollution Control District (SJVAPCD). The commenter pointed out that the SJVAPCD has the *Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI)* (March 19, 2015) as a technical guidance for the review of air quality impacts from proposed projects within the boundaries of the District.

Four (4) comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the Sierra Club (October 27, 2020), State of California Department of Justice (November 24, 2021), California Air Resources Board (November 17, 2020), and the San Joaquin Valley Air Pollution Control District (October 30, 2020). Each of the comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

3.3.1 ENVIRONMENTAL SETTING

SAN JOAQUIN VALLEY AIR BASIN

The City of Stockton (City) is in the southern portion of the San Joaquin Air Basin (SJVAB). The SJVAB consists of eight counties: Fresno, Kern (western and central), Kings, Tulare, Madera, Merced, San Joaquin, and Stanislaus. Air pollution from significant activities in the SJVAB includes a variety of industrial-based sources as well as on- and off-road mobile sources. These sources, coupled with geographical and meteorological conditions unique to the area, stimulate the formation of unhealthy air.

The SJVAB is approximately 250 miles long and an average of 35 miles wide. It is bordered by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. There is a slight downward elevation gradient from Bakersfield in the southeast end (elevation 408 feet) to sea level at the northwest end where the valley opens to the San Francisco Bay at the Carquinez Straits. At its northern end is the Sacramento Valley, which comprises the northern half of California's Central Valley. The bowl-shaped topography inhibits movement of pollutants out of the valley (San Joaquin Valley Air Pollution Control District (SJVAPCD), 2015).

Climate

The SJVAB is in a Mediterranean climate zone and is influenced by a subtropical high-pressure cell most of the year. Mediterranean climates are characterized by sparse rainfall, which occurs mainly in winter. Summers are hot and dry. Summertime maximum temperatures often exceed 100°F in the valley.

The subtropical high-pressure cell is strongest during spring, summer, and fall and produces subsiding air, which can result in temperature inversions in the valley. A temperature inversion can act like a lid, inhibiting vertical mixing of the air mass at the surface. Any emissions of pollutants can be trapped below the inversion. Most of the surrounding mountains are above the normal height of summer inversions (1,500 to 3,000 feet).

Winter-time high pressure events can often last many weeks, with surface temperatures often lowering into the 30°F. During these events, fog can be present and inversions are extremely strong. These wintertime inversions can inhibit vertical mixing of pollutants to a few hundred feet (SJVAPCD, 2015).

Wind Patterns

Wind speed and direction play an important role in dispersion and transport of air pollutants. Wind at the surface and aloft can disperse pollution by mixing and transporting it to other locations.

Especially in summer, winds in the San Joaquin Valley most frequently blow from the northwest. The region's topographic features restrict air movement and channel the air mass towards the southeastern end of the valley. Marine air can flow into the basin from the San Joaquin River Delta and over Altamont Pass and Pacheco Pass, where it can flow along the axis of the valley, over the Tehachapi pass, into the Southeast Desert Air Basin. This wind pattern contributes to transporting pollutants from the Sacramento Valley and the Bay Area into the SJVAB. Approximately 27 percent of the total emissions in the northern portion, 11 percent of total emissions in the central region, and 7 percent of total emission in the south valley of the SJVAB are attributed to air pollution transported from these two areas.¹ The Coastal Range is a barrier to air movement to the west and the high Sierra Nevada range is a significant barrier to the east (the highest peaks in the southern Sierra Nevada reach almost halfway through the Earth's atmosphere). Many days in the winter are marked by stagnation events where winds are very weak. Transport of pollutants during winter can be very limited. A secondary but significant summer wind pattern is from the southeast and can be associated with nighttime drainage winds, prefrontal conditions, and summer monsoons.

Two significant diurnal wind cycles that occur frequently in the valley are the sea breeze and mountain-valley upslope and drainage flows. The sea breeze can accentuate the northwest wind flow, especially on summer afternoons. Nighttime drainage flows can accentuate the southeast movement of air down the valley. In the mountains during periods of weak synoptic scale winds,

¹ SJVAPCD. Frequently Asked Questions, http://www.valleyair.org/general_info/frequently_asked_questions.htm#What%20is%20being%20done%20to%20improve%20air%20quality%20in%20the%20San%20Joaquin%20Valley, accessed March 6, 2024.

winds tend to be upslope during the day and downslope at night. Nighttime and drainage flows are especially pronounced during the winter when flow from the easterly direction is enhanced by nighttime cooling in the Sierra Nevada. Eddies can form in the valley wind flow and can recirculate a polluted air mass for an extended period.

Temperature

Solar radiation and temperature are particularly important in the chemistry of ozone formation. The SJVAB averages over 260 sunny days per year. Photochemical air pollution (primarily ozone) is produced by the atmospheric reaction of organic substances (such as volatile organic compounds) and nitrogen dioxide under the influence of sunlight. Ozone concentrations are very dependent on the amount of solar radiation, especially during late spring, summer, and early fall. Ozone levels typically peak in the afternoon. After the sun goes down, the chemical reaction between nitrous oxide and ozone begins to dominate. This reaction tends to scavenge and remove the ozone in the metropolitan areas through the early morning hours, resulting in the lowest ozone levels, possibly reaching zero at sunrise in areas with high nitrogen oxides emissions. At sunrise, nitrogen oxides tend to peak, partly due to low levels of ozone at this time and also due to the morning commuter vehicle emissions of nitrogen oxides.

Generally, the higher the temperature, the more ozone formed, since reaction rates increase with temperature. However, extremely hot temperatures can “lift” or “break” the inversion layer. Typically, if the inversion layer does not lift to allow the buildup of contaminants to be dispersed, the ozone levels will peak in the late afternoon. If the inversion layer breaks and the resultant afternoon winds occur, the ozone will peak in the early afternoon and decrease in the late afternoon as the contaminants are dispersed or transported out of the SJVAB.

Ozone levels are low during winter periods when there is much less sunlight to drive the photochemical reaction (SJVAPCD, 2015).

Precipitation, Humidity, and Fog

Precipitation and fog may reduce or limit some pollutant concentrations. Ozone needs sunlight for its formation, and clouds and fog can block the required solar radiation. Wet fogs can cleanse the air during winter as moisture collects on particles and deposits them on the ground. Atmospheric moisture can also increase pollution levels. In fogs with less water content, the moisture acts to form secondary ammonium nitrate particulate matter. This ammonium nitrate is part of the valley’s PM_{2.5} and PM₁₀ problem. The winds and unstable air conditions experienced during the passage of winter storms result in periods of low pollutant concentrations and excellent visibility. Between winter storms, high pressure and light winds allow cold moist air to pool on the SJVAB floor. This creates strong low-level temperature inversions and very stable air conditions, which can lead to tule fog. Wintertime conditions favorable to fog formation are also conditions favorable to high concentrations of PM_{2.5} and PM₁₀ (SJVAPCD, 2015).

Inversions

The vertical dispersion of air pollutants in the San Joaquin Valley can be limited by persistent temperature inversions. Air temperature in the lowest layer of the atmosphere typically decreases with altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. The height of the base of the inversion is known as the “mixing height.” This is the level to which pollutants can mix vertically. Mixing of air is minimized above and below the inversion base. The inversion base represents an abrupt density change where little air movement occurs.

Inversion layers are significant in determining pollutant concentrations. Concentration levels can be related to the amount of mixing space below the inversion. Temperature inversions that occur on the summer days are usually 2,000 to 2,500 feet above the valley floor. In winter months, overnight inversions occur 500 to 1,500 feet above the valley floor (SJVAPCD, 2015).

CRITERIA POLLUTANTS

All criteria pollutants can have human health and environmental effects at certain concentrations. The United States Environmental Protection Agency (U.S. EPA) uses six "criteria pollutants" as indicators of air quality and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called National Ambient Air Quality Standards (NAAQS). In addition, California establishes ambient air quality standards, called California Ambient Air Quality Standards (CAAQS). California law does not require that the CAAQS be met by a specified date as is the case with NAAQS.

The ambient air quality standards for the six criteria pollutants (as shown in Table 3.3-1) are set to public health and the environment within an adequate margin of safety (as provided under Section 109 of the Federal Clean Air Act). Epidemiological, controlled human exposure, and toxicology studies evaluate potential health and environmental effects of criteria pollutants, and form the scientific basis for new and revised ambient air quality standards. Principal characteristics and possible health and environmental effects from exposure to the six (6) primary criteria pollutants generated by the Project are discussed below.

Ozone (O₃) is a photochemical oxidant and the major component of smog. While O₃ in the upper atmosphere is beneficial to life by shielding the earth from harmful ultraviolet radiation from the sun, high concentrations of O₃ at ground level are a major health and environmental concern. O₃ is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) in the presence of sunlight. These reactions are stimulated by sunlight and temperature so that peak O₃ levels occur typically during the warmer times of the year. Both VOCs and NO_x are emitted by transportation and industrial sources. VOCs are emitted from sources as diverse as autos, chemical manufacturing, dry cleaners, paint shops and other sources using solvents.

The reactivity of O₃ causes health problems because it damages lung tissue, reduces lung function, and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O₃ not only affect people with impaired respiratory systems, such as asthmatics, but affect healthy adults

and children as well. Prolonged direct or intensive exposure to O₃ for several hours at relatively low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Studies show associations between short-term ozone exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths (U.S. EPA, 2019a). The concentration of ozone at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggests that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 parts per billion (U.S. EPA, 2019b). The average background level of ozone in California and Nevada is approximately 48.3 parts per billion, which represents approximately 77 percent of the total ozone in the western region of the U.S. (NASA, 2015).

In addition to human health effect, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. O₃ can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

Carbon monoxide (CO) is a colorless, odorless, and poisonous gas produced by incomplete burning of carbon in fuels. Carbon monoxide is harmful because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, acute CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Although rare, unborn babies whose mothers experience very high levels (i.e. chronic exposure to approximately 400 ppm or more) of CO exposure during pregnancy are at risk of adverse developmental effects.² Exposure to CO at very high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain. There are no ecological or environmental effects to ambient CO (CARB, 2024c).

Very high levels of CO are extremely unlikely to occur outdoors. However, when CO levels are sufficiently elevated outdoors (such as 400 to 1000 ppm), they can be of particular concern for

² Venditti, C.C., Casselman, R. & Smith, G.N. Effects of chronic carbon monoxide exposure on fetal growth and development in mice. *BMC Pregnancy Childbirth* **11**, 101 (2011). Available: <https://doi.org/10.1186/1471-2393-11-101>

people with some types of heart disease.³ These people already have a reduced ability for getting oxygenated blood to their hearts in situations where the heart needs more oxygen than usual. They are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (U.S. EPA, 2024d). Such acute effects may occur under current ambient conditions for some sensitive individuals, while increases in ambient CO levels increases the risk of such incidences.

Nitrogen Dioxide (NO₂) is a brownish, highly reactive gas that is present in all urban atmospheres. The main effect of increased NO₂ is the increased likelihood of respiratory problems. Under ambient conditions, NO₂ can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Nitrogen oxides are an important precursor both to ozone (O₃) and acid rain and may affect both terrestrial and aquatic ecosystems. Longer exposures to elevated concentrations of NO₂ (i.e. concentrations as low as 0-20 µg/m³) may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. For example, one study found that, for each 10 µg/m³ increase in NO₂ exposure, we observed an 8% increase in asthma-related emergency admissions.⁴ People with asthma, as well as children and the elderly, are generally at greater risk for the health effects of NO₂.

Sulfur dioxide (SO₂) is one of the multiple gaseous oxidized sulfur species and is formed during the combustion of fuels containing sulfur, primarily coal and oil. The largest anthropogenic source of SO₂ emissions in the U.S. is fossil fuel combustion at electric utilities and other industrial facilities. SO₂ is also emitted from certain manufacturing processes and mobile sources, including locomotives, large ships, and construction equipment.

SO₂ affects breathing and may aggravate existing respiratory and cardiovascular disease in high doses. Sensitive populations include asthmatics, individuals with bronchitis or emphysema, children, and the elderly. SO₂ is also a primary contributor to acid deposition, or acid rain, which causes acidification of lakes and streams and can damage trees, crops, historic buildings, and statues. In addition, sulfur compounds in the air contribute to visibility impairment in large parts of the country. This is especially noticeable in national parks. Ambient SO₂ results largely from stationary sources such as coal and oil combustion, steel mills, refineries, pulp, and paper mills and from nonferrous smelters.

Short-term exposure to high levels of ambient SO₂ has been associated with various adverse health effects. Multiple human clinical studies, epidemiological studies, and toxicological studies support a causal relationship between short-term exposure to ambient SO₂ and respiratory morbidity. The

³ U.S. EPA. 2023. Grantee Research Project Results. Carbon Monoxide and Atherosclerosis. Available: https://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract_id/2320

⁴ Wang W, Gulliver J, Beevers S, Freni Sterrantino A, Davies B, Atkinson RW, Fecht D. Short-Term Nitrogen Dioxide Exposure and Emergency Hospital Admissions for Asthma in Children: A Case-Crossover Analysis in England. *J Asthma Allergy*. 2024 Apr 9;17:349-359. doi: 10.2147/JAA.S448600. PMID: 38623450; PMCID: PMC11016460.

observed health effects include decreased lung function, respiratory symptoms, and increased emergency department visits and hospitalizations for all respiratory causes. These studies further suggest that people with asthma are potentially susceptible or vulnerable to these health effects. In addition, SO₂ reacts with other air pollutants to form sulfate particles, which are constituents of fine particulate matter (PM_{2.5}). Inhalation exposure to PM_{2.5} has been associated with various cardiovascular and respiratory health effects (U.S. EPA, 2017). Increased ambient SO₂ levels would lead to increased risk of such effects.

SO₂ emissions that lead to high concentrations of SO₂ in the air generally also lead to the formation of other sulfur oxides (SO_x). SO_x can react with other compounds in the atmosphere to form small particles. These particles contribute to particulate matter (PM) pollution. Small particles may penetrate deeply into the lungs and in sufficient quantity can contribute to health problems.

Particulate matter (PM) includes dust, dirt, soot, smoke, and liquid droplets directly emitted into the air by sources such as factories, power plants, cars, construction activity, fires, and natural windblown dust. Particles formed in the atmosphere by condensation or the transformation of emitted gases such as SO₂ and VOCs are also considered particulate matter. PM is generally categorized based on the diameter of the particulate matter: PM₁₀ is particulate matter 10 micrometers or less in diameter (known as respirable particulate matter), and PM_{2.5} is particulate matter 2.5 micrometers or less in diameter (known as fine particulate matter).

Based on studies of human populations exposed to high concentrations of particles (sometimes in the presence of SO₂) and laboratory studies of animals and humans, there are major effects of concern for human health. These include effects on breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular disease, alterations in the body's defense systems against foreign materials, damage to lung tissue, carcinogenesis, and premature death. Small particulate pollution causes health impacts even at very low concentrations – indeed, no threshold has been identified below which no damage to health is observed.

Respirable particulate matter (PM₁₀) consists of small particles, less than 10 microns in diameter, of dust, smoke, or droplets of liquid which penetrate the human respiratory system and cause irritation by themselves, or in combination with other gases. PM₁₀ is caused primarily by dust from grading and excavation activities, from agricultural activities (as created by soil preparation activities, fertilizer, and pesticide spraying, weed burning and animal husbandry), and from motor vehicles, particularly diesel-powered vehicles. PM₁₀ causes a greater health risk than larger particles, since these fine particles can more easily penetrate the defenses of the human respiratory system.

PM_{2.5} consists of fine particles that are less than 2.5 microns in size. Similar to PM₁₀, these particles are primarily the result of combustion in motor vehicles, particularly diesel engines, as well as from industrial sources and residential/agricultural activities such as burning. It is also formed through the reaction of other pollutants. As with PM₁₀, these particulates can increase the chance of respiratory disease, and cause lung damage and cancer. In 1997, the U.S. EPA created new Federal air quality standards for PM_{2.5}.

Although neither the U.S. EPA nor the California air districts have provided any thresholds for ultrafine particles (UFPs) (defined as fine particles of less than 0.1 microns in size, or $PM_{0.1}$), it should be noted that such particles may have the potential for even greater health effects than PM_{10} or $PM_{2.5}$, due to their even smaller sizes. UFPs are primarily generated by motor vehicle emissions (especially from diesel engines), braking, and tire wear. Specifically, UFPs are comprised mostly of metals that are known constituents of brake pads and drums, as well as additives in motor oil. Generally, all engines can create UFPs, but especially diesel engines, and any vehicle's braking system; traffic, particularly start-and-stop, generates UFPs.⁵ Recent research suggests that UFPs pose considerable health risks, similar to but tending to be more severe than PM_{10} and $PM_{2.5}$, such as increased risk of cardiovascular disease and ischemic heart disease death rates, and loss of lung function.⁶ Furthermore, unlike diesel exhaust or other larger TAC emissions, UFPs are more persistent and do not dissipate easily over distances.⁷

The major subgroups of the population that appear to be most sensitive to the effects of particulate matter include individuals with chronic obstructive pulmonary or cardiovascular disease or influenza, asthmatics, the elderly, and children. PM also impacts soils and damages materials and is a major cause of visibility impairment.

Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Studies show that every 1 microgram per cubic meter reduction in $PM_{2.5}$ results in a one percent reduction in mortality rate for individuals over 30 years old (Bay Area Air Quality Management District, 2017). Long-term exposures, such as those experienced by people living for many years in areas with high PM levels, have been associated with problems such as reduced lung function and the development of chronic bronchitis – and even premature death. Additionally, depending on its composition, both PM_{10} and $PM_{2.5}$ can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (U.S. EPA, 2019c).

Lead (Pb) exposure can occur through multiple pathways, including inhalation of air and ingestion of Pb in food, water, soil, or dust. Once taken into the body, lead distributes throughout the body in the blood and is accumulated in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental

⁵ Aerosol Science and Technology. 2011. Thomas A. Cahill, David E. Barnes, Nicholas J. Spada, Jonathan A. Lawton, and Thomas M. Cahill. Very Fine and Ultrafine Metals and Ischemic Heart Disease in the California Central Valley 1: 2003-2007. July 13, 2011.

⁶ Atmospheric Environment. 2016. Thomas A. Cahill, David E. Barnes, Leann Wuest, David Gribble, David Buscho, Roger S. Miller, Camille De la Croix. Artificial Ultra-fine Aerosol Tracers for Highway Transect Studies. April 7, 2016;

Aerosol Science and Technology. 2011. Thomas A. Cahil, David E. Barnes, Earl Withycombe, & Mitchell Watnik, and DELTA Group. Very Fine and Ultrafine Metals and Ischemic Heart Disease in the California Central Valley 1: 1974-1991. July 13, 2011.

⁷ Atmospheric Environment. 2016. Transition Metals in Coarse, Fine, Very Fine and Ultra-fine Particles from an Interstate Highway Transect Near Detroit. September 12, 2016.

systems, and the cardiovascular system. Lead exposure also affects the oxygen carrying capacity of the blood. Excessive Pb exposure can cause seizures, mental retardation and/or behavioral disorders. Low doses of Pb can lead to central nervous system damage. Studies have also shown that Pb may be a factor in high blood pressure and subsequent heart disease (Tsoi, M.F., 2021).

Lead is persistent in the environment and can be added to soils and sediments through deposition from sources of lead air pollution. Other sources of lead to ecosystems include direct discharge of waste streams to water bodies and mining. Elevated lead in the environment can result in decreased growth and reproductive rates in plants and animals, and neurological effects in vertebrates.

Lead exposure is typically associated with industrial sources; major sources of lead in the air are ore and metals processing and piston-engine aircraft operating on leaded aviation fuel. Other sources are waste incinerators, utilities, and lead-acid battery manufacturers. The highest air concentrations of lead are usually found near lead smelters. As a result of the U.S. EPA's regulatory efforts, including the removal of lead from motor vehicle gasoline, levels of lead in the air decreased by 98 percent between 1980 and 2014 (U.S. EPA, 2019d). Based on this reduction of lead in the air over this period, and since most new developments do not generate an increase in lead exposure, the health impacts of ambient lead levels are not typically monitored by the California Air Resources Board (CARB).

AMBIENT AIR QUALITY STANDARDS

Both the U.S. EPA and the CARB have established ambient air quality standards for common pollutants. These ambient air quality standards represent safe levels of contaminants that avoid specific adverse health effects associated with each pollutant.

The federal and State ambient air quality standards are summarized in Table 3.3-1 for important pollutants. The federal and State ambient standards were developed independently, although both processes attempted to avoid health-related effects. As a result, the federal and State standards differ in some cases. In general, the California standards are more stringent. This is particularly true for ozone, PM_{2.5}, and PM₁₀. The U.S. EPA signed a final rule for the federal ozone eight-hour standard of 0.070 ppm on October 1, 2015, and was effective as of December 28, 2015 (equivalent to the California state ambient air quality eight-hour standard for ozone).

3.3 AIR QUALITY

TABLE 3.3-1: FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

POLLUTANT	AVERAGING TIME	FEDERAL PRIMARY STANDARD	STATE STANDARD
Ozone	1-Hour	--	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.03 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	0.03 ppm	--
	24-Hour	0.14 ppm	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM ₁₀	Annual	--	20 ug/m ³
	24-Hour	150 ug/m ³	50 ug/m ³
PM _{2.5}	Annual	12 ug/m ³	12 ug/m ³
	24-Hour	35 ug/m ³	--
Lead	30-Day Avg.	--	1.5 ug/m ³
	3-Month Avg.	0.15 ug/m ³	--

NOTES: PPM = PARTS PER MILLION, UG/M³ = MICROGRAMS PER CUBIC METER

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2024A.

In 1997, new national standards for fine particulate matter diameter 2.5 microns or less (PM_{2.5}) were adopted for 24-hour and annual averaging periods. The existing PM₁₀ standards were retained, but the method and form for determining compliance with the standards were revised.

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated based on risk rather than specification of safe levels of contamination.

Attainment Status

In accordance with the California Clean Air Act (CCAA), the CARB is required to designate areas of the State as attainment, nonattainment, or unclassified with respect to applicable standards. An “attainment” designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A “nonattainment” designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria.

Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An “unclassified” designation signifies that the data do not support either an attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The U.S. EPA designates areas for ozone, carbon monoxide, and nitrogen dioxide as “does not meet the primary standards,” “cannot be classified,” or “better than national standards.” For sulfur dioxide, areas are designated as “does not meet the primary standards,” “does not meet the secondary standards,” “cannot be classified,” or “better than national standards.” However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used.

San Joaquin County has a State designation Attainment or Unclassified for all criteria pollutants except for ozone, PM₁₀ and PM_{2.5}. San Joaquin County has a national designation of either Unclassified or Attainment for all criteria pollutants except for Ozone and PM_{2.5}. Thus, ozone and PM_{2.5} are among the most prevalent pollutants in San Joaquin County. Table 3.3-2 presents the state and nation attainment status for San Joaquin County.

TABLE 3.3-2: STATE AND NATIONAL ATTAINMENT STATUS IN SAN JOAQUIN COUNTY

<i>CRITERIA POLLUTANTS</i>	<i>STATE DESIGNATIONS</i>	<i>NATIONAL DESIGNATIONS</i>
Ozone (O ₃)	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Attainment
PM _{2.5}	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Unclassified/Attainment
Nitrogen Dioxide (NO ₂)	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO ₂)	Attainment	Unclassified/Attainment
Sulfates	Attainment	
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Unclassified	
Visibility Reducing Particles	Unclassified	

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2023.

San Joaquin County Air Quality Monitoring

The San Joaquin Valley Air Pollution District (SJVAPCD) and the CARB maintain air quality monitoring sites throughout San Joaquin County that collect data for ozone and PM_{2.5}. In addition, air quality monitoring sites for PM₁₀ are located throughout the San Joaquin Valley (though not in San Joaquin County). It is important to note that while the State retains the one-hour standard, the federal ozone 1-hour standard was revoked by the U.S. EPA and is no longer applicable for federal standards. Best available data obtained from the monitoring sites between 2017 and 2022 (latest year of data available) is shown in Table 3.3-3, Table 3.3-4, and Table 3.3-5.

3.3 AIR QUALITY

TABLE 3.3-3 AMBIENT AIR QUALITY MONITORING DATA SUMMARY (SAN JOAQUIN COUNTY) - OZONE

YEAR	DAYS > STANDARD				1-HOUR OBSERVATIONS			8-HOUR AVERAGES				YEAR COVERAGE	
	STATE		NATIONAL			STATE	NAT'L	STATE		NATIONAL			
	1-Hr	8-Hr	1-Hr	8-Hr	MAX.	D.V. ¹	D.V. ²	MAX.	D.V. ¹	MAX.	D.V. ²	MIN	MAX
2022	1	1	0	1	0.141	0.14	0.091	0.114	0.114	0.113	0.066	96	97
2021	0	3	0	3	0.089	0.10	0.093	0.078	0.077	0.077	0.068	0	98
2020	1	4	0	4	0.100	0.09	0.092	0.078	0.082	0.078	0.070	96	99
2019	2	4	0	4	0.098	0.09	0.092	0.080	0.0823	0.079	0.073	91	99
2018	1	8	0	8	0.099	0.10	0.099	0.082	0.0872	0.081	0.076	96	99
2017	0	8	0	6	0.093	0.10	0.105	0.082	0.0898	0.082	0.077	84	95

NOTES: ALL CONCENTRATIONS EXPRESSED IN PARTS PER MILLION. THE NATIONAL 1-HOUR OZONE STANDARD WAS REVOKED IN JUNE 2005 AND IS NO LONGER IN EFFECT. STATISTICS RELATED TO THE REVOKED STANDARD ARE SHOWN IN ITALICS. D.V.¹ = STATE DESIGNATION VALUE. D.V.² = NATIONAL DESIGN VALUE.

SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.

TABLE 3.3-4: AMBIENT AIR QUALITY MONITORING DATA SUMMARY (SAN JOAQUIN VALLEY) – PM₁₀

YEAR	EST. DAYS > STD.		ANNUAL AVERAGE		HIGH 24-HR AVERAGE		YEAR COVERAGE
	NAT'L	STATE	NAT'L	STATE	NAT'L	STATE	
2022	3.8	171.2	56.7	54.9	250.8	251.6	0 – 10
2021	16.3	151.7	54.9	52.8	437.5	439.3	0 - 97
2020	38.7	157.0	64.5	60.5	517.2	359.0	0 - 100
2019	16.2	129.7	55.6	55.6	652.2	664.2	0 – 100
2018	9.6	164.4	54.5	53.0	250.2	250.4	0 – 100
2017	7.7	145.5	55.3	48.4	298.4	210.0	0 – 100

NOTES: THE NATIONAL ANNUAL AVERAGE PM₁₀ STANDARD WAS REVOKED IN DECEMBER 2006 AND IS NO LONGER IN EFFECT. AN EXCEEDANCE IS NOT NECESSARILY A VIOLATION. STATISTICS MAY INCLUDE DATA THAT ARE RELATED TO AN EXCEPTIONAL EVENT. STATE AND NATIONAL STATISTICS MAY DIFFER FOR THE FOLLOWING REASONS: STATE STATISTICS ARE BASED ON CALIFORNIA APPROVED SAMPLERS, WHEREAS NATIONAL STATISTICS ARE BASED ON SAMPLERS USING FEDERAL REFERENCE OR EQUIVALENT METHODS. STATE AND NATIONAL STATISTICS MAY THEREFORE BE BASED ON DIFFERENT SAMPLERS. NATIONAL STATISTICS ARE BASED ON STANDARD CONDITIONS. STATE CRITERIA FOR ENSURING THAT DATA ARE SUFFICIENTLY COMPLETE FOR CALCULATING VALID ANNUAL AVERAGES ARE MORE STRINGENT THAN THE NATIONAL CRITERIA. ND= THERE WAS INSUFFICIENT (OR NO) DATA AVAILABLE TO DETERMINE THE VALUE.

SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.

TABLE 3.3-5 AMBIENT AIR QUALITY MONITORING DATA SUMMARY (SAN JOAQUIN COUNTY) - PM_{2.5}

YEAR	EST. DAYS > NAT'L '06 STD.	ANNUAL AVERAGE		NAT'L ANN. STD. D.V. ¹	STATE ANNUAL D.V. ²	NAT'L '06 STD. 98TH PERCENTILE	NAT'L '06 24-HR STD. D.V. ¹	HIGH 24-HOUR AVERAGE		YEAR COVERAGE	
		NAT'L	STATE					NAT'L	STATE	MIN	MAX
2022	6.2	10.2	10.2	ND	15	35.2	54	51.9	51.9	72	96
2021	11.3	11.7	ND	ND	15	39.9	52	58.7	58.7	14	100
2020	24.0	14.8	14.8	13.7	17	91.6	72	140.0	140.0	98	99
2019	6.4	9.6	6.2	13.0	17	32.9	56	50.1	50.1	77	95
2018	25.0	17.6	17.4	13.8	17	96.9	56	188.0	257.5	96	100
2017	16.9	12.1	11.0	12.2	13	44.2	39	53.7	53.7	94	99

NOTES: ALL CONCENTRATIONS EXPRESSED IN PARTS PER MILLION. STATE AND NATIONAL STATISTICS MAY DIFFER FOR THE FOLLOWING REASONS: STATE STATISTICS ARE BASED ON CALIFORNIA APPROVED SAMPLERS, WHEREAS NATIONAL STATISTICS ARE BASED ON SAMPLERS USING FEDERAL REFERENCE OR

*EQUIVALENT METHODS. STATE AND NATIONAL STATISTICS MAY THEREFORE BE BASED ON DIFFERENT SAMPLERS. STATE CRITERIA FOR ENSURING THAT DATA ARE SUFFICIENTLY COMPLETE FOR CALCULATING VALID ANNUAL AVERAGES ARE MORE STRINGENT THAN THE NATIONAL CRITERIA. ND = THERE WAS INSUFFICIENT DATA AVAILABLE TO DETERMINE THE VALUE. D.V. ¹ = STATE DESIGNATION VALUE. D.V. ² = NATIONAL DESIGN VALUE
SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.*

ODORS

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headaches).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another.

It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two (2) properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air.

When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

SENSITIVE RECEPTORS

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive receptors are facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals, and residential

areas. The closest sensitive receptors to the Planning Area include existing residences located along Airport Way, just to the southwest of the Project site.⁸

3.3.2 REGULATORY SETTING

FEDERAL

Clean Air Act

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: NAAQS for criteria air pollutants, hazardous air pollutant standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The U.S. EPA is responsible for administering the FCAA. The FCAA requires the U.S. EPA to set NAAQS for several problem air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health (with an adequate margin of safety, including for sensitive receptor populations such as children, the elderly, and individuals suffering from respiratory diseases), and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

NAAQS standards define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. Existing violations of the ozone and PM_{2.5} ambient air quality standards indicate that certain individuals exposed to these pollutants may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

NAAQS standards have been designed to accurately reflect the latest scientific knowledge and are reviewed every five (5) years by a Clean Air Scientific Advisory Committee (CASAC), consisting of seven members appointed by the U.S. EPA administrator. Reviewing NAAQS is a lengthy undertaking and includes the following major phases: Planning, Integrated Science Assessment (ISA), Risk/Exposure Assessment (REA), Policy Assessment (PA), and Rulemaking. The process starts with a comprehensive review of the relevant scientific literature. The literature is summarized and conclusions are presented in the ISA. Based on the ISA, U.S. EPA staff perform a risk and exposure assessment, which is summarized in the REA document. The third document, the PA, integrates the findings and conclusions of the ISA and REA into a policy context, and provides lines of reasoning that could be used to support retention or revision of the existing NAAQS, as well as several alternative standards that could be supported by the review findings. Each of these three documents is released for public comment and public peer review by the CASAC. Members of CASAC are appointed by the U.S. EPA Administrator for their expertise in one or more of the subject areas

⁸ The closest residence is located approximately 275 feet southwest of the southwest portion of the Project site, located at 37.87714, -121.2507.

covered in the ISA. The CASAC's role is to peer review the NAAQS documents, ensure that they reflect the thinking of the scientific community, and advise the Administrator on the technical and scientific aspects of standard setting. Each document goes through two to three drafts before CASAC deems it to be final.

Although there is some variability among the health effects of exposure to the NAAQS pollutants, each has been linked to multiple adverse health effects including, among others, premature death, hospitalizations, and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing. NAAQS standards were last revised for each of the six criteria pollutant as listed below, with detail on what aspects of NAAQS changed during the most recent update:

- Ozone: On October 1, 2015, the U.S. EPA lowered the national eight-hour standard from 0.075 ppm to 0.070 ppm, providing for a more stringent standards consistent with the current California state standard.
- CO: In 2011, the primary standards were retained from the original 1971 level, without revision. The secondary standards were revoked in 1985.
- NO₂: The national NO₂ standard was most recently revised in 2010 following an exhaustive review of new literature pointed to evidence for adverse effects in asthmatics at lower NO₂ concentrations than the existing national standard.
- SO₂: On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb.
- PM: the national annual average PM_{2.5} standard was most recently revised in 2012 following an exhaustive review of new literature pointed to evidence for increased risk of premature mortality at lower PM_{2.5} concentrations than the existing standard.
- Lead: The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. In 2016, the primary and secondary standards were retained.

The law recognizes the importance for each state to locally carry out the requirements of the FCAA, as special consideration of local industries, geography, housing patterns, etc. are needed to have full comprehension of the local pollution control problems. As a result, the U.S. EPA requires each state to develop a State Implementation Plan (SIP) that explains how each state will implement the FCAA within their jurisdiction. A SIP is a collection of rules and regulations that a particular state will implement to control air quality within their jurisdiction. The CARB is the state agency that is responsible for preparing the California SIP.

Transportation Conformity

Transportation conformity requirements were added to the FCAA in the 1990 amendments, and the U.S. EPA adopted implementing regulations in 1997. See §176 of the FCAA (42 U.S.C. §7506) and 40 CFR Part 93, Subpart A. Transportation conformity serves much the same purpose as general conformity: it ensures that transportation plans, transportation improvement programs, and projects that are developed, funded, or approved by the United States Department of

Transportation or that are recipients of funds under the Federal Transit Act or from the Federal Highway Administration (FHWA), conform to the SIP as approved or promulgated by U.S. EPA.

Currently, transportation conformity applies in nonattainment areas and maintenance areas. Under transportation conformity, a determination of conformity with the applicable SIP must be made by the agency responsible for the Project, such as the Metropolitan Planning Organization, the Council of Governments, or a federal agency. The agency making the determination is also responsible for all the requirements relating to public participation. Generally, a project will be considered in conformance if it is in the transportation improvement plan and the transportation improvement plan is incorporated in the SIP. If an action is covered under transportation conformity, it does not need to be separately evaluated under general conformity.

Transportation Control Measures

One aspect of the SIP development process is the consideration of potential control measures as a part of making progress towards clean air goals. While most SIP control measures are aimed at reducing emissions from stationary sources, some are typically also created to address mobile or transportation sources. These are known as transportation control measures (TCMs). TCM strategies are designed to reduce vehicle miles traveled and trips, or vehicle idling and associated air pollution. These goals are achieved by developing attractive and convenient alternatives to single-occupant vehicle use. Examples of TCMs include ridesharing programs, transportation infrastructure improvements such as adding bicycle and carpool lanes, and expansion of public transit.

STATE

CARB Mobile-Source Regulation

The State of California is responsible for controlling emissions from the operation of motor vehicles in the State. Rather than mandating the use of specific technology or the reliance on a specific fuel, the CARB motor vehicle standards specify the allowable grams of pollution per mile driven. In other words, the regulations focus on the reductions needed rather than on the manner in which they are achieved. Towards this end, the CARB has adopted regulations which require auto manufacturers to phase in less polluting vehicles.

California Clean Air Act

The California Clean Air Act (CCAA) was first signed into law in 1988. The CCAA provides a comprehensive framework for air quality planning and regulation, and spells out, in statute, the state's air quality goals, planning and regulatory strategies, and performance. The CARB is the agency responsible for administering the CCAA. The CARB established ambient air quality standards pursuant to the California Health and Safety Code (CH&SC) [§39606(b)], which are like the federal standards.

California Air Quality Standards

Although NAAQS are determined by the U.S. EPA, states can set standards that are more stringent than the federal standards. As such, California established more stringent ambient air quality

standards. Federal and state ambient air quality standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulates, and lead. In addition, California has created standards for pollutants that are not covered by federal standards. Although there is some variability among the health effects of the CAAQS pollutants, each has been linked to multiple adverse health effects including, among others, premature death, hospitalizations, and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing. The existing state and federal primary standards for major pollutants are shown in Table 3.3-1.

Air quality standard setting in California commences with a critical review of all relevant peer reviewed scientific literature. The Office of Environmental Health Hazard Assessment (OEHHA) uses the review of health literature to develop a recommendation for the standard. The recommendation can be for no change or can recommend a new standard. The review, including the OEHHA recommendation, is summarized in a document called the draft Initial Statement of Reasons (ISOR), which is released for comment by the public, and for public peer review by the Air Quality Advisory Committee (AQAC). AQAC members are appointed by the President of the University of California for their expertise in the range of subjects covered in the ISOR, including health, exposure, air quality monitoring, atmospheric chemistry and physics, and effects on plants, trees, materials, and ecosystems. The Committee provides written comments on the draft ISOR. The ARB staff next revises the ISOR based on comments from AQAC and the public. The revised ISOR is then released for a 45-day public comment period prior to consideration by the Board at a regularly scheduled Board hearing.

In June of 2002, the CARB adopted revisions to the PM₁₀ standard and established a new PM_{2.5} annual standard. The new standards became effective in June 2003. Subsequently, staff reviewed the published scientific literature on ground-level ozone and nitrogen dioxide and the CARB adopted revisions to the standards for these two pollutants. Revised standards for ozone and nitrogen dioxide went into effect on May 17, 2006 and March 20, 2008, respectively. These revisions reflect the most recent changes to the CAAQS.

Tanner Air Toxics Act (TACs)

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and has adopted U.S. EPA's list of HAPs as TACs. Most recently, diesel PM was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technologies (BACT) to minimize emissions.

AB 2588 requires that existing facilities that emit toxic substances above a specified level prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of

significant risk levels, and prepare and implement risk reduction measures. CARB has adopted diesel exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators). In February 2000, CARB adopted a new public-transit bus-fleet rule and emission standards for new urban buses. These rules and standards provide for (1) more stringent emission standards for some new urban bus engines, beginning with 2002 model year engines; (2) zero-emission bus demonstration and purchase requirements applicable to transit agencies; and (3) reporting requirements under which transit agencies must demonstrate compliance with the urban transit bus fleet rule.

Omnibus Low-NOx Rule

The CARB approved the Omnibus Low-NOx Rule on August 28, 2020, which will require engine NOx emissions to be cut to approximately 75% below current standards beginning in 2024, and 90% below current standards in 2027. The rule also places nine additional regulatory requirements on new heavy-duty truck and engines. Those additional requirements include a 50% reduction in particulate matter emissions, stringent new low-load and idle standards, a new in-use testing protocol, extended deterioration requirements, a new California-only credit program, and extended mandatory warranty requirements. The regulatory requirements in the Omnibus Low-NOx Rule will first become effective in 2024, at the same time as the Advanced Clean Trucks regulations that CARB approved that mandates manufacturers convert increasing percentages of their heavy-duty trucks sold in California to zero-emission vehicles.

Assembly Bill 170

Assembly Bill 170, Reyes (AB 170), was adopted by state lawmakers in 2003, creating Government Code Section 65302.1, which requires cities and counties in the San Joaquin Valley to amend their general plans to include data and analysis, comprehensive goals, policies, and feasible implementation strategies designed to improve air quality. The elements to be amended include, but are not limited to, those elements dealing with land use, circulation, housing, conservation, and open space. Section 65302.1.c identifies four areas of air quality discussion required in these amendments:

- A report describing local air quality conditions, attainment status, and state and federal air quality and transportation plans;
- A summary of local, district, state, and federal policies, programs, and regulations to improve air quality;
- A comprehensive set of goals, policies, and objectives to improve air quality; and
- Feasible implementation measures designed to achieve these goals.

LOCAL

Envision Stockton 2040 General Plan

The following goals and policies of the Stockton General Plan related to air quality are applicable to the proposed Project.

POLICIES: LAND USE ELEMENT

- LU-1.1. Encourage retail businesses and housing development in mixed-use developments along regional transportation routes and in areas that serve local residents.
- LU-2.5. Promote Downtown Stockton as a primary transit node that provides multi-modal connections throughout the city and region.
- LU-3.2. Retain narrower roadways and reallocate right-of-way space to preserve street trees and mature landscaping and enhance the pedestrian and bicycle network within and adjacent to residential neighborhoods.
- LU-6.2. Prioritize development and redevelopment of vacant, underutilized, and blighted infill areas.
- LU-6.4. Ensure that land use decisions balance travel origins and destinations in as close proximity as possible and reduce vehicle miles traveled (VMT).
- LU-TR-1.1. Ensure that roadways safely and efficiently accommodate all modes and users, including private, commercial, and transit vehicles, as well as bicycles and pedestrians and vehicles for disabled travelers.

POLICIES: TRANSPORTATION ELEMENT

- TR-1.2. Enhance the use and convenience of rail service for both passenger and freight movement.
- TR-2.1. Develop safe and interconnected bicycle and pedestrian facilities, including along “complete” streets that target multiple travel modes.
- TR-2.3. Utilize natural features and routes with lower traffic volumes and speeds to encourage residents to walk and wheel more frequently.
- TR-3.1. Avoid widening existing roadways in an effort to preclude inducement of additional vehicle traffic.
- TR-3.2. Require new development and transportation projects to reduce travel demand and greenhouse gas emissions, support electric vehicle charging, and accommodate multi-passenger autonomous vehicle travel as much as feasible.
- TR-4.2. Replace LOS with: (1) vehicle-miles traveled (VMT) per capita; and (2) impacts to non-automobile travel modes, as the metrics to analyze impacts related to land use proposals under the California Environmental Quality Act, in accordance with SB 743.

POLICIES: SAFETY ELEMENT

- SAF-4.1. Reduce air impacts from mobile and stationary sources of air pollution.
- SAF-4.2. Encourage major employers to participate in a transportation demand management program (TDM) that reduces vehicle trips through approaches such as carpooling, vanpooling, shuttles, car-sharing, bikesharing, end-of-trip facilities like showers and bicycle parking, subscription bus service, transit subsidies, preferential parking, and telecommuting.

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- SAF-4.3. Coordinate with the San Joaquin Valley Air Pollution Control District and non-profit organizations to promote public awareness on air quality issues and consistency in air quality impacts analyses.

ACTIONS: LAND USE ELEMENT

- LU-1.1A. Require renovated and new mixed-use projects to be planned and designed to contribute to the corridor's identity through appropriate public spaces, gateways, streetscapes, pedestrian walkways, setbacks, edge treatments, and other design features.
- LU-1.1B. Evaluate the City's parking policies and amend the Development Code to provide more flexibility as appropriate to facilitate mixed-use redevelopment.
- LU-2.5A. Improve transit, bicycle, and pedestrian connectivity between the Downtown and local colleges and universities.
- LU-3.2A. Implement the "road diet" recommendations from the City's Bicycle Master Plan that reduce roadway widths to provide space for bike lanes and other amenities that improve safety and ease of the streetscape for all modes.
- LU-6.2D. Comply with State requirements that limit the idling of motor vehicles.
- LU-6.4B. Maintain a reasonable proximity and balance (i.e., magnitude) between job-generating uses, housing opportunities, and resident services and amenities, including transit and active transportation.
- LU-6.4C. Reduce Vehicle Miles Traveled (VMT) per household by planning new housing in closest proximity to employment centers, improving and funding public transportation and ridesharing, and facilitating more direct routes for pedestrians and bicyclists.

POLICIES: COMMUNITY HEALTH ELEMENT

- CH-5.1. Accommodate a changing climate through adaptation, mitigation, and resiliency planning and projects.
- CH-5.2. Expand opportunities for recycling, re-use of materials, and waste reduction.

ACTIONS: TRANSPORTATION ELEMENT

- TR-1.1A. Direct truck traffic to designated truck routes that facilitate efficient goods movement and minimize risk to areas with concentrations of sensitive receptors, such as schools, for example by disallowing any new truck routes to pass directly on streets where schools are located, and vulnerable road users, like pedestrians and bicyclists.
- TR-1.1B. Maintain and periodically update a schedule for synchronizing traffic signals along arterial streets and freeway interchanges to facilitate the safe and efficient movement of people and goods and to provide signal priority for transit vehicles at intersections.
- TR-1.1C. Require roadways in new development areas to be designed with multiple points of access and to address barriers, including waterways and railroads, in order to maximize connectivity for all modes of transportation.

- TR-1.1D. Update existing Precise Road Plans to reflect the 2040 General Plan, including changes in land use and level of service requirements, and a shift in priority from vehicular travel to travel by all modes through complete streets.
- TR-1.1E. Work with local school districts to implement pedestrian crossing enhancements like stop signs within neighborhoods around schools, encourage activities like a walking school bus, and create educational programs that teach students bicycle safety.
- TR-1.2A. Actively support and pursue access to high-speed rail.
- TR-1.2B. Support the San Joaquin Regional Transportation District's Regional Bus Service, Altamont Commuter Express (ACE), and AMTRAK's San Joaquin intercity rail service, and pursue and support other regional transit programs and projects, such as:
 - ACE plans to bypass existing bottlenecks (e.g., the Union Pacific railyards in South Stockton);
 - Connecting to the BART system;
 - Extending ACE service south to Merced; and
 - Proposing rail between Stockton and Sacramento along the California Traction and other rail corridors.
- TR-2.1A. Require safe and secure bicycle parking facilities to be provided at major activity centers such as public facilities, employment sites, and shopping and office centers, along with showers and lockers for major employment sites.
- TR-2.1B. Maintain and implement the City of Stockton Bicycle Master Plan.
- TR-2.1C. Maintain and implement the City of Stockton Safe Route to School Plan.
- TR-2.2A. Require major new development to incorporate and fund design features to promote safe and comfortable access to transit, such as a circulation network that facilitates efficient and connected bus travel, clear pedestrian and bicycle routes connecting origins and destinations to transit stops, sheltered bus stops, park-and-ride facilities, and highly visible transit information and maps.
- TR-2.2B. Obtain input from community residents, non-profit organizations, and local and regional transit operators on major new development projects, and support transit operators by ensuring major projects are designed to support transit and provide fair share funding of the cost of adequate transit service and access.
- TR-2.2C. Request that public transit service providers expand routes and increase frequency and operational hours consistent with current short- and long-range transit planning, with the assistance of new development funding.
- TR-2.2D. Support efforts to electrify buses.
- TR-2.3A. Develop and maintain bikeways on separate rights-of-way (e.g., Calaveras River, East Bay Municipal Utility District easement, French Camp Slough, and Shima Tract Levee).
- TR-2.3B. Require dedication of adequate right-of-way for bicycle use in new arterial and collector streets, and where feasible, in street improvement projects.
- TR-3.1A. Limit street widths to the minimum necessary to adequately carry the volume of anticipated traffic, while allowing for safe bicycle and pedestrian facilities, emergency access, and large vehicle access.

- TR-3.1B. Where feasible and appropriate, reduce the width of existing streets using bulb-outs, medians, pedestrian islands, shade tree landscaping, appropriate signage, and similar methods, while not jeopardizing emergency response.
- TR-3.1C. Preserve right-of-way for transit and bicycle uses when designing new roadways and improving existing roadways and ensuring adequate and clear signage.
- TR-3.2A. Amend the parking requirements in the Development Code to encourage shared parking, require preferential parking for rideshare vehicles, and allow reduced parking requirements to support transit, bicycling, and walking.
- TR-3.2B. Require commercial, retail, office, industrial, and multifamily residential development to provide charging stations and prioritized parking for electric and alternative fuel vehicles.
- TR-3.2C. Respond to the implications and opportunities associated with connected vehicles and autonomous vehicles by monitoring technological advances and adjusting roadway infrastructure and parking standards to accommodate autonomous vehicle technology and parking needs.
- TR-3.2D. Continue to coordinate with the San Joaquin Council of Governments to increase opportunities for additional park and ride facilities, consistent with the San Joaquin County Regional Park and Ride Lot Master Plan.
- TR-4.2A. To evaluate the effects of new development and determine mitigation measures and impact fees, require projects to evaluate per capita VMT and impacts to transit, bicycle, and pedestrian modes.
- TR-4.2B. Amend the City's Transportation Impact Analysis Guidelines to include alternative travel metrics and screening criteria.

ACTIONS: SAFETY ELEMENT

- SAF-4.1A. Require the construction and operation of new development to implement best practices that reduce air pollutant emissions, including:
 - Use of low-emission and well-maintained construction equipment, with idling time limits.
 - Development and implementation of a dust control plan during construction.
 - Installation of electrical service connections at loading docks, where appropriate.
 - Installation of Energy Star-certified appliances.
 - Entering into Voluntary Emissions Reduction Agreements with the San Joaquin Valley Air Pollution Control District.
- SAF-4.1B. Use the results of the Health Risk Assessments required by the California Air Toxics "Hot Spots" Act to establish appropriate land use buffer zones around any new sources of toxic air pollutants that pose substantial health risks.
- SAF-4.1C. Require the use of electric-powered construction and landscaping equipment as conditions of project approval when appropriate.
- SAF-4.1D. Limit heavy-duty off-road equipment idling time to meet the California Air Resources Board's idling regulations for on-road trucks.

- SAF-4.2D. Provide information and conduct marketing and outreach to major existing and new employers about the transportation demand management (TDM) program facilitated by the San Joaquin Council of Governments.
- SAF-4.3A. Distribute educational materials from the San Joaquin Valley Air Pollution Control District on the City's website and at its Permit Center.
- SAF-4.3B. Coordinate review of development project applications with the San Joaquin Valley Air Pollution Control District to ensure that air quality impacts are consistently identified and mitigated during CEQA review.

POLICIES: COMMUNITY HEALTH

- CH-5.1A. Upon the next revision of the City's Local Hazard Mitigation Plan, conduct a comprehensive climate change vulnerability assessment to inform the development of adaptation and resilience policies and strategies, and incorporate them into the Safety Element, in accordance with SB 379.
- CH-5.1B. Maintain and implement the City of Stockton Climate Action Plan (CAP) and update the CAP to include the following:
 - Updated communitywide GHG emissions inventory;
 - 2030 GHG emissions reduction target, consistent with SB 32;
 - Estimated 2030 GHG emissions reduction benefits of State programs;
 - Summary of the City's progress toward the 2020 local GHG emissions reduction target;
 - New and/or revised GHG reduction strategies that, when quantified, achieve the 2030 reduction target and continue emission reductions beyond 2030; and
 - New or updated implementation plan for the CAP.
- CH-5.1C. Accommodate a changing climate through adaptation and resiliency planning and projects.
- CH-5.2A. Use recycled materials and products for City projects and operations where economically feasible, and work with recycling contractors to encourage businesses to use recycled products in their manufacturing processes and encourage consumers to purchase recycled products.
- CH-5.2B. Continue to require recycling in private and public operations, including construction/demolition debris.
- CH-5.2C. Expand educational and outreach efforts to promote recycling by occupants of multi-family housing, businesses, and schools.

San Joaquin Valley Air Pollution Control District

The primary role of SJVAPCD is to develop plans and implement control measures in the SJVAB to control air pollution. These controls primarily affect stationary sources such as industry and power plants. Rules and regulations have been developed by SJVAPCD to control air pollution from a wide range of air pollution sources. SJVAPCD also provides uniform procedures for assessing potential air quality impacts of proposed projects and for preparing the air quality section of environmental documents.

AIR QUALITY PLANNING

The U.S. EPA requires states that have areas that do not meet the National AAQS to prepare and submit air quality plans showing how the National AAQS will be met. If the states cannot show how the National AAQS will be met, then the states must show progress toward meeting the National AAQS. These plans are referred to as the State Implementation Plans (SIP). California's adopted 2007 State Strategy was submitted to the U.S. EPA as a revision to its SIP in November 2007.⁹ More recently, in October 2018, the CARB adopted the 2018 Updates to the California State Implementation Plan.

In addition, the CARB requires regions that do not meet California AAQS for ozone to submit clean air plans (CAPs) that describe measures to attain the standard or show progress toward attainment. To ensure federal CAA compliance, SJVAPCD is currently developing plans for meeting new National AAQS for ozone and PM_{2.5} and the California AAQS for PM₁₀ in the SJVAB (for California CAA compliance)¹⁰ The following describes the air plans prepared by the SJVAPCD, which are incorporated by reference per CEQA Guidelines Section 15150.

1-HOUR OZONE PLAN

Although U.S. EPA revoked its 1979 1-hour ozone standard in June 2005, many planning requirements remain in place, and SJVAPCD must still attain this standard before it can rescind CAA Section 185 fees. The SJVAPCD's most recent 1-hour ozone plan, the 2013 Plan for the Revoked 1-hour Ozone Standard, demonstrated attainment of the 1-hour ozone standard by 2017. However, on July 18, 2016, the U.S. EPA published in the Federal Register a final action determining that SJVAB has attained the 1-hour ozone NAAQS based on the 2012 to 2014 three-year period allowing nonattainment penalties to be lifted under federal Clean Air Act section 179b (SJVAPCD, 2015). In 2023, the SJVAPCD adopted the 2023 Maintenance Plan and Redesignation Request for the Revoked 1-Hour Ozone Standard.¹¹

8-HOUR OZONE PLAN

The SJVAPCD's Governing Board adopted the 2007 Ozone Plan on April 30, 2007. This far-reaching plan, with innovative measures and a "dual path" strategy, assures expeditious attainment of the federal 8-hour ozone standard as set by U.S. EPA in 1997. The CARB approved the plan on June 14, 2007. The U.S. EPA approved the 2007 Ozone Plan effective April 30, 2012. SJVAPCD adopted the 2016 Ozone Plan to address the federal 2008 8-hour ozone standard, which must be attained by end

⁹ Note that the plan was adopted by CARB on September 27, 2007; California Air Resources Board. 2007. California Air Resources Board's Proposed State Strategy for California's 2007 State Implementation Plan.

¹⁰ SJVAPCD, 2012. 2012 PM_{2.5} Plan, December 20.

¹¹ SJVAPCD, 2023. 2023 Maintenance Plan and Redesignation Request for the Revoked 1-Hour Ozone Standard. <https://ww2.valleyair.org/media/itoegkch/03-adopted-2023-maintenance-plan-and-redesignation-request-for-the-revoked-1-hour-ozone-standard.pdf>

of 2031.^{12,13} More recently, the SJVAPCD adopted the 2022 Ozone Plan for the San Joaquin Valley on December 15, 2022.¹⁴

PM₁₀ PLAN

Based on PM₁₀ measurements from 2003 to 2006, the U.S. EPA found that the SJVAB has reached federal PM₁₀ standards. On September 21, 2007, the SJVAPCD's Governing Board adopted the 2007 PM₁₀ Maintenance Plan and Request for Redesignation. This plan demonstrates that the valley will continue to meet the PM₁₀ standard. U.S. EPA approved the document and on September 25, 2008, the SJVAB was redesignated to attainment/maintenance (SJVAPCD, 2015).

PM_{2.5} PLAN

The SJVAPCD adopted the 2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards on November 15, 2018.¹⁵ This plan addresses the U.S. EPA federal 1997 annual PM_{2.5} standard of 15 µg/m³ and 24-hour PM_{2.5} standard of 65 µg/m³; the 2006 24-hour PM_{2.5} standard of 35 µg/m³; and the 2012 annual PM_{2.5} standard of 12 µg/m³. This plan requires attainment of the federal PM_{2.5} standards as expeditiously as practicable (SJVAPCD, 2020). More recently, the SJVAPCD adopted the 2024 Plan for the 2012 PM_{2.5} Standard on June 20, 2024.¹⁶

All the above-referenced plans include measures (i.e., federal, state, and local) that would be implemented through rule making or program funding to reduce air pollutant emissions in the SJVAB. Transportation control measures are part of these plans.

SJVAPCD RULES AND REGULATIONS

SJVAPCD Indirect Source Review

On December 15, 2005, SJVAPCD adopted the Indirect Source Review Rule (ISR or Rule 9510) to reduce ozone precursors (i.e., ROG and NO_x) and PM₁₀ emissions from new land use development projects. Specifically, Rule 9510 targets the indirect emissions from vehicles and construction equipment associated with these projects and applies to both construction and operational-related impacts. The rule applies to any applicant that seeks to gain a final discretionary approval for a development project, or any portion thereof, which upon full buildout would include any one of the following:

¹² SJVAPCD. Ozone Plans. http://www.valleyair.org/Air_Quality_Plans/Ozone_Plans.htm, accessed March 3, 2020.

¹³ SJVAPCD. 2016 Plan for the 2008 8-Hour Ozone Standard, http://www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm, accessed March 3, 2020.

¹⁴ SJVAPCD. 2022. 2022 Plan for the 2015 8-hour Ozone Standard, <https://ww2.valleyair.org/rules-and-planning/air-quality-plans/ozone-plans/2022-ozone-plan-for-the-san-joaquin-valley/>

¹⁵ SJVAPCD. Particulate Matter Plans. http://valleyair.org/Air_Quality_Plans/PM_Plans.htm, accessed March 9, 2020.

¹⁶ SJVAPCD. 2024. 2024 Plan for the 2012 PM_{2.5} Standard. <https://ww2.valleyair.org/media/gw5bacvj/2024-pm25-plan.pdf>

- 50 residential units.
- 2,000 square feet of commercial space.
- 25,000 square feet of light industrial space.
- 100,000 square feet of heavy industrial space.
- 20,000 square feet of medical office space.
- 39,000 square feet of general office space.
- 9,000 square feet of educational space.
- 10,000 square feet of government space.
- 20,000 square feet of recreational space.
- 9,000 square feet of space not identified above.
- Transportation/transit projects with construction exhaust emissions of two or more tons of NO_x or two or more tons of PM₁₀.
- Residential projects on contiguous or adjacent property under common ownership of a single entity in whole or in part, that is designated and zoned for the same development density and land use, regardless of the number of tract maps, and has the capability of accommodating more than 50 residential units.
- Nonresidential projects on contiguous or adjacent property under common ownership of a single entity in whole or in part, that is designated and zoned for the same development density and land use, and has the capability of accommodating development projects that emit two or more tons per year of NO_x or PM₁₀ during project operations.

The rule requires all subject, nonexempt projects to mitigate both construction and operational period emissions by (1) applying feasible SJVAPCD-approved mitigation measures, or (2) paying any applicable fees to support programs that reduce emissions. Off-site emissions reduction fees (off-site fee) are required for projects that do not achieve the required emissions reductions through on-site emission reduction measures. Phased projects can defer payment of fees in accordance with an Off-site Emissions Reduction Fee Deferral Schedule (FDS) approved by the SJVAPCD.

To determine how an individual project would satisfy Rule 9510, each project would submit an air quality impact assessment (AIA) to the SJVAPCD as early as possible, but no later than prior to the project's final discretionary approval, to identify the project's baseline unmitigated emissions inventory for indirect sources: on-site exhaust emissions from construction activities and operational activities from mobile and area sources of emissions (excludes fugitive dust and permitted sources). Rule 9510 requires the following reductions, which are levels that the SJVAPCD has identified as necessary, based on their air quality management plans, to reach attainment for ozone and particulate matter:

Construction Equipment Emissions

The exhaust emissions for construction equipment greater than 50 horsepower (hp) used or associated with the development project shall be reduced by the following amounts from the statewide average as estimated by CARB:

- 20 percent of the total NO_x emissions
- 45 percent of the total PM₁₀ exhaust emissions

Mitigation measures may include those that reduce construction emissions on-site by using less polluting construction equipment, which can be achieved by utilizing add-on controls, cleaner fuels, or newer, lower emitting equipment.

Operational Emissions

- NOx Emissions. Applicants shall reduce 33.3 percent of the project's operational baseline NOx emissions over a period of 10 years as quantified in the approved AIA.
- PM₁₀ Emissions. Applicants shall reduce of 50 percent of the project's operational baseline PM₁₀ emissions over a period of 10 years as quantified in the approved AIA.

These requirements listed above can be met through any combination of on-site emission reduction measures. If a project cannot achieve the above standards through imposition of mitigation measures, then the project would be required to pay the applicable off-site fees. These fees are used to fund various incentive programs that cover the purchase of new equipment, engine retrofit, and education and outreach.

Fugitive PM₁₀ Prohibitions

SJVAPCD controls fugitive PM₁₀ through Regulation VIII, Fugitive PM₁₀ Prohibitions. The purpose of this regulation is to reduce ambient concentrations of PM₁₀ and PM_{2.5} by requiring actions to prevent, reduce, or mitigate anthropogenic (human caused) fugitive dust emissions.

- Regulation VIII, Rule 8021 applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on-site, and travel on access roads to and from the site.
- Regulation VIII, Rule 8031 applies to the outdoor handling, storage, and transport of any bulk material.
- Regulation VIII, Rule 8041 applies to sites where carryout or trackout has occurred or may occur on paved roads or the paved shoulders of public roads.
- Regulation VIII, Rule 8051 applies to any open area having 0.5 acre or more within urban areas or 3.0 acres or more within rural areas and contains at least 1,000 square feet of disturbed surface area.
- Regulation VIII, Rule 8061 applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.
- Regulation VIII, Rule 8071 applies to any unpaved vehicle/equipment traffic area.
- Regulation VIII, Rule 8081 applies to off-field agricultural sources.

Sources regulated are required to provide Dust Control Plans that meet the regulation requirements. Under Rule 8021, a Dust Control Plan is required for any residential project that will include 10 or more acres of disturbed surface area, a nonresidential project with 5 or more acres of disturbed surface area, or a project that relocates 2,500 cubic yards per day of bulk materials for at least three days. The Dust Control Plan is required to be submitted to SJVAPCD prior to the start of any construction activity. The Dust Control Plan must also describe fugitive dust control measure to be implemented before, during, and after any dust-generating activity. For sites smaller than those

listed above, the project is still required to notify SJVAPCD a minimum of 48 hours prior to commencing earthmoving activities.

National Emission Standards for Hazardous Air Pollutants

Rule 4002 applies in the event an existing building will be renovated, partially demolished, or removed (National Emission Standards for Hazardous Air Pollutants); this rule applies to all sources of Hazardous Air Pollutants.

Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations

If asphalt paving will be used, then paving operations of the proposed Project will be subject to Rule 4641. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.

Nuisance Odors

SJVAPCD controls nuisance odors through implementation of Rule 4102, Nuisance. Pursuant to this rule, “a person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property.”

Employer Based Trip Reduction Program

SJVAPCD has implemented Rule 9410, Employer Based Trip Reduction. The purpose of this rule is to reduce VMT from private vehicles used by employees to commute to and from their worksites to reduce emissions of NO_x, ROG, and particulate matter (PM₁₀ and PM_{2.5}). The rule applies to employers with at least 100 employees. Employers are required to implement an Employer Trip Reduction Implementation Plan (ETRIP) for each worksite with 100 or more eligible employees to meet applicable targets specified in the rule. Employers are required to facilitate the participation of the development of ETRIPs by providing information to its employees explaining the requirements and applicability of this rule. Employers are required to prepare and submit an ETRIP for each worksite to the District. The ETRIP must be updated annually. Under this rule, employers shall collect information on the modes of transportation used for each eligible employee’s commutes both to and from work for every day of the commute verification period, as defined in using either the mandatory commute verification method or a representative survey method. Annual reporting includes the results of the commute verification for the previous calendar year along with the measures implemented as outlined in the ETRIP and, if necessary, any updates to the ETRIP.

3.3.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on the environment associated with air quality if it will:

- Conflict with or obstruct implementation of the applicable air quality plan;

- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; and/or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

APPROACH TO ANALYSIS

While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, the SJVAPCD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions.¹⁷ If the Lead Agency finds that the project would exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. The applicable SJVAPCD thresholds and methodologies are contained under each impact statement below, as the City, in its discretion, has determined to utilize these thresholds and methodologies, which are based on scientific and factual data.

This analysis was performed consistent with the guidance and methodologies provided by the SJVAPCD's GAMAQI.¹⁸ Based on the SJVAPCD New Source Review (NSR) offset requirements for stationary sources, the SJVAPCD has established thresholds of significance for criteria pollutant emissions, shown in Table 3.3-6. These thresholds apply to the project because these air pollutants would be generated during project construction and operation and constitute criteria pollutants or precursor emissions for criteria pollutants, which are regulated by the federal and State Clean Air Acts.

TABLE 3.3-6: SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT SIGNIFICANCE THRESHOLDS

POLLUTANT	CONSTRUCTION THRESHOLDS (TPY)	OPERATIONAL THRESHOLDS (TPY)
ROG	10	10
NOx	10	10
CO	100	100
SOx	27	27
PM ₁₀	15	15
PM _{2.5}	15	15

SOURCES: SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT (SJVAPCD). 2015. GUIDANCE FOR ASSESSING AND MITIGATING AIR QUALITY IMPACT. WEBSITE:

¹⁷ See also CEQA Guidelines Appendix G, § III: Air Quality ("Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the [significance threshold] determinations....") (Cal. Code Regs., tit. 14, § Div. 6 Ch. 3 App. G.)

¹⁸ San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impact. Website: <https://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Jan%202002%20Rev.pdf> Accessed March 6, 2024.

3.3 AIR QUALITY

[HTTPS://WWW.VALLEYAIR.ORG/TRANSPORTATION/CEQA%20RULES/GAMAQI%20JAN%202002%20REV.PDF](https://www.valleyair.org/transportation/ceqa%20rules/gamaqi%20jan%202002%20rev.pdf) ACCESSED MARCH 6, 2024.

Criteria pollutant emissions area analyzed under Impact 3.3-1 and Impact 3.3-2. It should be noted that only operational-related criteria pollutant emissions are analyzed under Impact 3.3-1, while only construction-related criteria pollutant emissions are analyzed under Impact 3.3-2. Impact 3.3-3 analyzes the potential for sensitive receptors to be exposed to substantial pollutant concentrations (including for both Project operation and construction), and Impact 3.3-4 analyzes whether the Project would results in other emissions that could adversely affect a substantial number of people.

CRITERIA POLLUTANT EMISSIONS MODELING

California Emission Estimator Model (CalEEMod)TM (v.2022.1), developed for the California Air Pollution Officers Association (CAPCOA) in collaboration with California air districts, was used to estimate emissions for the proposed Project. Project construction was assumed to be completed by 2040 over several phases. This may prove to be a conservative estimate, because criteria pollutant emission rates are reduced over time (due to state and federal mandates) and would be expected to be even lower than reported in this analysis, should Project construction be completed after 2040.

The assumptions for the modeling were selected on a best-fit basis and are consistent with Table 2.0-2 in Chapter 2.0: Project Description. The land uses modeled include: Commercial – Regional Shopping Center (140,350 square feet); Industrial – General Heavy Industry (426,409 square feet); Industrial – Industrial Park (913,733 square feet); Industrial – Unrefrigerated Warehouse-No Rail (3,837,677 square feet); Industrial – Refrigerated Warehouse-No Rail (913,733 square feet); Parking – Other Asphalt Surfaces (18.2 acres); Parking – Other Non-Asphalt Surfaces (41 acres); Recreational -- City Park (54 acres). Vehicle trip rates estimated in the modeling are consistent with the vehicle trips rates included in the modeling developed by Fehr & Peers.

The construction phase details are provided in Table 3.3-7, below. See Appendix B for further detail.

TABLE 3.3-7: ANTICIPATED CONSTRUCTION SCHEDULE

<i>CALEEMOD PHASE</i>	<i>CALEEMOD PHASE START DATE</i>	<i>CALEEMOD PHASE END DATE</i>
Site Preparation	8/1/2024	7/1/2025
Grading	7/2/2025	11/14/2027
Building Construction	11/15/2027	12/30/2038
Paving	11/15/2028	7/23/2030
Architectural Coatings	11/15/2037	12/23/2039

SOURCE: CALEEMOD v.2022.1.

IMPACTS AND MITIGATION MEASURES

Impact 3.3-1: Project operations would result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment, or conflict or obstruct implementation of the District's air quality plan. (Significant and Unavoidable)

OPERATIONAL-RELATED EMISSIONS

The SJVAPCD is tasked with implementing programs and regulations required by the Federal Clean Air Act and the California Clean Air Act. In that capacity, the SJVAPCD has prepared plans to attain Federal and State ambient air quality standards. To achieve attainment with the standards, the SJVAPCD has established thresholds of significance for criteria pollutant emissions in their *SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts* (2015). Projects with emissions below the thresholds of significance for criteria pollutants would be determined to “Not conflict or obstruct implementation of the District's air quality plan,”

The proposed Project would be both a direct and indirect source of air pollution. Direct sources of pollution include area, energy, and water and waste sources, due to development of the on-site buildings and associated infrastructure. Indirect sources of pollution would be due to the generation of VMT of from vehicles traveling to and from the Project site. As provided in the Traffic Impact Assessment for the proposed Project, the proposed Project would increase daily VMT by approximately 13.4% when compared to the Baseline City of Stockton Travel Demand Model. More specifically, the proposed Project's average daily home-based work vehicle miles traveled per worker was estimated to be 21.05 miles for the industrial, food and retail employees that either live and work in the City of Stockton and employees that travel to and from neighboring cities to work at the Project site, as provided in the Traffic Impact Assessment. Additionally, the number of total trips estimated for the Project is a total of 22,633 one-way trips per day, as provided by Fehr & Peers. Approximately 5,552 of the one-way trips per day would be heavy-duty truck trips, according to Fehr & Peers. CalEEMod™ (v.2022.1) was used to model operational emissions of the proposed Project. Table 3.3-8 shows proposed Project emissions as provided by CalEEMod. The SJVAPCD provides a list of applicable air quality emissions thresholds.

TABLE 3.3-8: OPERATIONAL PROJECT GENERATED EMISSIONS (TONS PER YEAR)

<i>POLLUTANT</i>	<i>CO</i>	<i>NOx</i>	<i>ROG</i>	<i>SOx</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>
THRESHOLD	100	10	10	27	15	15
EMISSIONS	239	104	49.2	1.31	105	28.3
EXCEEDS THRESHOLD?	Y	Y	Y	N	Y	Y

SOURCES: CAL EEMOD (v.2022.1)

Separately, it should be noted that the current version of CalEEMod does not account for air pollutant emissions from truck refrigeration units (TRUs) during refrigerated truck idling or mobile

3.3 AIR QUALITY

activity. Since a portion of the Project is anticipated to be used for cold storage,^{19,20} TRUs in refrigerated trucks would generate additional PM₁₀ emissions beyond those identified in Table 3.3-8, above. Specifically, based on the proposed Project characteristics (i.e. based on an estimate of 15% of trucks trips using cold storage), Project TRUs are anticipated to generate approximately 30 pounds of PM₁₀ per year, equivalent to <0.1 tons of PM₁₀ per year, from TRU idling. TRU emissions during mobile truck activities are anticipated to generate emissions up to 80 times this level²¹, which is equivalent to an additional approximately 2,400 pounds of PM₁₀ per year, or approximately 1.2 tons of PM₁₀ per year, beyond what is shown in Table 3.3-8. Table 3.3-9 shows the proposed Project emissions with TRU emissions accounted for.

TABLE 3.3-9: OPERATIONAL PROJECT GENERATED EMISSIONS INCLUSIVE OF TRU EMISSIONS (TONS PER YEAR)

POLLUTANT	CO	NOX	ROG	SOX	PM ₁₀	PM _{2.5}
THRESHOLD	100	10	10	27	15	15
EMISSIONS	239	104	49.2	1.31	106.2	28.3
EXCEEDS THRESHOLD?	Y	Y	Y	N	Y	Y

SOURCES: CALHEMOD (V.2022.1); DE NOVO PLANNING GROUP, 2024.

The SJVAPCD has established their thresholds of significance by which the Project emissions are compared against to determine the level of significance. The SJVAPCD has established operations related emissions thresholds of significance as follows: 100 tons per year of carbon monoxide (CO), 10 tons per year of oxides of nitrogen (NO_x), 10 tons per year of reactive organic gases (ROG), 27 tons per year of sulfur oxides (SO_x), 15 tons per year particulate matter of 10 microns or less in size (PM₁₀), and 15 tons per year particulate matter of 2.5 microns or less in size (PM_{2.5}). If the proposed Project's emissions will exceed the SJVAPCD's threshold of significance for operational-generated emissions, the proposed Project will have a significant impact on air quality and all feasible mitigation are required to be implemented to reduce emissions to the extent feasible.

As shown in Table 3.3-8 and Table 3.3-9 above, operational emissions would exceed the SJVAPCD thresholds of significance for CO, NO_x, ROG, PM₁₀ and PM_{2.5}. Therefore, the proposed Project is required to implement all feasible mitigation to reduce criteria pollutant emissions to below the applicable SJVAPCD thresholds of significance. Therefore, the proposed Project would be required to implement Mitigation Measure 3.3-1 through Mitigation Measure 3.3-18. These measures include various operation-related requirements that would reduce emissions. These measures would ensure that individual Projects within the footprint of the proposed Project would reduce emissions to the extent feasible.

¹⁹ Approximately 15% of Project uses (and therefore truck trips) are assumed to be cold storage, consistent with the assumptions made by Fehr & Peers in the Traffic Impact Assessment.

²⁰ It was assumed that truck TRU idling on-site no more than 15 minutes per truck visit (i.e. during truck loading/unloading), consistent California Air Resource Board requirements. See: https://ww2.arb.ca.gov/sites/default/files/2020-12/commercial_vehicle_idling_requirements_July%202016.pdf

²¹ Under the assumption that refrigerated trucks operate their TRUs approximately 10 hours per day.

CONCLUSION

The San Joaquin Valley Air Pollution Control District (SJVAPCD) has established rules and regulations designed to reduce operational emissions. The intent is that each phase of development would not exceed the applicable SJVAPCD criteria pollutant thresholds for Project operations. Additionally, the City of Stockton has adopted an Industrial Warehouse Ordinance that establishes new logistics warehouse development standards. These standards became effective on January 11, 2024. These standards apply to logistics warehouses 100,000 square feet in size or greater, and so they are applicable to the proposed Project. The Ordinance requires specific site plan design and building design, more stringent construction permit approval standards, and other requirements for ongoing operations, which were designed to be consistent with the California Department of Justice's "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act" document for use by municipalities in the design and development of new industrial projects.²² Refer to the 'City of Stockton Warehouse Ordinance Compliance' discussion in Section 2.0: Project Description. Mitigation Measures 3.3-1 through 3.3-18 have been designed to be consistent with and go above and beyond both the City's Ordinance as well as the California Department of Justice's "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act" document.

With implementation of Mitigation Measures 3.3-1 through 3.3-18, the Project's operational emissions would be reduced, although not to a level below significance. The mitigation measures presented here would apply to each individual phase of development as each moves forward with improvement plans, final maps, building plans, site plan review, etc. The intent is to reduce emissions to below the applicable SJVAPCD thresholds as much as possible through on- and off-site mitigation measures. However, even with implementation of all feasible mitigation, it may not be feasible for all individual phases of development within the Project site (and thereby the Project as a whole) to reduce operational emissions at full Project buildout below the applicable thresholds. Therefore, the Project's criteria pollutant emissions would be considered to have a **significant and unavoidable** impact.

MITIGATION MEASURES

Mitigation Measure 3.3-1: *Prior to the issuance of the first building permit, the applicant/developer shall demonstrate compliance with the SJVAPCD Rule 9510 (Indirect Source Review) to reduce growth in both NOx and PM10 emissions, as required by SJVAPCD and City requirements.*

Mitigation Measure 3.3-2: *Architectural and industrial coatings (e.g. paints) applied shall be consistent with the Volatile Organic Compound (VOC) content limits set by the San Joaquin Valley Air Pollution Control District (SJVAPCD) or the current edition of the California Green Building Standards Code (CALGreen), whichever is most restrictive. Developer or tenant is not required to exercise control over materials painted offsite.*

Mitigation Measure 3.3-3: *Prior to building occupancy, employers with 100 or more eligible employees shall submit an Employer Trip Reduction Implementation Plan (ETRIP) to the City for review and approval, as*

²² See: <https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf>

required by SJVAPCD Rule 9410. A copy of the ETRIP shall be provided to the SJVAPCD. Employers shall facilitate participation in the implementation of the ETRIP by providing information to its employees explaining methods for participation in the Plan and the purpose, requirements, and applicability of Rule 9410.

Mitigation Measure 3.3-4: *The project shall comply with SJVAPCD Rule 4101, which prohibits emissions of visible air contaminants to the atmosphere and applies to any source operation that emits or may emit air contaminants.*

Mitigation Measure 3.3-5: *Each developer of an individual specific development proposal shall prepare the subject building structures in such a way to accommodate future solar panels pursuant to applicable Building Code requirements.*

The building permit application for facilities that are able to accommodate future solar panels must demonstrate that sufficient power will be provided from clean energy sources for the operational base power use at the start of operations. Developers shall have the following options, or any combination of options, for procuring clean energy to meet operational base power needs for new building structures. Options may include 1) installing solar panels on the subject building or building site, and/or 2) procuring 100% clean energy from AVA Community Energy, and/or 3) participating in California's Community Solar Program, and/or 4) any other option that results in at least equal amounts of generation and/or procurement of clean energy as options (1) through (3), and that is first approved by the City and the San Joaquin Valley APCD.

Operational base power is defined as the amount of power required to supply loads for all ordinary operational uses of the site. Loads for all ordinary operational uses of the site include, as non-exhaustive examples, loads for minimal heating for fire sprinklers, primary office space lighting, HVAC, warehouse power, warehouse lighting, site lighting, minimum power for dock positions (including chargers for yard equipment and any plug-ins for transport refrigeration units), and the amount of light-duty electric vehicle supply equipment required by CalGreen code. Loads for all ordinary operational uses of the site exclude, as non-exhaustive examples, loads for specialized equipment, non-standard automation or material handling systems, and chargers for heavy-duty trucks.

Mitigation Measure 3.3-6: *To facilitate the installation of future electric vehicle charging stations for heavy-heavy duty (HHD) trucks, in connection with each individual development proposal, the subject building improvement plans shall identify an area (or areas) for future HHD truck charging stations and the subject developer shall install conduit from the power source to the identified area(s), as feasible.*

Mitigation Measure 3.3-7: *All forklifts, yard trucks, and other equipment used for on-site movement of trucks, trailers, and warehoused goods, as well as landscaping maintenance equipment used on the site, shall be electrically powered or zero-emission, unless new technology is determined to be commercially unavailable or infeasible to utilize.*

Mitigation Measure 3.3-8: *Truck Idling Restrictions: Owners, operators or tenants shall be required to make their best effort to restrict truck idling onsite to a maximum of three minutes, subject to exceptions defined by California Air Resources Board in the document: "Commercial Vehicle Idling Requirements," July 2016. Idling restrictions shall be enforced by highly-visible posting at the site entry, posting at other on-site locations frequented by truck drivers, conspicuous inclusion in employee training and guidance material and owner, operator or tenant direct action as required.*

Mitigation Measure 3.3-9: *Provide EV charging stations for automobiles per the CalGreen building code, and provide conduit to a future designated area for Heavy Duty Truck Charging Facility.*

Mitigation Measure 3.3-10: *Project Operations, Food Service: Owners, operators or tenants shall establish locations for food or catering truck service and cooperate with food service providers to provide consistent food service to operations and their employees.*

Mitigation Measure 3.3-11: *Project Operations, Employee Trip Reduction: Owners, operators or tenants shall provide employees transit route and schedule information on systems serving the project area and coordinate ridesharing amongst employees.*

Mitigation Measure 3.3-12: *Yard Sweeping: Owners, operators or tenants shall provide periodic (e.g. twice daily, as feasible) yard and parking area sweeping to minimize dust generation.*

Mitigation Measure 3.3-13: *Diesel Generators: Owners, operators or tenants shall prohibit the use of diesel generators, except in emergency situations, in which case such generators shall have Best Available Control Technology (BACT) that meets CARB's Tier 4 emission standards.*

Mitigation Measure 3.3-14: *Truck Emission Control: Owners, operators or tenants shall ensure that trucks or truck fleets domiciled at the project site be model year 2014 or later and maintained consistent with current CARB emission control regulations.*

Mitigation Measure 3.3-15: *Tenants/Operators shall enroll in the United States Environmental Protection Agency's SmartWay Program, as feasible. Proof of enrollment shall be given to the Community Development Department prior to issuance of a Certificate of Occupancy of a Building Permit for the facility.*

Mitigation Measure 3.3-16: *Designated Smoking Areas: Owners, operators or tenants shall ensure that any outdoor areas allowing smoking are at least 25 feet from the nearest property line.*

Mitigation Measure 3.3-17: *Qualifying facilities shall be constructed in compliance with the most current edition of all adopted City building codes, including the adopted Green Building Standards Code. Prior to the issuance of building permits, the applicant/developer of the qualifying facility(ies) shall demonstrate (e.g., provide building plans) that the proposed buildings are designed and will be built consistent with those codes.*

Mitigation Measure 3.3-18: *All tenant lease agreements for the project site shall include a provision requiring the tenant/lessee to comply with all applicable requirements of the MMRP, a copy of which shall be attached to each tenant/lease agreement.*

Impact 3.3-2: Proposed Project construction activities would result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment, or conflict or obstruct implementation of the District's air quality plan. (Significant and Unavoidable)

CONSTRUCTION EMISSIONS

Emissions from construction activities represent temporary impacts that are typically short in duration, depending on the size, phasing, and type of project. Air quality impacts can nevertheless be acute during construction periods, resulting in significant localized impacts to air quality. Construction-related activities would result in Project-generated emissions from site preparation, grading, paving, building construction, and architectural coatings. CalEEMod™ (v.2022.1) was used to estimate construction emissions for the proposed Project.

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Project-generated emissions from construction activities include emissions from both on-road (i.e. worker, vendor, and hauler) vehicles and off-road (i.e. construction equipment) vehicles. Both on-road and off-road vehicles were estimated by the CalEEMod model, based on the Project's characteristics, including Project size and type. Table 3.3-10, below, provides the assumptions associated with on-road construction vehicles. Further detail, including for default off-road construction parameters used, is provided in the CalEEMod results within Appendix B.

TABLE 3.3-10: ON-ROAD CONSTRUCTION VEHICLES MODELED

<i>CAL EEMOD PHASE</i>	<i>TRIP TYPE</i>	<i>ONE-WAY TRIPS PER DAY</i>	<i>MILES PER TRIP</i>
Site Preparation	Worker	18	11.9
Grading	Worker	20	11.9
Building Construction	Worker	2,603	11.9
Building Construction	Vendor	1,1021	9.1
Paving	Worker	15	11.9
Architectural Coating	Worker	521	11.9

SOURCE: CAL EEMOD (REFER TO APPENDIX B)

Table 3.3-11, below, provides the maximum construction criteria pollutant emissions associated with implementation of the proposed Project.

TABLE 3.3-11: CONSTRUCTION PROJECT GENERATED EMISSIONS (TONS PER YEAR) - MITIGATED

<i>POLLUTANT</i>	<i>CO</i>	<i>NOX</i>	<i>ROG</i>	<i>SOX</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>
THRESHOLD	100	10	10	27	15	15
2024	1.84	1.97	0.20	< 0.005	0.51	0.30
2025	3.92	4.00	0.43	0.01	0.92	0.51
2026	3.70	3.56	0.41	0.01	0.64	0.33
2027	5.17	3.76	0.52	0.01	1.05	0.41
2028	14.7	6.43	1.28	0.03	3.90	1.03
2029	15.1	6.82	1.28	0.03	3.93	1.05
2030	13.8	6.15	1.17	0.03	3.91	1.03
2031	12.3	5.49	1.07	0.03	3.88	0.99
2032	11.9	5.25	1.02	0.03	3.86	0.99
2033	11.4	5.08	0.98	0.03	3.85	0.98
2034	10.9	4.84	0.93	0.03	3.84	0.98
2035	10.6	4.72	0.92	0.03	3.84	0.98
2036	10.2	4.60	0.92	0.03	3.85	0.98
2037	10.1	4.52	1.80	0.03	3.91	0.98
2038	11.3	4.59	8.00	0.03	4.39	1.10
2039	1.46	0.17	6.98	< 0.005	0.55	0.13
MAXIMUM ANNUAL EMISSIONS	15.1	6.82	8.00	<0.03	4.39	1.10
EXCEEDS THRESHOLD?	N	N	N	N	N	N

SOURCES: CAL EEMOD (V.2022.1)

If the proposed Project's emissions will exceed the SJVAPCD's threshold of significance for construction-generated emissions, the proposed Project will have a significant impact on air quality and all feasible mitigation are required to be implemented to reduce emissions. As shown in Table 3.3-11, none of the Project annual construction emissions would exceed the SJVAPCD thresholds of significance. The SJVAPCD requires construction related mitigation in accordance with their rules and regulations.

CONCLUSION

The proposed Project would comply with pre-existing requisite federal, State, SJVAPCD, and other local regulations and requirements, as well as implement the mitigation measures required by the SJVAPCD for construction-related PM₁₀ emissions, including those requirements required by mitigation measures presented in this EIR. Furthermore, the proposed Project would implement mitigation measures that require the Project to demonstrate that individual projects that are part of the proposed Project, as well as the Project as a whole, do not exceed the applicable SJVAPCD criteria pollutant thresholds for construction activities, or, if the SJVAPCD criteria pollutant thresholds for an individual project is exceeded, the project applicant must develop a reasonably feasible offsite mitigation strategy or pay the SJVAPCD to fund offsite mitigation. However, even with implementation of all feasible mitigation, it may not be feasible for all individual projects within the Project site may to reduce construction-related emissions at full Project buildout below the applicable thresholds (dependent on factors such as the exact nature of the construction schedule). Therefore, even with implementation of the mitigation measures presented in this EIR, the Project's criteria pollutant emissions during Project construction would be considered to have a **significant and unavoidable** impact.

MITIGATION MEASURES

Mitigation Measure 3.3-19: *SJVAPCD Regulation VIII Compliance: Construction plans and specifications shall include a Dust Control Plan incorporating the applicable requirements of Regulation VIII, which shall be submitted to the SJVAPCD for review and approval prior to beginning construction in accordance with the requirements of Regulation VIII.*

Mitigation Measure 3.3-20: *Construction Worker Trip Reduction: Project construction plans and specifications will require contractor to provide transit and ridesharing information for construction workers.*

Mitigation Measure 3.3-21: *Construction Meal Destinations: Project construction plans and specifications will require the contractor to establish one or more locations for food or catering truck service to construction workers and to cooperate with food service providers to provide consistent food service.*

Mitigation Measure 3.3-22: *To reduce impacts from construction-related diesel exhaust emissions, the Project shall utilize the cleanest available off-road construction equipment, including the latest tier equipment (recommended by SJVAPCD).*

Impact 3.3-3: The proposed Project has the potential to expose sensitive receptors to substantial pollutant concentrations. (Less than Significant with Mitigation)

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air. However, their high toxicity or health risk may pose a threat to public health even at very low concentrations. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined and for which the state and federal governments have set ambient air quality standards.

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the U.S. EPA regulate 188 air toxics, also known as hazardous air pollutants. The U.S. EPA has assessed this expansive list in their latest rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007) and identified a group of 93 compounds emitted from mobile sources. In addition, the U.S. EPA identified seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 1999 National Air Toxics Assessment. These are acrolein, benzene, 1,3-butadiene, diesel particulate matter plus diesel exhaust organic gases (diesel PM), formaldehyde, naphthalene, and polycyclic organic matter.

The 2007 U.S. EPA rule requires controls that will dramatically decrease Mobile Source Air Toxics (MSAT) emissions through cleaner fuels and cleaner engines. According to an FHWA analysis using EPA's MOBILE6.2 model, even if vehicle activity (VMT) increases by 145 percent, a combined reduction of 72 percent in the total annual emission rate for the priority MSAT is projected from 1999 to 2050. California maintains stricter standards for clean fuels and emissions compared to the national standards, therefore it is expected that MSAT trends in California will decrease consistent with or more than the U.S. EPA's national projections.

The California Air Resources Board (CARB) published the *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB, 2005) to provide information to local planners and decision-makers about land use compatibility issues associated with emissions from industrial, commercial, and mobile sources of air pollution. The CARB Handbook indicates that mobile sources continue to be the largest overall contributors to the State's air pollution problems, representing the greatest air pollution health risk to most Californians. The most serious pollutants on a statewide basis include diesel exhaust particulate matter (diesel PM), benzene, and 1,3-butadiene, all of which are emitted by motor vehicles. These mobile source air toxics are largely associated with freeways and high traffic roads. Non-mobile source air toxics are largely associated with industrial and commercial uses. Table 3.3-12 provides the California Air Resources Board minimum separation recommendations on siting sensitive land uses.

There are no traditional sensitive receptors such as residences, hospitals, or schools that are proposed as part of the proposed Project. However, the Project is in a community that is identified

as having a CalEnviroScreen 4.0 score in the 99% percentile. CalEnviroScreen is a mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects. Such a score identifies the general area in and around the Project site is generating a high pollution burden on nearby receptors.

TABLE 3.3-12: CARB MINIMUM SEPARATION RECOMMENDATIONS ON SITING SENSITIVE LAND USES

<i>SOURCE CATEGORY</i>	<i>ADVISORY RECOMMENDATIONS</i>
Freeways and High-Traffic Roads	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.¹
Distribution Centers	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). • Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. • Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	<ul style="list-style-type: none"> • Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the CARB on the status of pending analyses of health risks.
Refineries	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloro-ethylene	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. • Do not site new sensitive land uses in the same building with perc dry cleaning operations.
Gasoline Dispensing Facilities	<ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

SOURCES: AIR QUALITY AND LAND USE HANDBOOK: A COMMUNITY HEALTH PERSPECTIVE" (CARB 2005)

Heavy-duty trucks are a common source of Diesel Particulate Matter (DPM), in contrast to passenger vehicles (such as light-duty cars and trucks). The inhalation of DPM generates cancer and non-cancer health risks, especially where concentrations are chronically elevated for long periods of time, and for younger sensitive receptors. Additionally, TRUs are expected to be in use on approximately 15% of the heavy-duty trucks that travel to and from the Project site, which would represent approximately 833 of the total of 5,552 one-way heavy-duty truck trips per day that would be associated with the proposed Project.

It should be noted that the mobile vehicles generated by the Project during operation would generate UFPs through vehicle emissions, braking, and tire wear. Similar to PM in general (though generating even higher risk per unit than larger particle sizes) UFPs are notable for their potential to

generate chronic risks associated with cardiovascular disease, potential long-term loss of lung function, and cancer. According to a recent study prepared for the European Geosciences Union, UFPs vary widely as a proportion of PM overall, depending on location; specifically, the $PM_{0.1}$ to $PM_{2.5}$ ratio analyzed in approximately 39 cities in the United States varied from approximately 1% to 16%.²³ These factors vary so widely because the sources of $PM_{0.1}$ vary substantially from city to city. For example, cities that are located close to substantial sources of natural gas combustion have higher $PM_{0.1}$ to $PM_{2.5}$ ratios, since almost all the PM emitted by natural gas combustion is in the $PM_{0.1}$ size fraction, whereas this is only true for less than half of the PM emitted by gasoline and diesel fuel combustion. Taken together, these facts support the potential importance of natural gas combustion for ambient $PM_{0.1}$ concentrations. The city analyzed in the study with the greatest similarity to the City of Stockton (i.e. where the Project is located) was the City of Bakersfield, given its similarity in location within the Central Valley region. The ratio of $PM_{0.1}$ to $PM_{2.5}$ for Bakersfield was found to be approximately 11%. Absent data specific to the City of Stockton, this data is presumed to be the best available data and reasonable for use in estimating $PM_{0.1}$ levels in this case. Therefore, given the Project's estimated 28.3 tons per year of $PM_{2.5}$ (see Table 3.3-8 and Table 3.3-9), the total $PM_{0.1}$ generated by the Project is estimated to be approximately 3.1 tons per year (6,226 lbs/year). This is equivalent to 17.1 lbs/day of $PM_{0.1}$. There is not specifically a quantitative threshold of significance established by the SJVAPCD for $PM_{0.1}$.

The SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) (SJVAPCD, 2015) includes procedures for evaluating hazardous air pollutants. The GAMAQI states that projects where significant numbers of diesel-powered vehicles will be operating, such as truck stops, transit centers, and warehousing, may create risks from toxic diesel particulate emissions. These facilities and vehicles are not subject to District permit and so may need mitigation measures adopted by the Lead Agency to reduce this impact. Measures such as limiting idling, electrifying truck stops to power truck auxiliary equipment, use of diesel particulate filters, and use of alternative fuel heavy-duty trucks have been required by some jurisdictions.

The GAMAQI states that Lead Agencies should consider both of the following situations when evaluating hazardous air pollutants:

- 1) a new or modified source of hazardous air pollutants is proposed for a location near an existing residential area or other sensitive receptor, and
- 2) a residential development or other sensitive receptor is proposed for a site near an existing source of hazardous air pollutants.

For the first scenario, the GAMAQI indicates that the Lead Agency should consult with the SJVAPCD regarding anticipated hazardous air pollutant emissions, potential health impacts, and control measures. The GAMAQI states that, "preparation of the environmental document should be closely

²³ Venecek, M. A., Yu, X., and Kleeman, M. J.: Predicted ultrafine particulate matter source contribution across the continental United States during summertime air pollution events, *Atmos. Chem. Phys.*, 19, 9399–9412, <https://doi.org/10.5194/acp-19-9399-2019>, 2019.

coordinated with the SJVAPCD review of the facility's permit application when timing allows." The SJVAPCD's policies and regulations for implementing AB 2588 designate facilities as significant when they have a carcinogenic risk in excess of 20 in one million or a non-cancer risk Hazard Index of greater than one (if prescribed so by California's Office of Environmental Health Hazard Assessment). The second scenario is not applicable to the proposed Project because the proposed Project does not include the construction of a residential development or other sensitive receptor. Nevertheless, a health impact analysis has been prepared for the proposed Project to analyze the Project changes to truck routes during Project operation, as well as from off-road construction equipment during Project construction. The source of TACs for this type of Project can be attributed to diesel exhaust from the trucks servicing the Project (including from truck refrigeration units, or TRUs), as well as diesel exhaust from off-road construction equipment during Project construction.

A health risk analysis was conducted utilizing Lakes Environmental Software AERMOD and the ARB's Hotspots Analysis Reporting Program Version 2 (HARP 2) Air Dispersion, Modelling, and Risk Tool (ADMRT). Truck idling, truck on-site mobile, and TRU diesel particulate matter (DPM) emissions were calculated. As provided by Fehr & Peers, a total of 5,552 heavy-duty truck trips per day were modeled. The residential (70-year exposure) cancer, workplace (40-year exposure) cancer, chronic (non-cancer), and acute (non-cancer) risks were assessed and compared to SJVAPCD thresholds. See Appendix B.5 for full model inputs. Table 3.3-13 summarizes the results of the analysis.

TABLE 3.3-13: SUMMARY OF MAXIMUM HEALTH RISKS

<i>RISK METRIC</i>	<i>MAXIMUM RISK</i>	<i>SIGNIFICANCE THRESHOLD</i>	<i>IS THRESHOLD EXCEEDED?</i>
<i>OPERATIONAL</i>			
Residential Cancer Risk (70-year exposure)	15.0 per million	20 per million	No
Workplace Cancer Risk (40-year exposure)	6.10 per million	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥ 1	No
Acute (non-cancer)	<0.01	Hazard Index ≥ 1	No
<i>CONSTRUCTION</i>			
Residential Cancer Risk (15-year exposure)	1.24 per million	20 per million	No
Workplace Cancer Risk (15-year exposure)	0.28 per million	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥ 1	No
Acute (non-cancer) ¹	0	Hazard Index ≥ 1	No
<i>TOTAL</i>			
Residential Cancer Risk (Aggregate)	16.24 per million	20 per million	No
Workplace Cancer Risk (Aggregate)	6.38 per million	20 per million	No

3.3 AIR QUALITY

Chronic (non-cancer)	<0.01	Hazard Index ≥ 1	No
Acute (non-cancer) ¹	0	Hazard Index ≥ 1	No

SOURCES: AERMOD (LAKES ENVIRONMENTAL SOFTWARE, 2024); AND HARP-2 AIR DISPERSION AND RISK TOOL.

NOTE: ¹THERE ARE NO ACUTE RISKS ASSOCIATED WITH DPM.

As shown in Table 3.3-13 above, the proposed Project, in and of itself, would not result in a significant increased exposure of receptors to localized concentrations of TACs during Project operation and construction.

CONCLUSION

Risk of residential cancer risk, workplace cancer risk, as well as chronic and acute non-cancer risks are below the applicable SJVAPCD thresholds. Nevertheless, in the case that individual phases of development would be developed in such a way as to differ from the assumptions made in the proposed Project HRA, individual phase-specific HRAs would be required, utilizing individual phase-specific assumptions and factors, as described in Mitigation Measure 3.3-23, below. Therefore, with implementation of Mitigation Measure 3.3-23, implementation of the proposed Project would cause a **less than significant** impact relative to this topic.

MITIGATION MEASURE(S)

Mitigation Measure 3.3-23: *Prior to the approval of individual phases of development (i.e. final maps, improvement plans, site plan review, etc.), each project applicant shall ensure that individual project characteristics are consistent with the assumptions made within the final proposed Project Health Risk Assessment (HRA). If any of the characteristics of individual phases of Project development are more intensive with regards to the risks associated with the toxic air contaminants assumed within the final proposed Project HRA, individual phase-specific HRAs shall be developed for each individual phase of development where such an inconsistency occurs. The intent is that each phase of development would demonstrate that the individual project does not exceed the applicable SJVAPCD health risk thresholds. If any of the SJVAPCD health risk thresholds for an individual project is exceeded, the project applicant shall develop additional mitigation to ensure that the individual project does not exceed the applicable SJVAPCD health risk thresholds.*

Impact 3.3-4: The proposed Project would not cause exposure to other emissions (such as those leading to odors) adversely affecting a substantial number of people (Less than Significant)

The following text addresses odors. Other emissions (including criteria pollutants and TACs) are addressed in Impacts 3.3-1 through 3.3-3.

While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the SJVAPCD. The general nuisance rule (Health and Safety Code §41700) is the basis for the threshold.

Examples of facilities that are known producers of odors include: Wastewater Treatment Facilities, Chemical Manufacturing, Sanitary Landfill, Fiberglass Manufacturing, Transfer Station, Painting/Coating Operations (e.g. auto body shops), Composting Facility, Food Processing Facility, Petroleum Refinery, Feed Lot/Dairy, Asphalt Batch Plant, and Rendering Plant.

If a project proposes to locate receptors and known odor sources in proximity to each other, further analysis may be warranted. However, if a project would not locate receptors and known odor sources in proximity to each other, then further analysis is not warranted. The proposed Project does not include new industrial uses that are not already present in the vicinity of the Project site. Air district Rule 402 prohibits any mobile or stationary source generating an objectionable odor, except for odors emanating from certain agricultural operations. The California Health and Safety Code §41700 and Air District Rule 402 prohibit emissions of air contaminants from any source that cause nuisance or annoyance to a considerable number of people or that present a threat to public health or cause property damage. Compliance with these rules would preclude land uses proposed under the proposed Project from emitting objectionable odors.

CONCLUSION

The proposed Project does not propose sensitive receptors that would be exposed to odors in the vicinity; nor does it propose uses that would create new odors that would expose substantial numbers of people. Therefore, operation of the proposed Project would not result in significant objectionable odors. Impacts associated with exposure to odors would be ***less than significant***.

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This section describes the regulatory setting, regional biological resources, and impacts that are likely to result from Project implementation. The analysis contained in this section is intended to be at a Project-level, and covers impacts associated with the conversion of the entire site to an urban use. This section is based in part on the following: Envision Stockton 2040 General Plan (2018), Envision Stockton 2040 General Plan Update and Utility Master Plan Supplements Draft EIR (City of Stockton, 2018), City of Stockton Municipal Code (2020), as well as site specific surveys and analysis.

One comment was received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the Sierra Club, Delta-Sierra Group (October 27, 2020). The portion of the comment letter related to this topic is addressed within this section. Full comments received are included in Appendix A.

3.4.1 ENVIRONMENTAL SETTING

GEOMORPHIC PROVINCES/BIOREGION

The City of Stockton is located in the western portion of the Great Valley Geomorphic Province of California. The Great Valley Province is a broad structural trough bounded by the tilted block of the Sierra Nevada on the east and the complexly folded and faulted Coast Ranges on the west. The San Joaquin River is located just south and west of the City. This major river drains the Great Valley Province into the San Joaquin Delta to the north, ultimately discharging into the San Francisco Bay to the northwest.

The City of Stockton is located within the San Joaquin Valley Bioregion, which is comprised of Kings County, most of Fresno, Kern, Merced, and Stanislaus counties, and portions of Madera, San Luis Obispo, and Tulare counties. The San Joaquin Valley Bioregion is the third most populous of the ten bioregions in the State, with an estimated 2 million people. The largest cities are Fresno, Bakersfield, Modesto, and Stockton. Interstate 5 and State Route 99 are the major north-south roads that run the entire length of the bioregion.

The bioregion is bordered on the west by the coastal mountain ranges. Its eastern boundary joins the southern two-thirds of the Sierra bioregion, which features Yosemite, Kings Canyon, and Sequoia National Parks. At its northern end, the San Joaquin Valley bioregion borders the southern end of the Sacramento Valley bioregion. To the west, south, and east, the bioregion extends to the edges of the valley floor.

Habitat in the bioregion includes vernal pools, valley sink scrub and saltbush, freshwater marsh, grasslands, arid plains, orchards, and oak savannah. Historically, millions of acres of wetlands flourished in the bioregion, but stream diversions for irrigation dried all but about five percent. Remnants of the wetland habitats are protected in this bioregion in publicly owned parks, reserves, and wildlife areas. The bioregion is considered the State's top agricultural producing region with the abundance of fertile soil.

LOCAL SETTING

Location

The Project site is comprised of 422.22 acres located in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport. The Project site is located west of the 99 Frontage Road and State Route (SR) 99 and east of Airport Way. The Union Pacific Railroad (UPRR) extends south from Airport Way bisecting the western portion of the site. French Camp Slough extends southeast from Airport Way across the southwestern portion of the site. It continues east under the UPRR and then south across the southwestern portion of the site, before continuing south off-site. The Project site is comprised of active agricultural fields. The majority of the fields produce watermelons, with a walnut orchard located in the eastern portion of the site.

The Project also includes off-site sewer improvements located along and adjacent to existing Project area roadways. The off-site sewer improvements would be located along the western site frontage on Airport Way, head north along Airport Way, and terminate in Airport Way and Industrial Drive to the north. The off-site sewer improvements would be located within the Airport Way right-of-way, and adjacent to the roadway in certain limited areas (such as northeast of the Airport Way and Arch Airport Road intersection, and northeast of the Airport Way and Boeing Way intersection).

Topography

The Project site is relatively flat with a natural gentle slope increased from north to south. Topographic features within the Project site include level fields, farm roads, French Camp Slough, and irrigation ditches. Elevation ranges from approximately 14 to 40 feet above mean sea level.

Climate

The City of Stockton is located in the northern portion of the San Joaquin Valley, which has a Mediterranean climate that is subject to cool, wet winters (often blanketed with fog) and hot, dry summers. The average annual precipitation is approximately 13.81 inches. Precipitation occurs as rain most of which falls between the months of November through April, peaking in January at 2.85 inches. The average temperatures range from December lows of 37.5 F to July highs of 94.3 F.

Vegetation

Vegetation on the Project site consists of agricultural, ruderal, and landscaping. Because of the active agricultural use, there is very limited natural vegetation on the Project site with the exception of the perimeter of the agricultural fields. Common plant species observed in these areas include: wild oat (*Avena barbata*), rip-gut brome (*Bromus diandrus*), softchess (*Bromus hordeaceus*) alfalfa (*Medicago sativa*), Russian thistle (*Salsola tragus*), Italian thistle (*Carduus pycnocephalus*), rough pigweed (*Amaranthus retroflexus*), sunflower (*Helianthus annuus*), tarragon (*Artemisia dracunculus*), coyote brush (*Baccharis pilularis*), prickly lettuce (*Lactuca serriola*), milk thistle (*Silybum marianum*), sow thistle (*Sonchus asper*), telegraph weed (*Heterotheca grandiflora*), barley (*Hordeum* sp.), mustard (*Brassica niger*), and heliotrope (*Heliotropium curassavicum*).

Wildlife

Agricultural and ruderal vegetation found on the Project site provides habitat for both common and a few special-status wildlife populations. For example, some commonly observed wildlife species in the region include: California ground squirrel (*Spermophilus beecheyi*), California vole (*Microtus californicus*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus*), American kestrel (*Falco sparverius*), white-tailed kite (*Elanus leucurus*), American killdeer (*Charadrius vociferus*), gopher snake (*Pituophis melanoleucus*), garter snake (*Thamnophis species*), and western fence lizard (*Sceloporus occidentalis*), as well as many native insect species. There are also several bat species in the region. Bats often feed on insects as they fly over agricultural and natural areas.

Locally common and abundant wildlife species are important components of the ecosystem. Due to habitat loss, many of these species must continually adapt to using agricultural, ruderal, and ornamental vegetation for cover, foraging, dispersal, and nesting.

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM

The California Wildlife Habitat Relationships (CWHR) habitat classification scheme has been developed to support the CWHR System, a wildlife information system and predictive model for California's regularly-occurring birds, mammals, reptiles and amphibians. When first published in 1988, the classification scheme had 53 habitats. At present, there are 59 wildlife habitats in the CWHR System: 27 tree, 12 shrub, 6 herbaceous, 4 aquatic, 8 agricultural, 1 developed, and 1 non-vegetated.

Figure 3.4-1 shows the CWHR designations in the Project site. Table 3.4-1 summarizes the designations in the Project site.

TABLE 3.4-1: CWHR LAND COVER TYPES

LAND COVER TYPE	ACRES WITHIN THE PROJECT SITE
Annual Grassland	8.2
Orchard – Deciduous	32.8
Cropland	25.8
Dryland Grain Crops	67.5
Irrigated Crops – Grain/Row/Field/Hayfield	280.6
Vineyard	0.2
Fresh Emergent Wetland	3.1
Valley Foothill Riparian	0.7
Riverine	2.9
Urban	0.4

SOURCES: CALFIRE FVEG15_1, 2015; FRESNO COUNTY; CITY OF FRESNO. MAP DATE: SEPTEMBER 23, 2020.

Below is a brief description of these CWHR habitats.

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DEVELOPED COVER TYPES

Orchard – Deciduous are typically open single species tree dominated habitats. Within the Project Site, there are 32.8 acres of Orchard – Deciduous habitat. Depending on the tree type and pruning methods they are usually low, bushy trees with an open understory to facilitate harvest. Trees range in height at maturity for many species from 15 to 30 feet, but may be 10 feet or less depending on the species. Crowns usually touch, and are usually in a linear pattern. Spacing between trees is uniform depending on desired spread of mature trees. The understory is usually composed of low-growing grasses, legumes, and other herbaceous plants, but may be managed to prevent understory growth totally or partially, such as along tree rows. Deciduous orchards can be found on flat alluvial soils in the valley floors, in rolling foothill areas, or on relatively steep slopes. Although some deciduous orchards are non-irrigated, most are irrigated. Some flat soils are flood irrigated, but many deciduous orchards are sprinkler irrigated. Large numbers of orchards are irrigated by drip or trickle irrigation systems. Most deciduous orchards are in valley or foothill areas, with a few, such as, apples and pears, up to 3,000 feet elevation.

Croplands are located on flat to gently rolling terrain. Within the Project site, there are 25.8 acres of Cropland habitat. When flat terrain is put into crop production, it usually is leveled to facilitate irrigation. Rolling terrain is either dry farmed or irrigated by sprinklers. Soils often dictate the crops grown. Corn requires better soils than barley, which can grow on poor quality soils, and rice does well on clay soils not suitable for other crops. Leaching can remove contaminants in areas of high salt or alkali levels, making the soils highly productive. This has occurred extensively in the San Joaquin and Imperial Valleys. Climate also influences the type of crops grown. Only hardy crops such as potatoes, barley, and wheat do well in the short growing season in Klamath Basin; whereas, in the Imperial Valley, a variety of crops grow over an eleven month, frost-free growing season.

Irrigated Crops – Grain/Row/Field/Hayfield include a variety of sizes, shapes and growing patterns. Within the Project site, there are 280.6 acres of Irrigated Crops – Grain/Row/Field/Hayfield habitat. Field corn can reach ten feet tall while dry beans are only several inches tall. Most irrigated grain and seed crops are grown in rows. Some may form 100 percent canopy while others may have significant bare areas between rows. All seed and grain crops are annuals. They are usually planted in spring and harvested in summer or fall. However, they may be planted in rotation with other irrigated crops and sometimes winter wheat or barley may be planted after harvest of a previous crop in the fall, dry farmed (during the wet winter and early spring months) or they may be irrigated, and then harvested in the late spring.

Vineyards are composed of single species planted in rows, usually supported on wood and wire trellises. Most vineyards are in valley or foothill areas. Within the Project site, there are 0.2 acres of Vineyard habitat. Vines are normally intertwined in the rows but open between rows. Rows under the vines are usually sprayed with herbicides to prevent growth of herbaceous plants. Between rows of vines, grasses and other herbaceous plants may be planted or allowed to grow as a cover crop to control erosion. Vineyards can be found on flat alluvial soils in the valley floors, in rolling foothill areas, or on relatively steep slopes. All are irrigated. Most vineyards are sprinkler irrigated. Large numbers of vineyards are irrigated by drip or trickle irrigation systems. .

Dryland Grain Crops are composed of vegetation in the dryland (nonirrigated) grain and seed crops habitat includes seed producing grasses, primarily barley, cereal rye, oats, and wheat. Within the Project site, there are 67.5 acres of Dryland Grain Crop habitat. These seed and grain crops are annuals. They are usually planted by drilling in rows which produce solid stands, forming 100 percent canopy at maturity in good stands. They are normally planted in fall and harvested in spring. However, they may be planted in rotation with other irrigated crops and winter wheat or barley may be planted after harvest of a previous crop in the fall, dry farmed (during the wet winter and early spring months), and then harvested in late spring.

Urban habitats are not limited to any particular physical setting. Within the Project site, there are 0.4 acres of Urban habitat. Three urban categories relevant to wildlife are distinguished: downtown, urban residential, and suburbia. The heavily-developed downtown is usually at the center, followed by concentric zones of urban residential and suburbs. There is a progression outward of decreasing development and increasing vegetative cover. Species richness and diversity is extremely low in the inner cover. The structure of urban vegetation varies, with five types of vegetative structure defined: tree grove, street strip, shade tree/lawn, lawn, and shrub cover. A distinguishing feature of the urban wildlife habitat is the mixture of native and exotic species.

HERBACEOUS COVER TYPES

Annual Grassland habitat occurs mostly on flat plains to gently rolling foothills. Within the Project site, there are 8.2 acres of Annual Grassland habitat. Climatic conditions are typically Mediterranean, with cool, wet winters and dry, hot summers. The length of the frost-free season averages 250 to 300 days. Annual precipitation is highest in northern California.

Fresh Emergent Wetland habitats occur on virtually all exposures and slopes, provided a basin or depression is saturated or at least periodically flooded. Within the Project site, there are 3.1 acres of Fresh Emergent Wetland habitat. However, they are most common on level to gently rolling topography. They are found in various landscape depressions or at the edge of rivers or lakes. Fresh emergent wetland vegetation zones characteristically occur as a series of concentric rings which follow basin contours and reflect the relative depth and duration of flooding. If the bottom of the wetland is very uneven, vegetation zones may be present in a patchy configuration rather than the classic concentric ring pattern. Soils are predominantly silt and clay, although coarser sediments and organic material may be intermixed). In some areas organic soils (peat) may constitute the primary growth medium. Climatic conditions are highly variable and range from the extreme summer heat of Imperial County to the Great Basin climate of Modoc County where winter temperatures often are well below freezing.

TREE COVER TYPE

Valley Foothill Riparian habitat is found in valleys bordered by sloping alluvial fans, slightly dissected terraces, lower foothills, and coastal plains. Within the Project site, there are 0.7 acres of Valley Foothill Riparian habitat. They are generally associated with low velocity flows, flood plains, and gentle topography. Valleys provide deep alluvial soils and a high water table. The substrate is coarse, gravelly or rocky soils more or less permanently moist, but probably well aerated. Average

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precipitation ranges from six to 30 inches, with little or no snow. The growing season is 7 to 11 months. Frost and short periods of freezing occur in winter (200 to 350 frost-free days). Mean summer maximum temperatures are 75 to 102 F, mean winter minima are 29 to 44 F. These habitats are characterized by hot, dry summers, mild and wet winters. Coastal areas have a more moderate climate than the interior and receive some summer moisture from fog. Potential evaporation during the warmest months is often greater than precipitation. Low rainfall and streamflow result in water scarcity in many parts of the area. AQUATIC COVER TYPE

Riverine habitats can occur in association with many terrestrial habitats. Within the Project site, there are 2.9 acres of Riverine habitat. Riverine habitats are found adjacent to many rivers and streams. Riverine habitats are also found contiguous to lacustrine and fresh emergent wetland habitats. This habitat requires intermittent or continually running water generally originating at some elevated source, such as a spring or lake, and flows downward at a rate relative to slope or gradient and the volume of surface runoff or discharge. Velocity generally declines at progressively lower altitudes, and the volume of water increases until the enlarged stream finally becomes sluggish. Over this transition from a rapid, surging stream to a slow, sluggish river, water temperature and turbidity will tend to increase, dissolved oxygen will decrease, and the bottom will change from rocky to muddy.

SPECIAL-STATUS SPECIES

The following discussion is based on a background search of special-status species that are documented in the California Natural Diversity Database (CNDDB), the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants, and the U.S. Fish and Wildlife Service's (USFWS) records of listed endangered and threatened species from the IPAC database. The background search was regional in scope and focused on the documented occurrences within the 9-quadrangle (approximately 10 miles) region for the Project site. Table 3.4-2 provides a list of special-status plants and Table 3.4-3 provides a list of special-status animals. Figure 3.4-2 presents the documented occurrences within a one-mile radius of the Project site.

TABLE 3.4-2: SPECIAL-STATUS PLANT SPECIES WHICH MAY OCCUR IN PROJECT AREA

SPECIES	STATUS (FED./CA/ CNPS/SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT AND BLOOMING PERIOD	PRESENCE DETERMINATION
Alkali milk-vetch <i>Astragalus tener</i> <i>var. tener</i>	--/--/1B.2/Yes	Eastern San Francisco Bay region, the Delta, and western San Joaquin Valley south to the lower Salinas and San Benito valleys	Grassy alkaline flats and vernal moist meadows at elevations below 500 ft. March-June	Not Present. Not observed during field survey. No appropriate habitat.
Big tarplant <i>Blepharizonia</i> <i>plumosa</i>	--/--/1B.1/No	San Francisco Bay area with occurrences in Alameda, Contra Costa, San Joaquin, Stanislaus, and Solano Counties	Valley and foothill grassland; 30-505 m. July-Oct.	Not Present. Not observed during field survey. No appropriate habitat.
Delta button-celery <i>Eryngium</i> <i>racemosum</i>	--/E/1B.1/Yes	San Joaquin River delta floodplains and adjacent Sierra Nevada foothills: Calaveras, Merced, San Joaquin, and Stanislaus Counties	Riparian scrub, seasonally inundated depressions along floodplains on clay soils; below 75 m. June-August.	Not Present. Not observed during field survey. No appropriate habitat.
Delta tule pea <i>Lathyrus jepsonii</i> <i>var. jepsonii</i>	--/--/1B.2/Yes	Found mainly in the Sacramento-San Joaquin Delta and has been documented in Contra Costa, Sacramento, San Joaquin, Solano, Napa, and Alameda Counties	Marshes and swamps. In freshwater and brackish marshes. Often found with Typha, Aster lentus, Rosa californica, Juncus spp., Scirpus, etc. Usually on marsh and slough edges. 0-5 m. May-Jul(Aug-Sep)	Not Present. Not observed during field survey. No appropriate habitat.
Greene's tuctoria <i>Tuctoria greenei</i>	E/R/1B.1/ Yes	Butte, Fresno, Glenn, Madera, Merced, Modoc, Shasta, San Joaquin, Stanislaus, Tehama, and Tulare Counties	Vernal pools. Vernal pools in open grasslands. 25-1325 m. May-Jul(Sep)	Not Present. Not observed during field survey. No appropriate habitat.
Heartscale <i>Atriplex</i> <i>cordulata</i> <i>var.</i> <i>cordulata</i>	--/--/1B.2/Yes	Central Valley and interior valleys of the Coast Range from Butte to Kern counties.	Saline or alkaline sandy soils in grassland or saltbush scrub. March-October	Not Present. Not observed during field survey. No appropriate habitat.
Mason's lilaeopsis <i>Lilaeopsis</i> <i>masonii</i>	--/R/1B.1/Yes	Sacramento-San Joaquin River Delta and nearby shores of San Francisco Bay	Marshes and swamps, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. In brackish or freshwater. 0-10 m. Apr-Nov.	Not Present. Not observed during field survey. No appropriate habitat.

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<i>SPECIES</i>	<i>STATUS (FED./CA/ CNPS/SJMSCP)</i>	<i>GEOGRAPHIC DISTRIBUTION</i>	<i>HABITAT AND BLOOMING PERIOD</i>	<i>PRESENCE DETERMINATION</i>
Palmate-bracted bird's-beak <i>Chloropyron palmatum</i>	E/E/1B.1/Yes	Scattered locations in Fresno and Madera counties in the San Joaquin Valley, San Joaquin, Yolo, and Colusa counties in the Sacramento Valley, and the Livermore Valley area of Alameda County	Saline-alkaline soils in seasonally-flooded lowland plains and basins at elevations of less than 500 feet. May-October	Not Present. Not observed during field survey. No appropriate habitat.
Recurved larkspur <i>Delphinium recurvatum</i>	--/--/1B.2/Yes	Central Valley from Colusa to Kern Counties	Alkaline soils in saltbush scrub, cismontane woodland, valley and foothill grassland; 3-750 m. March-May.	Not Present. Not observed during field survey. No appropriate habitat.
Saline clover <i>Trifolium hydrophilum</i>	--/--/1B.2/No	Eastern and Northern San Francisco Bay region, the Delta, western San Joaquin Valley, southern San Jose	Marshes and swamps, Valley and foothill grassland (mesic, alkaline), and Vernal pools. April-June	Not Present. Not observed during field survey. No appropriate habitat.
San Joaquin spearscale <i>Extriplex joaquinana</i>	--/--/1B.2/Yes	Delta region, central valley and central coast	Alkaline. Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland. April-October	Not Present. Not observed during field survey. No appropriate habitat.
Sanford's arrowhead <i>Sagittaria sanfordii</i>	--/--/1B.2/Yes	Butte, Del Norte, El Dorado, Fresno, Merced, Mariposa, Marin, Napa, Orange, Placer, Sacramento, San Bernardino, Shasta, San Joaquin, Solano, Tehama, Tulare, Ventura, and Yuba Counties	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0-605 m. May-Oct(Nov)	Not Present. Not observed during field survey. No appropriate habitat.
Slough thistle <i>Cirsium crassicaule</i>	--/--/1B.1/Yes	San Joaquin Valley: Kings, Kern, and San Joaquin Counties	Freshwater sloughs and marshes; 3-100 m. May-August.	Not Present. Not observed during field survey. No appropriate habitat.
Suisun Marsh aster <i>Symphyotrichum lentum</i>	--/--/1B.2/Yes	Contra Costa, Napa, Sacramento, San Joaquin, Solano, and Yolo Counties	Marshes and swamps (brackish and freshwater). Most often seen along sloughs with Phragmites, Scirpus, blackberry, Typha, etc. 0-15 m. (Apr)May-Nov	Not Present. Not observed during field survey. No appropriate habitat.

SPECIES	STATUS (FED./CA/ CNPS/SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT AND BLOOMING PERIOD	PRESENCE DETERMINATION
Watershield <i>Brasenia schreberi</i>	--/--/2B.3/No	Butte, Calaveras, El Dorado, Fresno, Kern, Lake, Lassen, Mendocino, Merced, Nevada, Plumas, Sacramento, Shasta, Sierra, Siskiyou, San Joaquin, Sonoma, Sutter, Tehama, Trinity, Tulare, and Tuolumne Counties	Freshwater marshes and swamps. Aquatic known from water bodies both natural and artificial in California. 1-2180 m. Jun-Sep	Not Present. Not observed during field survey. No appropriate habitat.
Woolly rose-mallow <i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	--/--/1B.2/No	Central Valley of California, as well as populations in eastern North America	All along the waterways of the Delta. June-September	Not Present. Not observed during field survey. No appropriate habitat.
Wright's trichocoronis <i>Trichocoronis wrightii</i> var. <i>wrightii</i>	--/--/2.1/Yes	Scattered locations in the Central Valley; southern coast of Texas	Floodplains, moist places, on alkaline soils; below 450 m. May-September.	Not Present. Not observed during field survey. No appropriate habitat.

SOURCES: CNDDDB, 2021; DE NOVO PLANNING GROUP, 2021.

NOTES: CNPS = CALIFORNIA NATIVE PLANT SOCIETY
SJMSCP = SAN JOAQUIN MULTI-SPECIES HABITAT CONSERVATION AND OPEN SPACE PLAN

FEDERAL

E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

STATE

E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.

T = THREATENED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.

R = RARE UNDER THE CALIFORNIA ENDANGERED SPECIES ACT

CALIFORNIA NATIVE PLANT SOCIETY

1B = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA AND ELSEWHERE.

2 = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA, BUT MORE COMMON ELSEWHERE.

3 = A REVIEW LIST — PLANTS ABOUT WHICH MORE INFORMATION IS NEEDED.

4 = PLANTS OF LIMITED DISTRIBUTION — A WATCH LIST

.1 = SERIOUSLY ENDANGERED IN CALIFORNIA (OVER 80% OF OCCURRENCES THREATENED-HIGH DEGREE AND IMMEDIACY OF THREAT).

.2 = FAIRLY ENDANGERED IN CALIFORNIA (20-80% OCCURRENCES THREATENED).

.3 = NOT VERY ENDANGERED IN CALIFORNIA (<20% OF OCCURRENCES THREATENED).

TABLE 3.4-3: SPECIAL-STATUS WILDLIFE AND FISH SPECIES WHICH MAY OCCUR IN PROJECT AREA

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS	PRESENCE DETERMINATION
<i>INVERTEBRATES</i>				
An andrenid bee <i>Andrena subapasta</i>	--/--/No	El Dorado, Placer, Sacramento, and San Joaquin Counties	Collects pollen primarily from <i>Arenaria californica</i> but also <i>Orthocarpus erianthus</i> and <i>Lasthenia</i> spp.	Not Present. Appropriate habitat is not present.
California linderiella <i>Linderiella occidentalis</i>	--/--/No	Ranges from near Redding in the north to as far south as Fresno County, mainly to the east of the Sacramento and San Joaquin Rivers	Natural, and artificial, seasonally ponded habitat types including: vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities	Not Present. No appropriate habitat.
Midvalley fairy shrimp <i>Branchinecta mesoallensis</i>	--/--/Yes	Have been found in Sacramento, Solano, Yolo, Contra Costa, San Joaquin, Madera, Merced and Fresno counties. The increase of known locations lends additional support to the idea that the range and distribution of midvalley fairy shrimp is greater than the distribution of known occurrences.	Shallow ephemeral pools, vernal swales, and various artificial ephemeral wetland habitats.	Not Present. No appropriate habitat.
Molestan blister beetle <i>Lytta molesta</i>	--/--/Yes	Distribution of this species is poorly known.	Annual grasslands, foothill woodlands or saltbush scrub.	Not Present. No appropriate habitat.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T/--/Yes	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County	Common in vernal pools; they are also found in sandstone rock outcrop pools.	Not Present. No appropriate habitat.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	E/--/Yes	Shasta County south to Merced County	Vernal pools and ephemeral stock ponds.	Not Present. No appropriate habitat.

<i>SPECIES</i>	<i>STATUS (FED/CA/ SJMSCP)</i>	<i>GEOGRAPHIC DISTRIBUTION</i>	<i>HABITAT REQUIREMENTS</i>	<i>PRESENCE DETERMINATION</i>
Western bumble bee <i>Bombus occidentalis</i>	--/CE/No	Western North America, ranging from the tundra region in Alaska and Yukon south along the west coast to southern British Columbia to central California, Arizona and New Mexico and east into southern Saskatchewan and northwestern Great Plains	Open coniferous, deciduous and mixed-wood forests, wet and dry meadows, montane meadows and prairie grasslands, meadows bordering riparian zones, and along roadsides in taiga adjacent to wooded areas, urban parks, gardens and agricultural areas, subalpine habitats and more isolated natural areas	Not Present. No appropriate habitat.
<i>AMPHIBIANS</i>				
California tiger salamander <i>Ambystoma californiense</i> (<i>A. tigrinum c.</i>)	T/SSC/Yes	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County.	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy.	Not Present. No appropriate upland estivation habitat. Adequate aquatic habitat along French Camp Slough, but low lowlihood of breeding due to predator populations. Not documented on the Project site. Project is subject to the SJMSCP which will require obtaining coverage for this species.
western spadefoot <i>Spea hammondi</i>	--/SSCC/Yes	Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County	Permanent and semi-permanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation. May estivate in rodent burrows or cracks during dry periods.	Not Present. No appropriate upland estivation habitat. Adequate aquatic habitat along French Camp Slough. Not documented on the Project site. Project is subject to the SJMSCP which will require obtaining coverage for this species.

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BIOLOGICAL RESOURCES

<i>SPECIES</i>	<i>STATUS (FED/CA/ SJMSCP)</i>	<i>GEOGRAPHIC DISTRIBUTION</i>	<i>HABITAT REQUIREMENTS</i>	<i>PRESENCE DETERMINATION</i>
<i>BIRDS</i>				
Burrowing owl <i>Athene cunicularia</i>	BCC/SSC/Yes	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows	Potentially Present. Foraging habitat is present on the Project site. No nests were located on the Project site.
Least Bell's vireo <i>Vireo bellii pusillus</i>	E/E/No	Central Valley of California and other low-elevation river valleys.	Dense brush, mesquite, willow-cottonwood forest, streamside thickets, and scrub oak.	Potentially Present. Appropriate habitat is associated with the French Camp Slough. This species was not observed during the field surveys.
Loggerhead shrike <i>Lanius ludovicianus</i>	BCC/SSC/Yes	Resident and winter visitor in lowlands and foothills throughout California. Rare on coastal slope north of Mendocino County, occurring only in winter	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches	Potentially Present. Foraging habitat is present on the Project site. No nests were located on the Project site.
Song sparrow (Modesto Population) <i>Melospiza melodia</i>	BCC/SSC/Yes	Restricted to California, where it is locally numerous in the Sacramento Valley, Sacramento–San Joaquin River Delta, and northern San Joaquin Valley. Exact boundaries of range uncertain.	Found in emergent freshwater marshes dominated by tules (<i>Scirpus</i> spp.) and cattails (<i>Typha</i> spp.) as well as riparian willow (<i>Salix</i> spp.) thickets. They also nest in riparian forests of Valley Oak (<i>Quercus lobata</i>) with a sufficient understory of blackberry (<i>Rubus</i> spp.), along vegetated irrigation canals and levees, and in recently planted Valley Oak restoration sites.	Potentially Present. Appropriate habitat is associated with the French Camp Slough. This species was not observed during the field surveys.

SPECIES	STATUS (FED/CA/ SJMSCP)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS	PRESENCE DETERMINATION
Swainson's hawk <i>Buteo swainsoni</i>	BCC/T/Yes	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley. Highest nesting densities occur near Davis and Woodland, Yolo County	Nests in oaks or cottonwoods in or near riparian habitats. Forages in grasslands, irrigated pastures, and grain fields	Potentially Present. Foraging habitat is present on the Project site. Nests are known within the regional vicinity, although none were located on the Project site.
Tricolored blackbird <i>Agelaius tricolor</i>	BCC/C (SSC)/Yes	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs. Probably requires water at or near the nesting colony	Potentially Present. Appropriate habitat is associated with the French Camp Slough. This species was not observed during the field surveys.
White-tailed kite <i>Elanus leucurus</i>	--/FP/Yes	Gulf Coast in Texas and Mexico and in the valley and coastal regions of central and southern California	Grasslands, marshes, row crops and alfalfa, where they hover while foraging for rodents and insects.	Potentially Present. Foraging habitat is present on the Project site. No nests were located on the Project site.
Yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	--/SSC/Yes	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds.	Nests only where large insects such as odonatan are abundant, nesting timed with maximum emergence of aquatic insects.	Potentially Present. Appropriate habitat is associated with the French Camp Slough. This species was not observed during the field surveys.
<i>FISH</i>				
Delta smelt <i>Hypomesus transpacificus</i>	T/T/Yes	Primarily in the Sacramento–San Joaquin Estuary but has been found as far upstream as the mouth of the American River on the Sacramento River and Mossdale on the San Joaquin River; range extends downstream to San Pablo Bay.	Occurs in estuary habitat in the Delta where fresh and brackish water mix in the salinity range of 2–7 parts per thousand.	Not Present. No appropriate habitat.

3.4

BIOLOGICAL RESOURCES

<i>SPECIES</i>	<i>STATUS (FED/CA/ SJMSCP)</i>	<i>GEOGRAPHIC DISTRIBUTION</i>	<i>HABITAT REQUIREMENTS</i>	<i>PRESENCE DETERMINATION</i>
Longfin smelt <i>Spirinchus thaleichthys</i>	--/SSC/Yes	Occurs in estuaries along the California coast. Adults concentrated in Suisun, San Pablo, and North San Francisco Bays.	Prior to spawning, these fish aggregate in deepwater habitats available in the northern Delta, including, primarily, the channel habitats of Suisun Bay and the Sacramento River. Spawning occurs in fresh water on the San Joaquin River below Medford Island and on the Sacramento River below Rio Vista.	Not Present. No appropriate habitat.
Steelhead - Central Valley DPS <i>Oncorhynchus mykiss irideus</i> pop. 11	T/--/No	From Russian River, south to Soquel Creek and to, but not including, Pajaro River. Also San Francisco and San Pablo Bay basins.	Aquatic, flowing waters. Populations in the Sacramento and San Joaquin rivers and their tributaries.	Not Present. No appropriate habitat.
MAMMALS				
Pallid bat <i>Antrozous pallidus</i>	--/SSCC/No	Occurs throughout California except the high Sierra from Shasta to Kern County and the northwest coast, primarily at lower and mid elevations	Occurs in a variety of habitats from desert to coniferous forest. Most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in northern California and oak woodland, grassland, and desert scrub in southern California. Relies heavily on trees for roosts	Potentially Present. Highly mobile species, can occupy a variety of natural and manmade habitat. The Project site does not provide roosting habitat. This species may forage onsite at times.
Riparian brush rabbit <i>Sylvilagus bachmani riparius</i>	E/E/Yes	Limited to San Joaquin County at Caswell State Park near the confluence of the Stanislaus and San Joaquin Rivers and Paradise Cut area on Union Pacific right-of-way lands	Native valley riparian habitats with large clumps of dense shrubs, low-growing vines, and some tall shrubs and trees	Not Present. No appropriate habitat. No recorded observations in the records.
REPTILES				
Giant garter snake <i>Thamnophis couchi gigas</i>	T/T/Yes	Central Valley from the vicinity of Burrell in Fresno County north to near Chico in Butte County; has been extirpated from areas south of Fresno	Sloughs, canals, low gradient streams and freshwater marsh habitats where there is a prey base of small fish and amphibians; they are also found in irrigation ditches and rice	Potentially Present. Adequate habitat along French Camp Slough. Not observed during the May

<i>SPECIES</i>	<i>STATUS (FED/CA/ SJMSCP)</i>	<i>GEOGRAPHIC DISTRIBUTION</i>	<i>HABITAT REQUIREMENTS</i>	<i>PRESENCE DETERMINATION</i>
			fields; requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter.	field surveys (November surveys were during the dormant period). Not documented on the Project site. Project is subject to the SJMSCP which will require obtaining coverage for this species.
Northern California legless lizard <i>Anniella pulchra</i>	--/SSCC/No	This lizard is common in suitable habitats in the Coast Ranges from Contra Costa County south to the Mexican border, but only has a spotty occurrence throughout the rest of its range, which includes the San Joaquin Valley to the west slope of the southern Sierra, the Tehachapi Mountains west of the desert and in the mountains of southern California.	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	Not Present. No appropriate habitat. No recorded observations in the records.

SOURCES: CNDDDB, 2021; DE NOVO PLANNING GROUP, 2021.

STATUS EXPLANATIONS:

FEDERAL

E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

PE = PROPOSED FOR ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

PT = PROPOSED FOR THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

C = CANDIDATE SPECIES FOR LISTING UNDER THE FEDERAL ENDANGERED SPECIES ACT.

D = DELISTED FROM FEDERAL LISTING STATUS.

BCC = BIRD OF CONSERVATION CONCERN

STATE

E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.

T = THREATENED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.

C = CANDIDATE SPECIES FOR LISTING UNDER THE STATE ENDANGERED SPECIES ACT.

FP = FULLY PROTECTED UNDER THE CALIFORNIA FISH AND GAME CODE.

SSC = SPECIES OF SPECIAL CONCERN IN CALIFORNIA.

3.4.2 REGULATORY SETTING

There are a number of regulatory agencies whose responsibility includes the oversight of the natural resources of the state and nation including the California Department of Fish and Wildlife (CDFW), USFWS, U.S. Army Corps of Engineers (USACE), and the Central Valley Regional Water Quality Control Board (CVRWQCB). These agencies often respond to declines in the quantity of a particular habitat or plant or animal species by developing protective measures for those species or habitat type. The following is an overview of the federal, state and local regulations that are applicable to the proposed Project.

FEDERAL

Federal Endangered Species Act

The Federal Endangered Species Act (FESA), passed in 1973, defines an endangered species as any species or subspecies that is in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as any species or subspecies that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Once a species is listed it is fully protected from a “take” unless a take permit is issued by the USFWS. A take is defined as the harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct, including modification of its habitat (16 USC 1532, 50 CFR 17.3). Proposed endangered or threatened species are those species for which a proposed regulation, but not a final rule, has been published in the Federal Register.

Migratory Bird Treaty Act

To kill, possess, or trade a migratory bird, bird part, nest, or egg is a violation of the Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., §703, Supp. I, 1989), unless it is in accordance with the regulations that have been set forth by the Secretary of the Interior.

Federal Bald and Golden Eagle Protection Act

The Federal Bald and Golden Eagle Protection Act provide regulations to protect bald and golden eagles as well as their nests and eggs from willful damage or injury.

Clean Water Act – Section 404

Section 404 of the CWA regulates all discharges of dredged or fill material into waters of the U.S. Discharges of fill material includes the placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)].

Waters of the U.S. include lakes, rivers, streams, intermittent drainages, mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as “those areas that are inundated or

saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” [33 C.F.R. §328.3(b)]. Waters of the U.S. exhibit a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the USACE as “that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” [33 C.F.R. §328.3(e)].

The USACE is the agency responsible for administering the permit process for activities that affect waters of the U.S. Executive Order 11990 is a federal implementation policy, which is intended to result in no net loss of wetlands.

Clean Water Act – Section 401

Section 401 of the CWA (33 U.S.C. 1341) requires an applicant who is seeking a 404 permit to first obtain a water quality certification from the CVRWQCB. To obtain the water quality certification, the CVRWQCB must indicate that the proposed fill would be consistent with the standards set forth by the state.

Rivers and Harbors Act of 1899

The Rivers and Harbors Act prohibits the obstruction or alteration of any navigable water of the United States. The Act requires authorization from the USACE for any excavation or deposition of materials into these waters or for any work that could affect the course, location, condition, or capacity of rivers or harbors.

STATE

Fish and Game Code §2050-2097 – California Endangered Species Act

The California Endangered Species Act (CESA) protects certain plant and animal species when they are of special ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. CESA established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats.

CESA was expanded upon the original Native Plant Protection Act and enhanced legal protection for plants. To be consistent with Federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the Act as threatened species, but did not do so for rare plants. Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Under State law, plant and animal species may be formally designated by official listing by the California Fish and Game Commission.

Fish and Game Code §1900-1913 – California Native Plant Protection Act

In 1977 the State Legislature passed the Native Plant Protection Act (NPPA) in recognition of rare and endangered plants of the state. The intent of the law was to preserve, protect, and enhance endangered plants. The NPPA gave the California Fish and Game Commission the power to designate

native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants. The NPPA includes provisions that prohibit the taking of plants designated as "rare" from the wild, and a salvage mandate for landowners, which requires notification of the CDFW 10 days in advance of approving a building site.

Fish and Game Code §3503, 3503.5, 3800 – Predatory Birds

Under the California Fish and Game Code, all predatory birds in the order Falconiformes or Strigiformes in California, generally called “raptors,” are protected. The law indicates that it is unlawful to take, possess, or destroy the nest or eggs of any such bird unless it is in accordance with the code. Any activity that would cause a nest to be abandoned or cause a reduction or loss in a reproductive effort is considered a take. This generally includes construction activities.

Fish and Game Code §1601-1603 – Streambed Alteration

Under the California Fish and Game Code, CDFW has jurisdiction over any proposed activities that would divert or obstruct the natural flow or change the bed, channel, or bank of any lake or stream. Private landowners or project proponents must obtain a “Streambed Alteration Agreement” from CDFW prior to any alteration of a lake bed, stream channel, or their banks. Through this agreement, the CDFW may impose conditions to limit and fully mitigate impacts on fish and wildlife resources. These agreements are usually initiated through the local CDFW warden and will specify timing and construction conditions, including any mitigation necessary to protect fish and wildlife from impacts of the work.

Public Resources Code §21000 - California Environmental Quality Act

CEQA identifies that a species that is not listed on the federal or state endangered species list may be considered rare or endangered if the species meets certain criteria. (CEQA Guidelines § 15380) Species that are not listed under FESA or CESA, but are otherwise eligible for listing (i.e. candidate, or proposed) may be protected by the local government until the opportunity to list the species arises for the responsible agency.

Species that may be considered for review are included on a list of “Species of Special Concern,” developed by the CDFW. Additionally, the California Native Plant Society (CNPS) maintains a list of plant species native to California that have low populations, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. List 1A contains plants that are believed to be extinct. List 1B contains plants that are rare, threatened, or endangered in California and elsewhere. List 2 contains plants that are rare, threatened, or endangered in California, but more numerous elsewhere.

California Wetlands Conservation Policy

In August 1993, the Governor announced the "California Wetlands Conservation Policy." The goals of the policy are to establish a framework and strategy that will:

- Ensure no overall net loss and to achieve a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property.
- Reduce procedural complexity in the administration of State and federal wetland conservation programs.
- Encourage partnerships to make landowner incentive programs and cooperative planning efforts the primary focus of wetland conservation and restoration.

The Governor also signed Executive Order W-59-93, which incorporates the goals and objectives contained in the new policy and directs the Resources Agency to establish an Interagency Task Force to direct and coordinate administration and implementation of the policy.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act provides long-term protection of species and habitats through regional, multi-species planning before the special measures of the CESA become necessary.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act authorizes the SWRCB to regulate state water quality and protect beneficial uses.

Water Quality Control Plan for the Sacramento-San Joaquin River Basins

The Water Quality Control Plan for the Sacramento-San Joaquin River Basins (Basin Plan), adopted by the CVRWQCB in 1998, identifies the beneficial uses of water bodies and provides water quality objectives and standards for waters of the Sacramento River and SJR basins, including the Delta.

State and federal laws mandate the protection of designated “beneficial uses” of water bodies. State law defines beneficial uses as “domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves” (Water Code Section 13050[f]). Additional protected beneficial uses of the SJR include groundwater recharge and fresh water replenishment. Major issues and the general conditions of existing beneficial uses in the SJR are as follows:

- **Water Supply:** The City’s water supplies include purchased water, surface water, and groundwater. The surface water component of the water supply comes from Delta water at the DWSP intake facility, from the San Joaquin River. The City’s water rights application addressed a long-term planning horizon through the year 2050, requesting an ultimate diversion of 160 million gallons per day (mgd) (125,900 AFY). The State Water Resources Control Board (SWRCB) divided the water rights application into two separate applications, Application 30531A and 30531B. Application 30531A covers the initial phase of the DWSP up to 30 mgd (33,600 AFY) and the place of use is confined to the current 1990 General Plan boundary. The initial phase was granted a water right under California Water Code Section 1485. The City has a permit from the SWRCB issued on March 8, 2006 for a 33,600 AFY supply

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from the Sacramento/San Joaquin Delta. The DWSP intake and water treatment plant was operational in 2012 with an initial capacity of 30 mgd (33,600 AFY). The projected capacity of the DWSP by 2035 is 90 mgd with an annual production of approximately 50,000 AFY. The DWSP will expand as needed up to 120 mgd provided water rights are granted. The City's supply from the San Joaquin River is curtailed annually from February through June of each year due to U.S. Department of Fish and Wildlife Service and Department of Fish and Game restrictions. California Water Code (CWC) Section 1485 Water Rights allows the City to take out of the Delta as much water as the City's wastewater treatment plant discharges into the Delta. This quantity, which fully covers the 33,600 AFY, is not restricted as long as the same amount of wastewater is discharged into the Delta. Section 1485 water may be subject to pumping restriction in some months due to fish protection.

- **Agricultural Supply:** Extensive use is made of SJR and Delta waters for agricultural purposes. Annual water diversions from the Delta by the State Water Project (SWP) and the Central Valley Project (CVP) for agriculture are estimated to reach 4.3 million acre-feet (MAF) per year by 2030. In addition, about 2,000 privately owned agricultural water supply diversions are scattered throughout the Delta, generally consisting of riverside pumping stations.
- **Recreation:** Water-dependent recreation uses of the SJR and the Delta include swimming, wading, waterskiing, sport fishing, and a variety of other activities that involve contact with the water. Noncontact (water-enhanced) recreation uses include picnicking, camping, pleasure boating, hunting, bird watching, education, and aesthetic enjoyment.
- **Groundwater Recharge:** Water from the SJR and the Delta recharges the San Joaquin Valley groundwater basin. Recharge serves to maintain salt balance in the soil column, prevent saltwater intrusion into freshwater aquifers, and provide for water supplies. Groundwater is replenished through deep percolation of streamflow, precipitation, and applied irrigation water. Groundwater quality is generally adequate throughout the San Joaquin Valley and the Delta, although at shallow depths within the Delta the water is often saline and contains high levels of total dissolved solids (TDS) and dissolved minerals. Enforceable TDS standards do not exist for drinking water. The need for treatment generally depends on consumer acceptance.
- **Fish and Wildlife:** The SJR and the waterways of the Delta provide important habitat for a diverse variety of aquatic life and terrestrial wildlife. This includes temporary habitat and migration routes for anadromous and other migratory species, as well as permanent habitat for resident species. Fish dependent on the Delta as a migration corridor, nursery, or permanent residence include Chinook salmon, steelhead, delta smelt, Sacramento splittail, striped bass, American shad, sturgeon, catfish, largemouth bass, and numerous other estuary and freshwater species. The amount and quality of water flowing through the Delta greatly influences the overall productivity of the area on an annual basis. A large assemblage of wildlife uses the Delta either seasonally or year round, including waterfowl; migratory and resident songbirds; mice, rabbits, and other small mammals; water dependent mammals, such as beaver and muskrat; and predators such as skunk, raccoon, northern harrier, and coyote.

LOCAL

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

A Habitat Conservation Plan (HCP) is a federal planning document that is prepared pursuant to Section 10 of the FESA. An approved HCP within a defined plan area allows for the incidental take of species and habitat that are otherwise protected under FESA during development activities.

A Natural Community Conservation Plan (NCCP) is a state planning document administered by CDFW. An approved NCCP within a defined plan area allows for the incidental take of species and habitat that are otherwise protected under CESA during growth and development activities.

BACKGROUND

The key purpose of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), is to provide a strategy for balancing the need to conserve Open Space and the need to Convert Open Space to non-Open Space uses while protecting the region's agricultural economy; preserving landowner property rights; providing for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under the Federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA); providing and maintaining multiple-use Open Spaces which contribute to the quality of life of the residents of San Joaquin County; and accommodating a growing population while minimizing costs to Project Proponents and society at large.

San Joaquin County's past and future (2001-2051) growth has affected and will continue to affect 97 special status plant, fish and wildlife species in 52 vegetative communities scattered throughout San Joaquin County's 1,400+ square miles and 900,000+ acres, which include 43% of the Sacramento-San Joaquin Delta's Primary Zone. The SJMSCP, in accordance with ESA Section 10(a)(1)(B) and CESA Section 2081(b) Incidental Take Permits, provides compensation for the Conversion of Open Space to non-Open Space uses which affect the plant, fish and wildlife species covered by the Plan, hereinafter referred to as "SJMSCP Covered Species". In addition, the SJMSCP provides some compensation to offset the impacts of open space land conversions on non-wildlife related resources such as recreation, agriculture, scenic values and other beneficial Open Space uses.

The SJMSCP compensates for Conversions of Open Space for the following activities: urban development, mining, expansion of existing urban boundaries, non-agricultural activities occurring outside of urban boundaries, levee maintenance undertaken by the San Joaquin Area Flood Control Agency, transportation projects, school expansions, non-federal flood control projects, new parks and trails, maintenance of existing facilities for non-federal irrigation district projects, utility installation, maintenance activities, managing Preserves, and similar public agency projects. These activities will be undertaken by both public and private individuals and agencies throughout San Joaquin County and within the County's incorporated cities of Escalon, Manteca, Lodi, Manteca, Ripon, Stockton and Tracy. Public agencies including Caltrans (for transportation projects), and the

3.4 BIOLOGICAL RESOURCES

San Joaquin Council of Governments (for transportation projects) also will undertake activities which will be covered by the SJMSCP. In addition, 5,340 acres is allocated for anticipated projects (e.g., annexations, general plan amendments)

The 97 SJMSCP Covered Species include 25 state and/or federally listed species. The SJMSCP Covered Species include 27 plants (6 listed), 4 fish (2 listed), 4 amphibians (1 listed), 4 reptiles (1 listed), 33 birds (7 listed), 15 mammals (3 listed) and 10 invertebrates (5 listed).

IMPLEMENTATION

The SJMSCP is administered by a Joint Powers Authority consisting of members of the San Joaquin County Council of Governments (SJCOG), the CDFW, and the USFWS. Development project applicants are given the option of participating in the SJMSCP as a way to streamline compliance with required local, State and federal laws regarding biological resources, and typically avoid having to approach each agency independently. According to the SJMSCP, adoption and implementation by local planning jurisdictions provides full compensation and mitigation for impacts to plants, fish and wildlife. Adoption and implementation of the SJMSCP also secures compliance pursuant to the state and federal laws such as CEQA, the National Environmental Policy Act (NEPA), the Planning and Zoning Law, the State Subdivision Map Act, the Porter-Cologne Act and the Cortese-Knox Act in regard to species covered under the SJMSCP.

Applicants pay mitigation fees on a per-acre basis, as established by the Joint Powers Authority according to the measures needed to mitigate impacts to the various habitat and biological resources. Different types of land require different levels of mitigation; i.e., one category requires that one acre of a similar land type be preserved for each acre developed, while another type requires that two acres be preserved for each acre developed. The entire County is mapped according to these categories so that land owners, project proponents and project reviewers are easily aware of the applicable SJMSCP fees for the proposed development.

The appropriate fees are collected by the City and remitted to SJCOG for administration. SJCOG uses the funds to preserve open space land of comparable types throughout the County, often coordinating with other private or public land trusts to purchase conservation easements or buy land outright for preservation. Development occurring on land that has been classified under the SJMSCP as “no-pay” would not be required to pay a fee. This category usually refers to already urbanized land and infill development areas. Although the fees are automatically adjusted on an annual basis, based on the construction cost index, they often cannot keep pace with the rapidly rising land prices in the Central Valley.

The vast majority of the Project site is designated as Category C/Pay Zone B. This zone consists of “Agricultural Habitat Lands”, as described in Chapter 2.2 of the SJMSCP. Portions of the Project site located along French Camp Slough are designated as Category A/No Pay Zone. This zone consists of “Urban Lands”, as described in Chapter 2.2 of the SJMSCP.

Envision Stockton 2040 General Plan

The Envision Stockton 2040 General Plan includes several policies and actions that are relevant to biological resources. General Plan policies and actions applicable to the Project are identified below:

POLICIES: LAND USE ELEMENT

- LU-5.2. Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development.
- LU-5.3. Define discrete and clear city edges that preserve agriculture, open space, and scenic views.

ACTIONS: LAND USE ELEMENT

- LU-5.2A. Continue to coordinate with the San Joaquin Council of Governments and comply with the terms of the Multi-Species Habitat Conservation and Open Space Plan to protect critical habitat areas that support endangered, threatened, and special-status species.
- LU-5.2B. For projects on or within 100 feet of sites that have the potential to contain special-status species or critical or sensitive habitats, including wetlands, require preparation of a baseline assessment by a qualified biologist following appropriate protocols, such as wetland delineation protocol defined by the US Army Corps of Engineers. If such sensitive species or habitats are found to be present, development shall avoid impacting the resource, and if avoidance is not feasible, impacts shall be minimized through project design or compensation identified in consultation with a qualified biologist.
- LU-5.2C. Require new development to implement best practices to protect biological resources, including incidental take minimization measures and other federal and State requirements and recommendations that are consistent with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan.

POLICY: SAFETY ELEMENT

- SAF-2.3. Protect the community from potential flood events.

ACTIONS: SAFETY ELEMENT

- SAF-2.3A. Coordinate with appropriate State, federal, and local flood control agencies to develop a flood protection plan for the levee systems protecting the city that:
 - Identifies the levees protecting the city and the entities responsible for the operation and maintenance of the levees;
 - Determines the flood levels in the waterways and the level of protection offered by the existing levees along the waterways;
 - Identifies a long-term plan to upgrade the system as necessary to provide at least a 100-year level of flood protection to the city, and 200-year level of flood protection, where feasible;

3.4 BIOLOGICAL RESOURCES

- Encourages multi-purpose flood management projects that, where feasible, incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the city's streams, creeks, and lakes; and
- Includes provisions for updates to reflect future State or federally mandated levels of flood protection.

City of Stockton Municipal Code

The Stockton Municipal Code, Title 16 Development Code protects Heritage Oak Trees through permit requirements. Section 16.130.020 provides the Director with Review Authority for permits to remove heritage trees. The decision of the Director is subject to an appeal to the Council in compliance with Chapter 16.100 (Appeals). (Ord. 015-09 C.S., eff. 12-3-09). Section 16.130.030 provides the permit requirements, and describes the process for approval or denial of a permit application. Section 16.130.040 establishes fines for violation of this requirement. Section 16.130.050 provides exemptions under emergencies. Section 16.130.060 establishes the replacement requirements.

3.4.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on biological resources if it will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

IMPACTS AND MITIGATION

Impact 3.4-1: The proposed Project would not have a direct or indirect effect on special-status invertebrate species (Less than Significant)

There are seven special-status invertebrates that are documented within the nine-quadrangle region for the Project site according to the CNDDB, including: An andrenid bee (*Andrena subapasta*), California linderiella (*Linderiella occidentalis*), Midvalley fairy shrimp (*Branchinecta mesoallensis*), Molestan blister beetle (*Lytta molesta*), Vernal pool fairy shrimp (*Branchinecta lynchi*), Vernal pool tadpole shrimp (*Lepidurus packardii*), and Western bumble bee (*Bombus occidentalis*) (Refer to Table 3.2-4).

Field surveys and habitat evaluations for the entire Project site were performed on May 4, and November 9, 2020. (De Novo Planning Group, 2020). No special-status invertebrates were observed within the Project site during field surveys and none are expected to be affected by the proposed Project based on the lack of appropriate habitat.

The Midvalley fairy shrimp, Molestan blister beetle, Vernal pool fairy shrimp, and Vernal pool tadpole shrimp are covered species under the SJMCP.

Midvalley fairy shrimp have been found in Sacramento, Solano, Yolo, Contra Costa, San Joaquin, Madera, Merced and Fresno counties. The increase of known locations lends additional support to the idea that the range and distribution of midvalley fairy shrimp is greater than the distribution of known occurrences. They are commonly found in shallow ephemeral pools, vernal swales, and various artificial ephemeral wetland habitats. Midvalley fairy shrimp is not anticipated to be directly affected by any individual phase or component of the proposed Project because there is not enough adequate vernal pool habitat on the Project site.

Molestan blister beetle has a poorly known geographic distribution. They are commonly found in annual grasslands, foothill woodlands or saltbush scrub. Molestan blister beetle is not anticipated to be directly affected by any individual phase or component of the proposed Project because there is not appropriate grassland, woodland, or scrub habitat on the Project site.

Vernal pool fairy shrimp is a federal threatened invertebrate found in the Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. They are commonly found in vernal pools and in sandstone rock outcrop pools. Vernal pool fairy shrimp are not anticipated to be directly affected by any individual phase or component of the proposed Project because there is not enough adequate vernal pool habitat on the Project site.

Vernal pool tadpole shrimp is a federal endangered invertebrate found in vernal pools and stock ponds from Shasta County south to Merced County. Vernal pool tadpole shrimp is not anticipated to be directly affected by any individual phase or component of the proposed Project because there is not enough adequate vernal pool habitat on the Project site.

Essential habitat for andrenid bee, California linderiella, or Western bumble bee is not adequate enough on the Project site to support the species and none were found on the project site during

the aforementioned field surveys (De Novo Planning Group, 2020). These species have not been documented on the Project site, nor is there appropriate habitat on the Project site.

Overall, the proposed Project would have a **less than significant** impact on special-status invertebrate species.

Impact 3.4-2: The proposed Project has the potential to have direct or indirect effects on special-status reptile and amphibian species (Less than Significant with Mitigation)

There are two special-status amphibians and two special-status reptiles that are documented within the nine-quadrangle area for the Project site according to the CNDDB, including: Giant garter snake (*Thamnophis couchi gigas*), Northern California legless lizard (*Anniella pulchra*), California tiger salamander (*Ambystoma californiense*), and western spadefoot (*Spea hammondi*). The Giant garter snake, California tiger salamander, and western spadefoot are covered species under the SJMCP; Northern California legless lizard is not covered.

Giant garter snake: This species is a state and federal threatened species. The nearest CNDDB occurrence for this species is located approximately 6.5 miles northwest of the Project site. The Project site contains adequate habitat for giant garter snake along French Camp Slough. It is noted that this species was not observed during the May field surveys (November surveys were during the dormant period) (De Novo Planning Group, 2020) and has not been documented on the Project site. It is noted that the project is subject to the SJMSCP which will require obtaining coverage for the Project. This would mean that the SJCOG, under authorization from the USFWS and CNDDB would review the project and issue incidental take authorization (permits) under the Endangered Species Act Section 10(a), California Fish and Game Code Section 2081, and the MBTA. Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species. Therefore, with full coverage under the SJMSCP (Mitigation Measure 3.4-1), the proposed Project would have a **less than significant** impact on this special-status species.

Northern California legless lizard: This species is a Species of Special Concern. The nearest CNDDB occurrence for this species is located approximately 14.6 miles southeast of the Project site. The Project site does not contain adequate habitat for Northern California legless lizard. This species was not observed during the field surveys and has not been documented on the Project site. Based on field surveys, this species is not present. Therefore, the proposed Project would have a **less than significant** impact on this special-status species.

California tiger salamander: This species is a Species of Special Concern and federal threatened species. The nearest CNDDB occurrence for this species is located approximately 6.6 miles northwest of the Project site. The Project site does not contain adequate estivation habitat for this species because of the frequency of disturbance associated with the agricultural activities. The French Camp slough could be breeding habitat, although the likelihood is low considering the number of predators that live within this water feature (i.e., salmon, steelhead, striper, etc.). This species was not observed during the field surveys (De Novo Planning Group, 2020) and has not been documented on the Project site. This species is not anticipated to be present due to the lack of adequate habitat.

It is noted that the project is subject to the SJMSCP which will require obtaining coverage for the Project. This would mean that the SJCOG, under authorization from the USFWS and CNDDDB would review the project and issue incidental take authorization (permits) under the Endangered Species Act Section 10(a), California Fish and Game Code Section 2081, and the MBTA. Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species. Therefore, with full coverage under the SJMSCP (Mitigation Measure 3.4-1), the proposed Project would have a **less than significant** impact on this special-status species.

Western spadefoot: This species is a Species of Special Concern. The nearest CNDDDB occurrence for this species is located approximately 3.7 miles northwest of the Project site. The Project site contains appropriate and adequate habitat for western spadefoot along French Camp Slough. This species was not observed during the field surveys (De Novo Planning Group, 2020) and has not been documented on the Project site. It is noted that the project is subject to the SJMSCP which will require obtaining coverage for the Project. This would mean that the SJCOG, under authorization from the USFWS and CNDDDB would review the project and issue incidental take authorization (permits) under the Endangered Species Act Section 10(a), California Fish and Game Code Section 2081, and the MBTA. Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species. Therefore, with full coverage under the SJMSCP (Mitigation Measure 3.4-1), the proposed Project would have a **less than significant** impact on this special-status species.

MITIGATION MEASURE(S)

Mitigation Measure 3.4-1: *Prior to commencement of any grading activities, the Project proponent shall seek coverage under the San Joaquin County Multi-Species Habitat Conservation Plan (SJMSCP) to mitigate for habitat impacts to covered special status species. Coverage involves compensation for habitat impacts on covered species through implementation of incidental take and minimization measures (ITMMs) and payment of fees for conversion of lands that may provide habitat for covered special status species. These fees are used to preserve and/or create habitat in preserves to be managed in perpetuity. Obtaining coverage for a Project includes incidental take authorization (permits) under the Endangered Species Act Section 10(a), California Fish and Game Code Section 2081, and the Migratory Bird Treaty Act (MBTA). Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species.*

Impact 3.4-3: The proposed Project has the potential to have direct or indirect effects on special-status bird species (Less than Significant with Mitigation)

There are eight special-status birds that are documented in the CNDDDB within the nine-quadrangle area for the Project site according to the CNDDDB, including: Burrowing owl (*Athene cunicularia*), Least Bell's vireo (*Vireo bellii pusillus*), Loggerhead shrike (*Lanius ludovicianus*), Song sparrow (Modesto Population) (*Melospiza melodia*), Swainson's hawk (*Buteo swainsoni*), Tricolored blackbird (*Agelaius tricolor*), White-tailed kite (*Elanus leucurus*), and Yellow-headed blackbird (*Xanthocephalus xanthocephalus*). All of these bird species, except for Least bell's vireo, are covered species under the SJMSCP. These species were not observed during the field surveys (De Novo Planning Group, 2020).

3.4 BIOLOGICAL RESOURCES

Potential nesting habitat is present in a variety of trees located within the Project site and in the vicinity. There is also the potential for other special-status birds that do not nest in this region and represent migrants or winter visitants to forage on the Project site.

Year-round birds: Special-status birds that can be present in the region throughout the year include: burrowing owl (*Athene cunicularia*), loggerhead shrike (*Lanius ludovicianus*), song sparrow (Modesto population) (*Melospiza melodia*), tricolored blackbird (*Agelaius tricolor*), and Least Bell's vireo (*Vireo bellii pusillus*), among others. Some of these species are migratory, but also reside year-round in California.

Summering Birds: The only special-status bird listed in the CNDDB search that is only present in the region in the spring and summer months is Yellow-headed blackbird (*Xanthocephalus xanthocephalus*).

Nesting Raptors (Birds of Prey): All raptors (owls, hawks, eagles, falcons), including species and their nests, are protected from take pursuant to the Fish and Game Code of California Section 3503.5, and the federal Migratory Bird Treaty Act, among other federal and State regulations. Special-status raptors that are known to occur in the region include: Swainson's hawk (*Buteo swainsoni*) and white-tailed kite (*Elanus leucurus*), among others.

Analysis: Powerlines and trees located in the region represent potentially suitable nesting habitat for a variety of special-status birds. Additionally, the agricultural land represents potentially suitable nesting habitat for some ground-nesting birds. In general, most nesting occurs from late February and early March through late July and early August, depending on various environmental conditions. The CNDDB currently contains records for Swainson's hawk, burrowing owl, and tricolored blackbird in the vicinity of the Project site. In addition to the species described above, common raptors, may nest in or adjacent to the Project site.

New sources of noise and light during the construction and operational phases of the project could adversely affect nesters if they located adjacent to the Project site in any given year. Additionally, the proposed Project would eliminate the agricultural areas on the Project site, which serve as potential foraging habitat for birds throughout the year. Mitigation Measure 3.4-1 requires participation in the SJMSCP. As part of the SJMSCP, SJCOG requires preconstruction surveys for projects that occur during the avian breeding season (March 1 – August 31). When active nests are identified, the biologists develop buffer zones around the active nests as deemed appropriate until the young have fledged. SJCOG also uses the fees to purchase habitat as compensation for the loss of foraging habitat. Implementation of the proposed Project, with the Mitigation Measure 3.4-1, would ensure that potential impacts to special status birds are reduced to a ***less than significant*** level.

MITIGATION MEASURE(S)

Implement Mitigation Measure 3.4-1.

Impact 3.4-4: The proposed Project would not result in direct or indirect effects on special-status mammal species (Less than Significant)

There are two special-status mammals that are documented within the nine-quadrangle area for the Project site, including: Riparian brush rabbit (*Sylvilagus bachmani riparius*) and Pallid bat (*Antrozous pallidus*). Riparian brush rabbit is a covered species under the SJMSCP, while Pallid bat is not.

Riparian brush rabbit: This species is a state and federal endangered species. The Project site does not contain appropriate habitat for riparian brush rabbit. This species was not observed during the field surveys and has not been documented on the Project site (De Novo Planning Group, 2021). The nearest CNDDDB occurrence for this species is located approximately 4.7 miles southwest of the Project site. Regardless, the project is subject to the SJMSCP which will require obtaining coverage for the Project. This would mean that the SJCOG, under authorization from the USFWS and CNDDDB would review the project and issue incidental take authorization (permits) under the Endangered Species Act Section 10(a), California Fish and Game Code Section 2081, and the MBTA. Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species. Therefore, with full coverage under the SJMSCP (Mitigation Measure 3.4-1), the proposed Project would have a **less than significant** impact on this special-status species.

Pallid bat (and other bats): The Pallid bat is a Species of Special Concern, that is less common to the region. Other bats known to the region include: Greater western mastiff bat (*Eumops perotis californicus*), western red bat (*Lasiurus blossevillei*), small-footed myotis/bat (*Myotis ciliolabrum*), long-eared myotis/bat (*Myotis evotis*), fringed myotis/bat (*Myotis thysanodes*), long-legged myotis/bat (*Myotis volans*), and Yuma myotis/bat (*Myotis yumanensis*). These species are not Federal or State listed; however, they are considered CDFW species of special concern and/or are tracked by the CNDDDB. These bats species are highly mobile species that can occupy a variety of habitats, both natural and manmade. The most sensitive habitat type for these species is roosting habitat, including maternal roosts, as well as non-maternal day or night roosting habitat.

The Project site does not provide roosting habitat for bats, although roosting habitat is found throughout the region. The nearest CNDDDB occurrence for the Pallid bat is located approximately 12.7 miles east of the Project site, although it is anticipated that there may be numerous undocumented individuals throughout the region.

Development of the Project site would eliminate foraging habitat for special status bats by removing the open agricultural areas. With the exception of Pallid bat, these bat species are covered species under the SJMCP and participation in the SJMSCP will provide the coverage for the incidental take of a species if it were to occur. SJCOG, Inc. as administrator of the SJMSCP will impose appropriate avoidance and minimization measures as part of the incidental take permit. Mitigation Measure 3.4-1, previously listed, will ensure coverage under the SJMSCP. Therefore, this impact would be **less than significant**.

Impact 3.4-5: The proposed Project would not result in direct or indirect effects on candidate, sensitive, or special-status plant species (Less than Significant)

There are 17 special-status plants that are documented within the nine-quadrangle area for the Project site, including: Alkali milk-vetch (*Astragalus tener* var. *tener*), Big tarplant (*Blepharizonia plumosa*), Delta button-celery (*Eryngium racemosum*), Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*), Greene's tuctoria (*Tuctoria greenei*), Heartscale (*Atriplex cordulata* var. *cordulata*), Mason's lilaeopsis (*Lilaeopsis masonii*), Palmate-bracted bird's-beak (*Chloropyron palmatum*), Recurved larkspur (*Delphinium recurvatum*), Saline clover (*Trifolium hydrophilum*), San Joaquin spearscale (*Extriplex joaquinana*), Sanford's arrowhead (*Sagittaria sanfordii*), Slough thistle (*Cirsium crassicaule*), Suisun Marsh aster (*Symphotrichum lentum*), Watershield (*Brasenia schreberi*), Woolly rose-mallow (*Hibiscus lasiocarpus* var. *occidentalis*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*).

Of the 17 documented species, there are two federal listed species (endangered), four state listed species (endangered and rare), 15 CNPS 1B listed species, and two CNPS 2 listed species (including 2B.3 and 2.1). Four of the 17 plant species are not covered by the SJMSCP (Big tarplant, Saline clover, Watershield, and Woolly rose-mallow), while the remaining 13 species are covered.

Field surveys and habitat evaluations for the entire Project site were performed on May 4, and November 9, 2020 (De Novo Planning Group, 2021). The collection of field surveys included one survey that coincided with the blooming period for special many status plants known to occur within the region. It is noted, however, that the conditions of the Project site are highly disturbed due to the active agricultural operations and there is very little potential for any vegetation growth outside the agriculturally planted vegetation. No special-status plants were observed within the Project site during field surveys. Implementation of the individual phases, and the proposed Project as a whole, will have a **less than significant** impact on special status plants.

Impact 3.4-6: The proposed Project would not affect protected wetlands and jurisdictional waters (Less than Significant with Mitigation)

French Camp Slough extends southeast from Airport Way across the southwestern portion of the site. It continues east under the UPRR and then south across the southwestern portion of the site, before continuing south off-site. The Project would include creation of 54 acres of open space along and surrounding the Slough in order to avoid disturbance and other urban activities. However, an outfall from a proposed storm drain basin to French Camp Slough would be constructed as part of the Project.

According to the Impacts to Aquatic Resources figures (see Figure 3.4-3) (Madrone Ecological Consulting, 2019), the proposed outfall would impact 0.036 acres of perennial creek and 0.007 acres of roadside ditch, for a total of 0.043 acres of impacts to aquatic resources.

The USACE has regulatory responsibility for navigable waters as well as "all other waters such as...streams ...wetlands...and natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce" (33 CFR 323.2) under Section 404 of the Clean Water Act. A

formal jurisdictional determination must be made by the USACE relative to the wetlands delineated on the Project site. Additionally, a Nationwide Permit would be required from the USACE. Further, the project will be subject to the RWQCB permit activities for controlling pollution during construction and operational activities under a NPDES permit. The Project site is an active agricultural operation that is composed of mostly orchards and crops. Compliance with existing RWQCB and USACE procedures and regulations would ensure the impact is **less than significant**.

MITIGATION MEASURE(S)

Mitigation Measure 3.4-2: *Prior to the start of construction work in the area where wetlands have been identified, the project developer shall conduct a wetland delineation identifying jurisdictional Waters of the U.S. and wetlands. The delineation shall be verified by the U.S. Army Corps of Engineers (Corps). The delineation shall be used to determine if any project work will encroach upon any jurisdictional water, thereby necessitating an appropriate permit. For any development work that may affect a delineated jurisdictional Water, the project developer shall obtain any necessary permits from the U.S. Army Corps of Engineers prior to the start of development work within these locations. Depending on the Corps permit issued, the project applicant shall also apply for a Section 401 Water Quality Certification from the Central Valley Regional Water Quality Control Board. If the seasonal wetlands are avoided, or if phased development occurs in areas where no wetlands have been identified, then this mitigation measure does not apply.*

Mitigation Measure 3.4-3: *Prior to the start of construction work in the area where seasonal wetlands have been identified, the project developer shall obtain any necessary Waste Discharge Requirements from the Central Valley Regional Water Quality Control Board. Pursuant to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, the filling of seasonal wetlands containing vernal pool invertebrates shall be delayed until the wetlands are dry and SJCOG biologists can collect the surface soils from the wetlands, to store them for future use on off-site seasonal wetland creation on SJCOG preserve lands. If the seasonal wetlands are avoided, then this mitigation measure does not apply.*

Impact 3.4-7: The proposed Project would not result in adverse effects on riparian habitat or a sensitive natural community (Less than Significant)

The CNDDDB record search revealed documented occurrences of one sensitive habitat within the nine-quadrangle area for the Project site: Valley Oak Woodland. This sensitive natural community does not occur within the Project site.

The Project site contains riparian habitat along French Camp Slough. However, with the exception of the proposed outfall, the proposed Project would not develop or otherwise disturb this riparian habitat. The Project includes approximately 54 acres of open space areas in order to avoid French Camp Slough. As shown in Figure 2.0-7 in Chapter 2.0, Project Description, the proposed open space area would buffer the Slough on both sides. The width of the buffer would vary depending on the location. Therefore, implementation of the proposed Project would have a **less than significant** impact on riparian habitats or natural communities.

Impact 3.4-8: The proposed Project would not result in interference with the movement of native fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites (Less than Significant)

The CNDDDB record search did not reveal any documented wildlife corridors or wildlife nursery sites on or adjacent to the Project site. Within the site, French Camp Slough provides movement corridors given its more natural condition. This watercourse provides adequate water, sufficient emergent vegetation, but generally lacks appropriate and adequate undisturbed upland habitat. However, this area is considered to be quality habitat for movement of fish species, especially anadromous fish such as the Chinook salmon and steelhead. There are a variety of birds that utilize this area for movement mostly for foraging the abundance of insects that live within this aquatic environment. Upland species such as mammals would also find refuge along the banks of the aquatic feature give the abundance of cover, food, and water resources. As noted above, the Project includes approximately 54 acres of open space areas in order to avoid French Camp Slough. Although an outfall would be constructed along the Slough, the proposed Project would not develop or otherwise disturb this riparian habitat and any use of this area for wildlife movement is not anticipated to be disrupted because the habitat will remain intact. As shown in Figure 2.0-7 in Chapter 2.0, Project Description, the proposed open space area would buffer the Slough on both sides.

Through compliance with the various regulatory permitting activities (including ITMMs) described above and required by the SJMSCP, work buffers and construction setbacks will be established for French Camp Slough within the Project area consistent with the boundary identified to be preserved as open space. The contractor will be required to install an orange protective fencing at the boundary to ensure that construction equipment does not enter the 54 acres of open space during construction. Additionally, the management of water quality through BMPs and NPDES permit requirements is intended to ensure that water quality does not degrade to levels that would interfere or impede fish or wildlife. Implementation of these required measures would ensure that this potential impact is reduced to a *less than significant* level.

Impact 3.4-9: The proposed Project would not conflict with an adopted Habitat Conservation Plan (Less than Significant)

The proposed Project is subject to the SJMSCP. The proposed Project does not conflict with the SJMSCP. Therefore, the proposed Project would have a *less than significant* impact relative to this topic. Mitigation Measure 3.4-1 requires participation in the SJMSCP.

Impact 3.4-10: The proposed Project has the potential to conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (Less than Significant with Mitigation)

The Land Use and Safety Elements of the General Plan establish numerous policies and implementation measures related to biological resources as listed below:

LAND USE ELEMENT POLICIES

LU-5.2. Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development.

- **Consistent:** *There are no known cultural or historic resources on site which would be encroached on or destroyed by the proposed Project. Nevertheless, Section 3.5, Cultural and Tribal Resources, of this EIR includes mitigation measures to be followed should cultural resources be found on-site during construction. Natural resources areas, habitat, and agricultural lands are found on-site. Specifically, French Camp Slough, foraging and nesting habitat for birds, and row crops and orchards are located on the Project site. As noted previously, French Camp Slough would be maintained as open space as part of the proposed Project. Additionally, this section includes mitigation measures to reduce the potential impacts to special-status birds to a less-than-significant level. Further, the Project would be subject to the City and County Right-to-Farm ordinances, which would ensure that the Project does not encroach or destroy agricultural operations in the area.*

LU-5.3. Define discrete and clear city edges that preserve agriculture, open space, and scenic views.

- **Consistent:** *The Project site is located in the southern portion of the City adjacent to SR 99 and the Stockton Airport. The site was anticipated for development of Industrial and other urban uses as part of the City's General Plan. As noted previously, the Project would include creation of 54 acres of open space along and surrounding the Slough in order to avoid disturbance and other urban activities. This scenic open space area would be preserved as part of the Project. However, the remaining agricultural areas on the site would be converted to urban uses as part of the Project. As discussed in Section 3.2, Agricultural Resources, of this EIR, the Envision Stockton 2040 General Plan EIR anticipated development of the Project site as part of the overall evaluation of the buildout of the City. The General Plan EIR determined that impacts associated with the conversion and loss of Important Farmland would be significant and unavoidable. According to the General Plan EIR, although the General Plan includes policies and actions that would reduce and partially offset the conversion of farmland, it designates approximately 16,160 acres of farmlands of concern under CEQA for non-agricultural uses. Because these farmland areas are located near existing urbanized areas, they may not be viable for agricultural operations due to conflicts with nearby urbanized areas. The only way to mitigate this impact would be to prohibit any development on farmland of concern. CEQA does not require that the project be changed in order to avoid an impact, and no additional mitigation is available, resulting in a significant and unavoidable impact.*

SAFETY ELEMENT POLICY

SAF-2.3. Protect the community from potential flood events.

- **Consistent:** *Impacts associated with potential flood events are discussed in Section 3.9, Hydrology and Water Quality, of this EIR. As discussed, a majority of the Project size is located in*

3.4 BIOLOGICAL RESOURCES

FEMA designated Zone AO, where flood depths can reach one or more feet deep. The Hydrologic and Hydraulic Assessment completed for the Project included an analysis to determine potential impacts to the floodplain from placing fill to bring the finished floor elevation to three feet above highest adjacent grade. The Assessment determined that there are no offsite impacts which would cause an increase in water surface greater than 0.05 feet due to Project implementation. (KSN, December 2020). Additionally, the Hydrologic and Hydraulic Assessment also included an evaluation of the proposed flood control system for the Project to determine if the proposed flood control system has sufficient capacity to both hold onsite run off and prevent offsite impacts from a 100-year flood event. According to the Assessment, the results of the analysis indicate that there are no offsite impacts and that the 100-year flood can be contained on site with runoff from the 10-year storm event being held in the north flood control basin (KSN, December 2020). Therefore, the Hydrologic and Hydraulic Assessment notes the applicant shall apply for a CLOMR-F based upon the effective FEMA floodplains, as required by Mitigation Measure 3.9-3. With implementation of this mitigation measure, all potential flood impacts would be less than significant.

MUNICIPAL CODE

The Stockton Municipal Code, Title 16 Development Code protects Heritage Oak Trees through permit requirements. Section 16.130.020 provides the Director with Review Authority for permits to remove heritage trees. The decision of the Director is subject to an appeal to the Council in compliance with Chapter 16.100 (Appeals). (Ord. 015-09 C.S., eff. 12-3-09). Section 16.130.030 provides the permit requirements, and describes the process for approval or denial of a permit application. Section 16.130.040 establishes fines for violation of this requirement. Section 16.130.050 provides exemptions under emergencies. Section 16.130.060 establishes the replacement requirements.

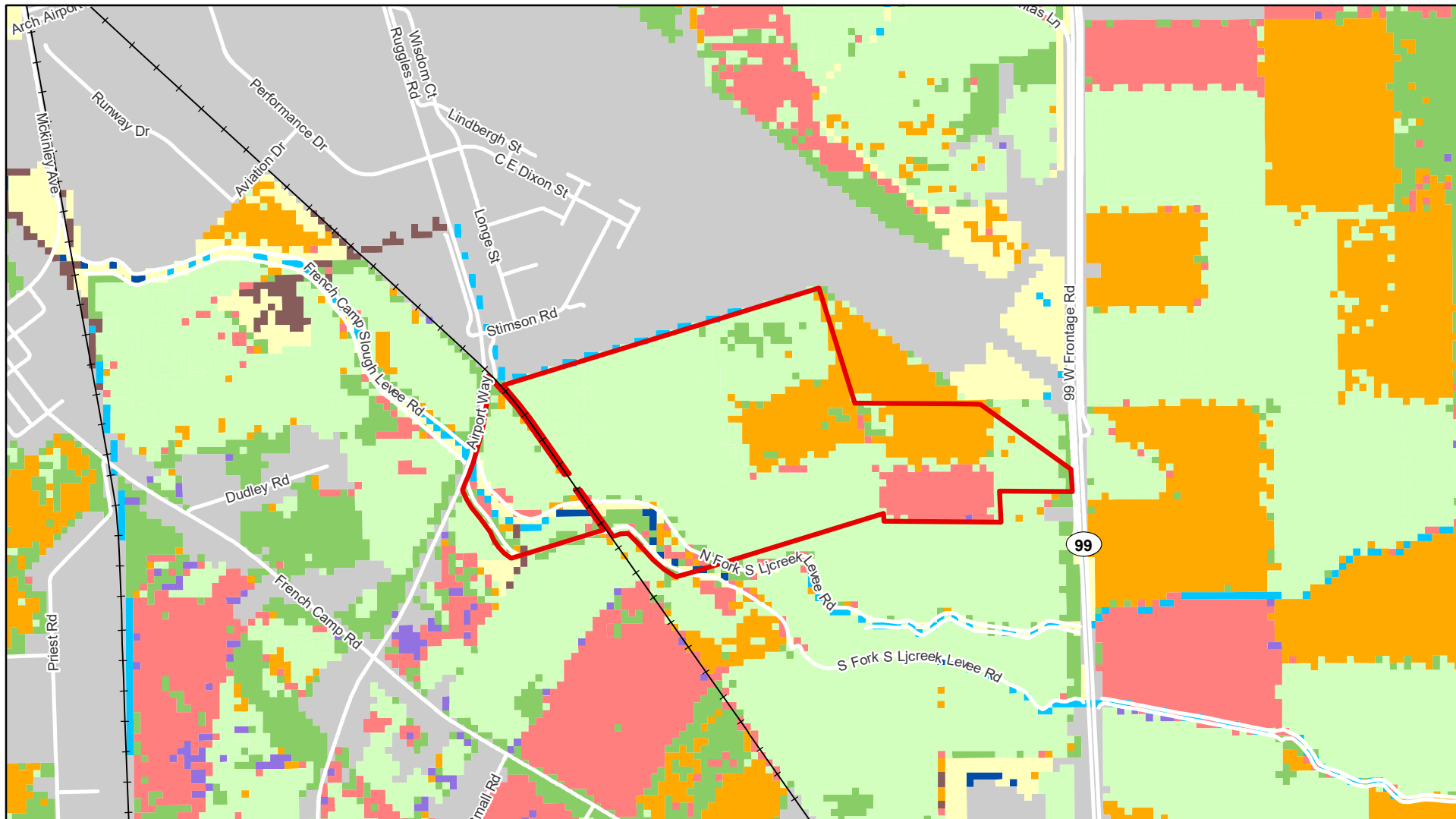
The Project site contains numerous orchard trees in the agricultural areas, and shade trees along French Camp Slough. It may be possible for specific trees to be incorporated into the final design of the development once the more detailed engineering effort begins. For example, the proposed open space areas along French Camp Slough will result in preservation of the shade trees along the Slough. Nevertheless, any Heritage Trees that cannot remain in the final design must be replaced in accordance with Chapter 16.130 of the Municipal Code if deemed applicable at the time of removal. A “Heritage Tree” is defined as: “Any *Quercus lobata* (commonly known as “Valley Oak”), *Quercus agrifolia* (Coast Live Oak), and *Quercus wislizenii* (Interior Live Oak) tree which is located on public or private property within the limits of the City, and which has a trunk diameter of 16 inches or more, measured at 24 inches above actual grade. For Oak trees of the species mentioned above, with multiple trunks, the combined total trunk diameter shall be used for all trunks measuring six (6) inches or greater measured at 24 inches above actual grade.”

The following mitigation measures would require compliance with the Stockton Municipal Code for removal and replacement of Heritage Oak Trees. With the implementation of the following mitigation measures, the proposed Project would have a ***less than significant*** impact relative to this topic.

MITIGATION MEASURE(S)

Mitigation Measure 3.4-4: *If removal of any oak tree on the project site is required, a certified arborist shall survey the oak trees proposed for removal to determine if they are Heritage Trees as defined in Stockton Municipal Code Chapter 16.130. The arborist report with its findings shall be submitted to the City's Community Development Department. If Heritage Trees are determined to exist on the property, removal of any such tree shall require a permit to be issued by the City in accordance with Stockton Municipal Code Chapter 16.130. The permittee shall comply with all permit conditions, including tree replacement at specified ratios.*

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LEGEND

Project Boundary

Land Cover Type (Acres Onsite)

Annual Grassland (8.2 ac)

Pasture

Orchard - Deciduous/Evergreen (32.8 ac)

Cropland (25.8 ac)

Dryland Grain Crops (67.5 ac)

Irrigated Crops - Grain/Row/Field/Hayfield (280.6 ac)

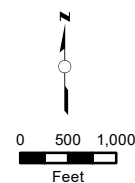
Vineyard (0.2 ac)

Fresh Emergent Wetland (3.1 ac)

Valley Foothill Riparian (0.7 ac)

Riverine (2.9 ac)

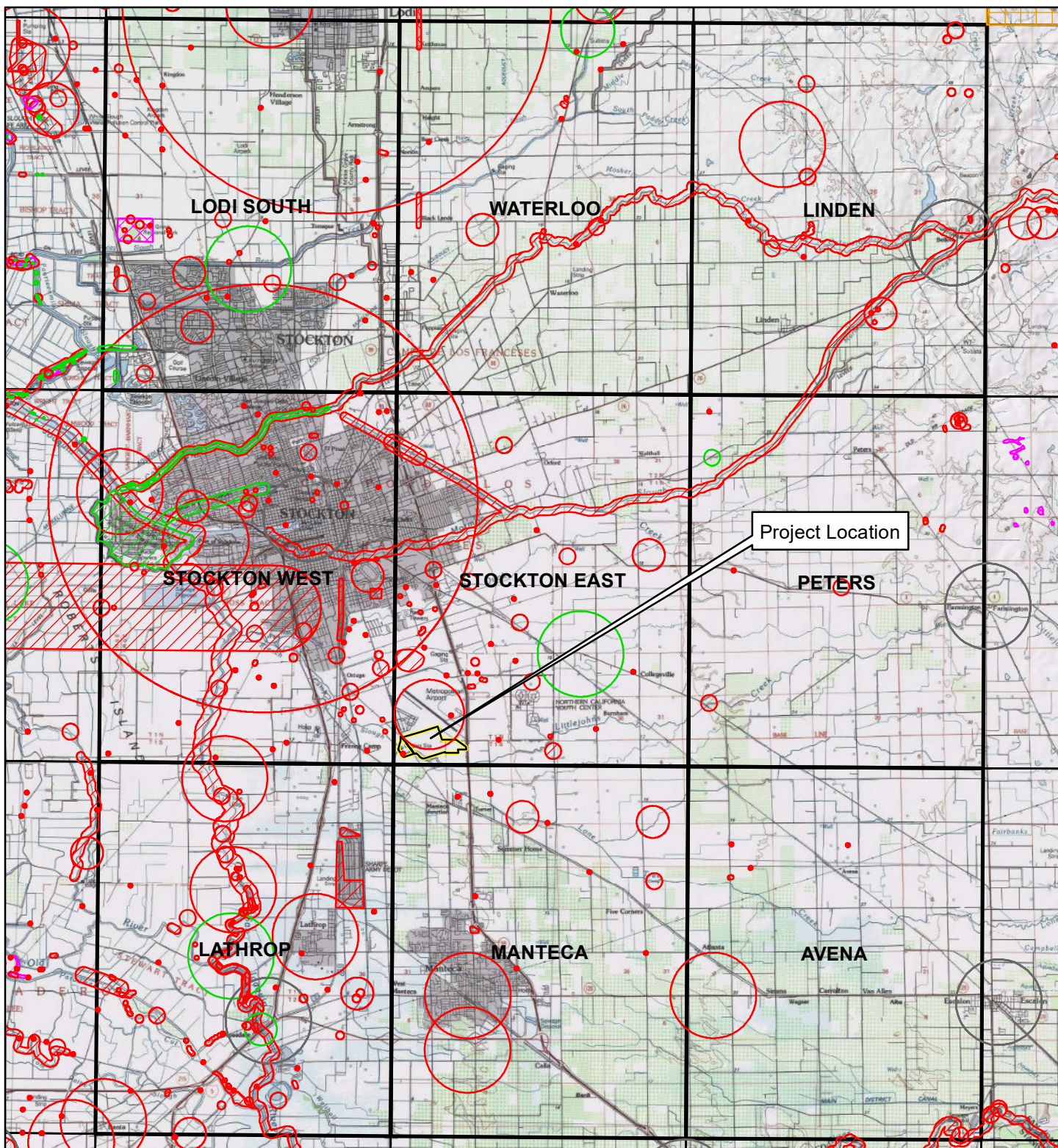
Urban (0.4 ac)



SOUTH STOCKTON COMMERCE CENTER

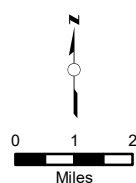
Figure 3.4-1. Land Cover Types

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LEGEND

- | | |
|----------------------|------------------------------------|
| Project Boundary | Animal (non-specific) |
| Plant (80m) | Animal (circular) |
| Plant (specific) | Terrestrial Comm. (specific) |
| Plant (non-specific) | Multiple (specific) |
| Plant (circular) | Multiple (circular) |
| Animal (80m) | Sensitive Environmental Occurrence |
| Animal (specific) | |



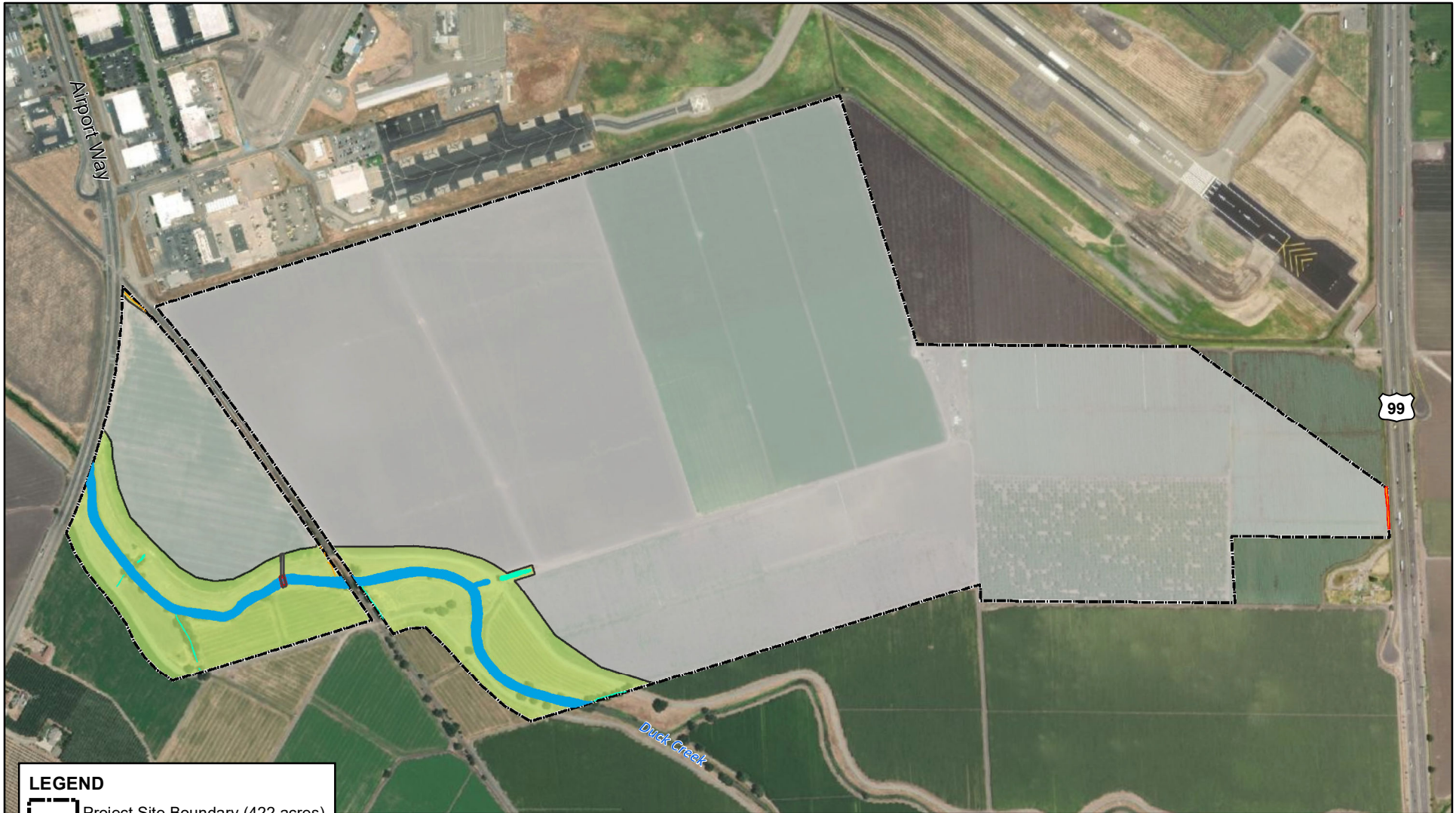
SOUTH STOCKTON COMMERCE CENTER

Figure 3.4-2. California Natural Diversity Database

9-Quad Search

Please Note: the occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.

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LEGEND

Project Site Boundary (422 acres)

Development Area (374 acres)

Avoided Area (48 acres)

Aquatic Resources

Other Waters

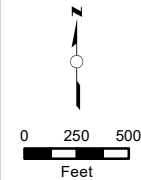
Irrigation Ditch

Perennial Creek

Roadside Ditch

Impacted Aquatic Resources

Waters Type	Impacted	Avoided	Total Acres
<i>Other Waters</i>			
Irrigation Ditch	0.000	0.210	0.210
Perennial Creek	0.036	5.623	5.659
Roadside Ditch	0.007	0.021	0.028
Total	0.043	5.854	5.897



SOUTH STOCKTON COMMERCE CENTER

Figure 3.4-3.
Impacts to Aquatic Resources

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This section provides a discussion of the prehistoric period background, ethnographic background, historic period background, known cultural resources in the region, the regulatory setting, an impact analysis, and mitigation measures. Information in this section is derived primarily from the Determination of Eligibility and Effect for the South Stockton Commerce Center Project (Peak & Associates, Inc., 2020).

Comments were received during the public review period or scoping meeting for the Notice of Preparation (NOP) regarding this topic from the following: Native American Heritage Commission (NAHC) (September 30, 2020) and Northern Valley Yokuts Tribe and Nototomne Cultural Preservation (October 3, 2020). Each of the comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

KEY TERMS

The following key terms are used throughout this section to describe cultural and tribal resources and the framework that regulates them:

Archaeology. The study of historic or prehistoric peoples and their cultures by analysis of their artifacts and monuments.

Complex. A patterned grouping of similar artifact assemblages from two or more sites, presumed to represent an archaeological culture.

Ethnography. The study of contemporary human cultures.

3.5.1 ENVIRONMENTAL SETTING

PROJECT SETTING

Project Site

The proposed Project site is comprised of 422.22 acres located in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport. The Project site is located west of the 99 Frontage Road and State Route (SR) 99 and east of Airport Way. The Union Pacific Railroad (UPRR) extends south from Airport Way bisecting the western portion of the site. French Camp Slough extends southeast from Airport Way across the southwestern portion of the site. It continues east under the UPRR and then south across the southwestern portion of the site, before continuing south off-site. The Project site is comprised of active agricultural fields. The majority of the fields produce watermelons, with a walnut orchard located in the eastern portion of the site. The Project site is relatively flat and ranges in elevation from approximately 14 to 40 feet above mean sea level.

The Project also includes off-site sewer improvements located along and adjacent to existing Project area roadways. The off-site sewer improvements would be located along the western site frontage on Airport Way, head north along Airport Way, and terminate in Airport Way and Industrial Drive to the north. The off-site sewer improvements would be located within the Airport

3.5 CULTURAL AND TRIBAL RESOURCES

Way right-of-way, and adjacent to the roadway in certain limited areas (such as northeast of the Airport Way and Arch Airport Road intersection, and northeast of the Airport Way and Boeing Way intersection).

Surrounding Uses

The Project site is primarily bounded by lands within the County to the north, east and south. Lands within the City of Stockton are located to the west. Uses within the surrounding area include the following:

- North – Rydberg Creek, Army National Guard and Stockton Airport. These uses are located within the County.
- East – Agricultural lands, 99 Frontage Road and SR 99.
- South – Agricultural lands and Duck and Lone Tree Creeks (French Camp Slough).
- West – The UPRR, Airport Way, and agricultural lands.

Project Site Soils

The Project site has two soil series, Jacktone clay and Stockton clay. Jacktone clay is primarily in the northern portion of the Project site with Stockton clay to the south. Both soil series cover about one-half of the Project site. Jacktone clay and Stockton clay are both derived from alluvial sources. They share similar structural characteristics with both being a clay to clay loam about 42 to 60 inches thick and both rest upon a cemented layer.

Jacktone clay soils were deposited sometime between 2,000 to 4,000 years before present in a series of depositional events. Stockton clay was deposited sometime during the previous 2,000 period. Jacktone clay is considered to have high sensitivity and Stockton clay very high sensitivity for the potential to possess buried cultural material given the time period in which they were deposited.

The southwestern portion of the Project site is transected by French Camp Slough. French Camp Slough flows northwest from the Project site about three and one-half miles until it joins Walker Slough and then reaches the San Joaquin River about one-mile further west. The topographic profile of French Camp Slough within, and west of, the Project site shows a gradual decline in elevation of roughly five feet every mile to mile and one-half. There are no elevated areas of higher terrain located within the Project site adjacent to, or near, French Camp Slough.

Both soil series present within the Project site were deposited during a period when there was human activity; as such, both have the potential to possess buried deposits of cultural material. With French Camp Slough located in the far southwestern portion of the Project site, surface water was present that would have enabled some form of temporary or more permanent encampment by prehistoric peoples.

CULTURAL BACKGROUND

Prehistory

The Central Valley region was among the first in the state to attract intensive fieldwork, and research has continued to the present day. This has resulted in a substantial accumulation of data.

In the early decades of the 1900s, E.J. Dawson explored numerous sites near Stockton and Lodi, later collaborating with W.E. Schenck (Schenck and Dawson 1929). By 1933, the focus of work was directed to the Cosumnes locality where survey and excavation studies were conducted by the Sacramento Junior College (Lillard and Purves 1936). Excavation data, in particular from the stratified Windmiller site (CA-Sac-107), suggested two temporally distinct cultural traditions. Later work at other mounds by Sacramento Junior College and the University of California, Berkeley, enabled the investigators to identify a third cultural tradition, intermediate between the previously postulated Early and Late Horizons. The three-horizon sequence, based on discrete changes in ornamental artifacts and mortuary practices, as well as on observed differences in soils within sites (Lillard, Heizer and Fenenga 1939), was later refined by Beardsley (1954). An expanded definition of artifacts diagnostic of each time period was developed, and its application extended to parts of the central California coast. Traits held in common allow the application of this system within certain limits of time and space to other areas of prehistoric central California.

The Windmiller Culture (Early Horizon) is characterized by ventrally-extended burials (some dorsal extensions are known), with westerly orientation of heads; a high percentage of burials with grave goods; frequent presence of red ocher in graves; large projectile points, of which 60 percent are of materials other than obsidian; rectangular *Haliotis* beads; *Olivella* shell beads (types A1a and L); rare use of bone; some use of baked clay objects; and well-fashioned charmstones, usually perforated.

The Cosumnes Culture (Middle Horizon) displays considerable changes from the preceding cultural expression. The burial mode is predominately flexed, with variable cardinal orientation and some cremations present. During the Middle Horizon, there is a lower percentage of burials with grave goods, and ocher staining is common in graves. *Olivella* beads of types C1, F and G predominate, and there is abundant use of green *Haliotis* sp. rather than red *Haliotis* sp. Other characteristic artifacts include perforated and canid teeth; asymmetrical and "fishtail" charmstones, usually unperforated; cobble mortars and evidence of wooden mortars; extensive use of bone for tools and ornaments; large projectile points, with considerable use of rock other than obsidian; and use of baked clay.

The Hotchkiss Culture (Late Horizon) burial pattern retains the use of the flexed mode. There is wide spread evidence of cremation, and lesser use of red ocher, heavy sue of baked clay, *Olivella* beads of Types E and M, extensive use of *Haliotis* ornaments of many elaborate shapes and forms, shaped mortars and cylindrical pestles, bird-bone tubes with elaborate geometric designs, clam shell disc beads, small projectile points indicative of the introduction of the bow and arrow, flanged tubular pipes of steatite and schist, and use of magnesite (Moratto 1984:181-183). The characteristics noted are not all-inclusive, but cover the more important traits.

Schulz (1981), in an extensive examination of the central California evidence for the use of acorns, used the terms Early, Middle and Late Complexes, but the traits attributed to them remain generally the same. While it is not altogether clear, Schulz seemingly uses the term “Complex” to refer to the particular archeological entities (above called “Horizons”) as defined in this region. Ragir's (1972) cultures are the same as Schulz's complexes.

Bennyhoff and Hughes (1984) have presented alternative dating schemes for the Central California Archeological Sequence. The primary emphasis is a more elaborate division of the horizons to reflect what is seen as cultural/temporal changes within the three horizons and a compression of the temporal span.

There have been other chronologies proposed, including Fredrickson (1973), and because it is correlated with Bennyhoff's (1977) work, it does merit discussion. The particular archeological cultural entities Fredrickson has defined, based upon the work of Bennyhoff, are patterns, phases and aspects. Bennyhoff's (1977) work in the Plains Miwok area is the best definition of the Cosumnes District, which likely conforms to Fredrickson's pattern. Fredrickson also proposed periods of time associated heavily with economic modes, which provides a temporal term for comparing contemporary cultural entities. It corresponds with Willey and Phillips' (1958) earlier “tradition”, although it is tied more specifically to the archeological record in California.

Ethnography

The Project site lies within the northern portion of the ethnographic territory of the Yokuts people. The Yokuts were members of the Penutian language family which held all of the Central Valley, San Francisco Bay Area, and the Pacific Coast from Marin County to near Point Sur. The Yokuts differed from other ethnographic groups in California as they had true tribal divisions with group names (Kroeber 1925; Latta 1949). Each tribe spoke a particular dialect, common to its members, but similar enough to other Yokuts that they were mutually intelligible (Kroeber 1925).

The Yokuts held portions of the San Joaquin Valley from the Tehachapi's in the south to Stockton in the north. On the north they were bordered by the Plains Miwok, and on the west by the Sacran or Bay Miwok and Costanoan peoples. Although neighbors were often from distinct language families, differences between the people appear to have been more influenced by environmental factors as opposed to linguistic affinities. Thus, the Plains Miwok were more similar to the nearby Yokuts than to foothill members of their own language group. Similarities in cultural inventory co-varied with distance from other groups and proximity to culturally diverse people. The material culture of the southern San Joaquin Yokuts was therefore more closely related to that of their non-Yokuts neighbors than to that of Delta members of their own language group.

Trade was well developed with mutually beneficial interchange of needed or desired goods. Obsidian, rare in the San Joaquin Valley, was obtained by trade with Paiute and Shoshoni groups on the eastern side of the Sierra Nevada, where numerous sources of this material are located, and to some extent from the Napa Valley to the north. Shell beads, obtained by the Yokuts from coastal people, and acorns, rare in the Great Basin, were among many items exported to the east by Yokuts traders (Davis 1961).

Economic subsistence was based on the acorn, with substantial dependency on gathering and processing of wild seeds and other vegetable foods. The rivers, streams, and sloughs that formed a maze within the valley provided abundant food resources such as fish, shellfish, and turtles. Game, wild fowl, and small mammals were trapped and hunted to provide protein augmentation of the diet. In general, the eastern portion of the San Joaquin Valley provided a lush environment of varied food resources, with the estimated large population centers reflecting this abundance (Cook 1955; Baumhoff 1963).

Settlements were oriented along the water ways and village sites were normally placed adjacent to these features for their nearby water and food resources. House structures varied in size and shape (Latta 1949; Kroeber 1925), with most constructed from the readily available tules found in the extensive marshes of the low-lying valley areas. The housepit depressions for the structures ranged in diameter from three to 18 meters (Wallace 1978:470).

Historic Period

MEXICAN PERIOD

The Project site lies on a portion of the Rancho Campo de los Franceses, the ranch named for the early camp first occupied by French-Canadian trappers employed by the Hudson's Bay Company in 1832. The site of the present-day location of French Camp was the terminus of the Oregon Trail used by the trappers between 1832 and 1845. Charles M. Weber stopped at French Camp in 1841 as part of the Bidwell-Bartelson party, the first of many American wagon trains to enter California. Weber was impressed with the fertility of the land near the San Joaquin River. Moving on to Pueblo de San Jose, Weber became partners with William Gulnac, a French-Canadian (possibly one of the Hudsons Bay Company trappers) who had married a Mexican woman and become a naturalized Mexican citizen. In 1843, Gulnac with Charles Weber, later founder of Stockton, organized a company of 12 men for the purpose of forming an agricultural colony at French Camp. Gulnac filed for a land grant, and was awarded a large tract of land including French Camp and the later site of Stockton by the Mexican government.

Disease, primitive living conditions and less than anticipated agricultural return also discouraged the settlers and Gulnac, who sold his interest in the Rancho to Weber for \$60, the amount of an outstanding grocery bill. Weber, in turn, gave away almost all of the Rancho land in order to attract more settlers (Hoover, Rensch and Rensch 1970:369).

In 1847, with California under American control, Weber laid out the town of Tuleburg, the forerunner of Stockton. Tuleburg was to be the commercial and shipping center for this region. This eventually came to pass with the establishment and success of Stockton, but in 1847 there was little reason to think that any such venture would succeed.

GOLD RUSH AND EARLY AGRICULTURE

Immediately after the Marshall gold discovery in 1848, Weber organized the Stockton Mining and Trading Company and conducted extensive mining on Weber Creek, south of Placerville. Before the Gold Rush fully started, Weber saw that Tuleburg was well situated to be the gateway to the

southern mining district. He returned to the town and in the spring of 1849 had it resurveyed and renamed it Stockton. A year later, the once isolated village had a population of over a thousand, not counting transient miners, and was the County seat of the newly created San Joaquin County. As the population of the mines continued to grow, Stockton became a staging and freighting center and a shipping point for agricultural produce and cattle.

French Camp also became an important staging and freighting station in the early 1850s. Boats landed at the terminus of French Camp Slough, and goods destined for the mining camps were unloaded and freighted up the French Camp Road. In 1850, Major Hammond laid out a town on the site of the camp for Weber, calling it Castoria (“place of beavers”). Noble and Stevinson built an adobe hotel at the site and sold lots (Hoover, Rensch and Rensch 1970).

The decline of mining after the Gold Rush was accompanied by a realization of the rich agricultural potential of the Central Valley. In a short time, ranchers and farmers had drained the lakes and marshes, channelized the sloughs and established controlled irrigation systems to replace the annual flooding that formerly supported the rich valley vegetation. The valley floor of today bears little resemblance, for the most part, to its pre-contact condition. The oak groves are gone and the lakes are dry. The vast marshes, once the refuge for enormous flocks of water fowl, no longer exist. The grazing lands of the elk and the antelope have become cultivated fields, producing a wide variety of crops. The native faunal community, with the exception of burrowing animals, has been replaced by domestic livestock.

RAILROADS

Lathrop first was a station on the Central Pacific, established in 1869 when the last stretch of the transcontinental railroad was built from Sacramento through this region, and crossing the San Joaquin River at Mossdale to reach the Bay Area.

The site of Lathrop was first known as Wilson’s Station, and included a store and a schoolhouse on land belonging to Thomas A. Wilson. Due to conflicts in the City of Stockton that infuriated Leland Stanford, the Central Pacific Railroad switched many operations to Wilson’s Station, later re-named for Charles Lathrop, brother-in-law of Leland Stanford. The town drew significant commerce away for the City of Stockton. The railroad’s machine shops and roundhouse were built here, and the town became an important division point and major stop on the railroad line beginning in 1871. The Visalia Division of the Stockton of the Southern Pacific Railroad was completed at that time, serving the San Joaquin Valley. Lathrop became an important shipping point for agricultural products.

The Tidewater Southern Railway Company began with the consolidation of the Tidewater and Southern Railroad Company, building a line from Stockton southward to Modesto beginning in 1910, and the Tidewater and Southern Transit Company, building in Merced in 1912. John A. Mehling was the promoter and trustee for the early years of the railroad, and worked on land acquisition. In 1912, the electric interurban line opened between Stockton and Modesto, a total of 32 miles. The electric service was abandoned the same year, but retained through the streets of Modesto. An extension was built to Turlock in July 1916. The section was operated with both

electric and steam power, with the first steam power in 1917. The last interurban train ran on this route in May 1932 (Fickewirth 1992: 152).

EARLY OWNERSHIP OF THE PROJECT SITE

The land of the Project site included portions of holdings of three individuals in 1895: P.G. Sharp to the north in sections 26 and 38, J.T. Salmon in sections 27 and 39, and the estate of Cutler Salmon on the east side of the property. In 1890, Cutler Salmon had a holding of 1,006 acres, and he was noted for being the first to discover gas in 1883 under his property while drilling for water.

In 1914, the USGS topographic map indicates no buildings on the Project site, and the only manmade feature was a north-south ditch.

SHARPE ARMY DEPOT

In 1942, the Lathrop Holding and Reconsignment Point was established in the Project vicinity on what had previously been a sheep ranch, holding supplies for shipment through Bay Area ports. As many as 450 railroad cars would be loaded and unloaded each day. The facility has gone through many changes with the changing needs of the military during times of conflict. After the end of World War II, the Depot went through administrative and supply mission changes, and a new name was applied in 1948: Sharpe General Depot. The conflict in Korea brought a demand for increased services as the staffing, shipments, and missions doubled during the three years of the war. The Army curtailed supply operations, and the Sharpe site began providing medical supplies and subsistence items on a larger scale. In 1962, the facility became the Sharpe Army Depot.

In 1965, with the escalation of the war in Vietnam, Sharpe became the major conduit for supplies moving to Southeast Asia. The Sharpe facility has continued to operate with a large part of the staffing switched to the Tracy facility beginning in 1999.

STOCKTON AIRPORT

The area now occupied by Stockton Metropolitan Airport was a typical agricultural area prior to World War I, but the interest in aviation generated by the war soon had an effect on this rural area. By 1925, the area was part of a large agricultural and stock raising operation, the Wilber Salmon Ranch.

In 1926, the City of Stockton was looking for a site for a municipal air field. The Salmon Ranch site was chosen because it was already popular with pilots, it was near the Tidewater and Southern Railroad, and the land was relatively cheap due to the rural location (Stockton Record, July 11, 1964). The City took over Salmon's lease on 23 acres owned by Fred P. Clark and purchased the land two years later. The City graded the runway and built a shed hanger and an office.

The first commercial operation at the airport was the Allen-Lane Flying Service, run by Bert Lane and C. C. Allen. They sold rides around Stockton, charter flights to other cities, ran a flight school and organized air shows. The partners went on to other pursuits in 1929, but a successor company, Pathfinder Flying Service, was formed by former pilots of Allen-Lane. This company, owned first by

3.5 CULTURAL AND TRIBAL RESOURCES

Edward Nightingale and John Knox, then by Edward Wagner, then by Wagner and Henry von Berg, continued to operate out of Stockton Municipal until it was taken over by the military (Bastian 1975:3-5).

With the purchase of the original 23 acres of airport land in 1928, the City built a fifty-foot beacon tower and another hanger. Shortly after that, the City bought two more parcels from Fred Clark to accommodate the hoped-for expansion of commercial ventures at the airport. The Great Depression ended any hope for rapid development of private industry at the airport. Nevertheless, the City continued to look to the future and took advantage of lower prices to purchase an additional 147 acres in 1936, more than doubling the area of the airport. The runway was extended and oiled, sewers and storm drains were installed, and a large adobe hanger was built through initiation of a project under the Work Projects Administration (Bastian 1975:5).

The City's plans for a major municipal airport at the site were temporarily shelved in 1940 when the Army Air Corps took over the airport and began construction of an advanced pilot training school. Plates 1 and 2 show the site of the airport in 1940 before military construction began at the site. Pathfinder Flying Service, still the only major commercial aviation venture located at the airport, moved to Oranges Field, north of town.

The Army required more land for its planned facility. The City was not financially capable of the purchase, so the County took a half interest in the existing property and helped purchase the additional land in a joint venture with the City. At the termination of the lease, the property was to revert to the City/County partnership. The Army immediately razed all of the existing buildings on the property except for the adobe hanger and the Salmon House. The latter was moved off of the property, and the hanger was used by the military (Bastian 1975:8).

The Army Air Corps built three runways in a triangular shape, one of them later widened to 800 feet to allow multiple landings. By 1943, the Stockton Field facility included a road system, about twenty earthen revetments for protecting the aircraft, and 368 buildings and structures. The base was completely mapped by the Office of the Post Engineer.

KNOWN CULTURAL RESOURCES

A summary of the record search, Native American consultation, and field survey that was performed for the Project site is included below.

Record Search

The purpose of the cultural records search is to identify all previously recorded cultural resources (prehistoric and historic archaeological sites, historic buildings, structures, objects, or districts) within the Project site. A record search was conducted for the Project site and a 0.125-mile radius at the Central California Information Center (CCIC) of the California Historical Resources Information System (CHRIS) on June 16, 2020 (Record Search File No.: 11422L; Appendix 2 of Appendix C).

According to the CCIC CHRIS results, the Project site had been surveyed by Peter Jensen in 2000 (SJ-4029). Jensen found no evidence of prehistoric period resources in the Project site; however, a section of the Tidewater and Southern Railroad was recorded (Resource P-39-000015). This railroad line subdivides the Project site.

Native American Consultation

The NAHC was requested to check the Sacred Lands files and provide a list of suitable contacts for further information. Their reply indicated that there are no properties listed in the Sacred Lands files. The NAHC provided a list of individuals and groups to contact regarding the property. Letters were sent to the groups and individuals listed on August 21, 2020. The contacts identified for the Project include: Kathy Perez, North Valley Yokuts Tribe; Timothy Perez, North Valley Yokuts Tribe; and Corrina Gould, The Confederated Tribes of Lisjan.

On August 24, 2020, an email reply was received from Kathy Perez, representing the Northern Valley Yokuts and the Nototomne Cultural Preservation corporation, providing mitigation measures to assist and minimize the impact of inadvertent discoveries during ground disturbance. A second response from Kathy Perez, representing the Northern Valley Yokuts and the Nototomne Cultural Preservation corporation, was received on October 3, 2020. The second response letter requested to observe and participate in all cultural resource surveys, and requested the results of any record searches for the Project. The letter also notes that, if cultural resources are identified within the Project area, their policy requires a tribal monitor present for all ground disturbing activities. Finally, the letter requests that tribal cultural resources be preserved in place and avoided whenever possible. All consultation letters and response letters are included in Appendix 3 of Appendix C.

Copies of all communication may be found in Appendix 3 of Appendix C. Any responses received after the completion of the Determination of Eligibility and Effect for the South Stockton Commerce Center Project will be submitted to the City of Stockton for transmittal to the appropriate agencies/individuals.

Field Assessment

Peak & Associates completed a field survey of the Project site in July and August 2020. Survey of portions of the property were limited by the active agricultural use for an orchard and alfalfa crops.

At time of survey, the Project site contained alfalfa fields, a walnut orchard, small areas of fallow field, and natural landscape. The alfalfa fields were planted in rotation, allowing recently mowed sections to be available for survey at regular intervals. The single walnut orchard was flood-irrigated regularly but allowed to dry thoroughly between floods, making survey possible. The landform is predominantly flat and likely leveled for agriculture. Low berms line both sides of French Camp Slough, which runs through the parcel from the southeast boundary at South Airport Way to the southwest boundary. Several dirt and gravel roads cross the Project site or run along the boundaries.

Soil types noted are mostly silty loam, but some areas are a finer clay-loam, mostly within fifty meters of French Camp Slough. This soil is uniform in a medium-dark brown color and shade. Occasional alluvial deposit pebbles were observed in the fields, but angular and rounded stones used as ballast for the railroad line have been spread widely on both sides of the track. Most of the ballast is of basalt, which can often mimic worked tool-stone. Careful inspection of all rock encountered took place in order to abate misinterpretation. Also used as ballast was a greenish crypto-crystalline silicate, which also was manufactured by a crushing method, resulting in a product which resembles tool-stone. Careful inspection resulted in no observed artifacts.

Survey visibility was good for all areas of the parcel. Mowing and grooming of the fields and orchard, as well as disking of the non-planted areas along the slough provided a clear view of the soil. Soil disturbance was moderate, with few or no rodent dens observed, but plowing and road maintenance allowed for some subsurface inspection. Aside from crops, vegetation includes a sparse riparian zone tight against the slough consisting of tule sedges, occasional oak trees, and other bushes and grasses and trees.

Three-meter-wide transects were used to achieve complete coverage along French Camp Slough, and the southern portion of the Project site. The remainder of the Project site was covered with transects varying in width from 10 to 30 meters.

SURVEY RESULTS

There is no evidence of prehistoric period cultural resources within the Project site. One historic site is present: a section of the Tidewater Southern Railroad, recorded as P-39-000015/CA-SJO-256H.

The resource is a standard gauge railroad now operated by Union Pacific Railway Company. It is located on a corridor established in 1912 for the Tidewater Southern, part of a 39-mile-long interurban railway linking the cities of Modesto and Stockton. The railway was converted into a freight carrying system in the 1930s with the modern track and trestle crossing built during the 1960s and 1970s. The line is still in use.

Approximately 2,800 feet of the railroad line is within the current Project area. This railroad line segment was recorded by Jensen and Associates in 2000. Jensen prepared a site form describing the various elements present in this section of the rail line, with several other sections of the system previously recorded. Because the original components of the rail system have been changed and/or altered, this segment of the rail line is not considered eligible for the National Register of Historic Places (NRHP).

3.5.2 REGULATORY SETTING

FEDERAL

National Historic Preservation Act

The National Historic Preservation Act was enacted in 1966 as a means to protect cultural resources that are eligible to be listed on the NRHP. The law sets forth criterion that is used to evaluate the eligibility of cultural resources. The NRHP is composed of districts, sites, buildings, structures, objects, architecture, archaeology, engineering, and culture that are significant to American History.

Virtually any physical evidence of past human activity can be considered a cultural resource. Although not all such resources are considered to be significant and eligible for listing, they often provide the only means of reconstructing the human history of a given site or region, particularly where there is no written history of that area or that period. Consequently, their significance is judged largely in terms of their historical or archaeological interpretive values. Along with research values, cultural resources can be significant, in part, for their aesthetic, educational, cultural and religious values.

National Register of Historic Places

The eligibility criteria for the NRHP are as follows (36 CFR 60.4):

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess aspects of integrity of location, design, setting, materials, workmanship, feeling, association, and

- (A) that are associated with events that have made a significant contribution to the broad patterns of our history and cultural heritage; or*
- (B) that are associated with the lives of persons significant in our past; or*
- (C) that embody the distinctive characteristics of a type, period, region, or method of construction, or that represent the work of a master, or that possess high artistic values or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
- (D) that have yielded, or may be likely to yield, information important in prehistory or history.*

American Indian Religious Freedom Act and Native American Graves and Repatriation Act

The American Indian Religious Freedom Act recognizes that Native American religious practices, sacred sites, and sacred objects have not been properly protected under other statutes. It establishes as national policy that traditional practices and beliefs, sites (including right of access), and the use of sacred objects shall be protected and preserved. Additionally, Native American remains are protected by the Native American Graves and Repatriation Act of 1990.

Other Federal Legislation

Historic preservation legislation was initiated by the Antiquities Act of 1966, which aimed to protect important historic and archaeological sites. It established a system of permits for conducting archaeological studies on federal land, as well as setting penalties for noncompliance. This permit process controls the disturbance of archaeological sites on federal land. New permits are currently issued under the Archaeological Resources Protection Act (ARPA) of 1979. The purpose of ARPA is to enhance preservation and protection of archaeological resources on public and Native American lands. The Historic Sites Act of 1935 declared that it is national policy to "Preserve for public use historic sites, buildings, and objects of national significance."

STATE

California Register of Historic Resources

The CRHR was established in 1992 and codified in the Public Resource Code §5020, 5024 and 21085. The law creates several categories of properties that may be eligible for the CRHR. Certain properties are included in the program automatically, including: properties listed in the NRHP; properties eligible for listing in the NRHP; and certain classes of State Historical Landmarks. Determining the CRHR eligibility of historic and prehistoric properties is guided by CCR §§15064.5(b) and Public Resources Code (PRC) §§21083.2 and 21084.1.

Cultural resources, under CRHR guidelines, are defined as buildings, sites, structures, or objects that may have historical, architectural, archaeological, cultural, or scientific importance. A cultural resource may be eligible for listing on the CRHR if it:

- is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- is associated with the lives of persons important in our past;
- embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual or possesses high artistic values; or
- has yielded, or may be likely to yield, information important in prehistory or history.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) Guidelines §15064.5 provides guidance for determining the significance of impacts to archaeological and historical resources. Demolition or material alteration of a historical resource, including archaeological sites, is generally considered a significant impact. Determining the CRHR eligibility of historic and prehistoric properties is guided by CCR §§15064.5(b) and PRC §§21083.2 and 21084.1.

CEQA also provides for the protection of Native American human remains (CCR §15064.5[d]). Native American human remains are also protected under the Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001 et seq.), which requires federal agencies and certain recipients of federal funds to document Native American human remains and cultural items within

their collections, notify Native American groups of their holdings, and provide an opportunity for repatriation of these materials. This act also requires plans for dealing with potential future collections of Native American human remains and associated funerary objects, sacred objects, and objects of cultural patrimony that might be uncovered as a result of development projects overseen or funded by the federal government.

If a prehistoric or historic period cultural resource does not meet any of the four CRHR criteria, but does meet the definition of a “unique” site as outlined in PRC §21083.2, it may still be treated as a significant resource if it is: an archaeological artifact, object or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- it contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information,
- it has a special and particular quality such as being the oldest of its type or the best available example of its type, or
- it is directly associated with a scientifically recognized important prehistoric or historic event.

California Health and Safety Code

Section 7050.5 of the California Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission. The CEQA Guidelines (Section 15064.5) specify the procedures to be followed in case of the discovery of human remains on non-federal land. The disposition of Native American burials falls within the jurisdiction of the NAHC.

Senate Bill 18 (Burton, Chapter 905, Statutes 2004)

SB 18, authored by Senator John Burton and signed into law by Governor Arnold Schwarzenegger in September 2004, requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places (“cultural places”) through local land use planning. This legislation, which amended §65040.2, §65092, §65351, §65352, and §65560, and added §65352.3, §653524, and §65562.5 to the Government Code; also requires the Governor’s Office of Planning and Research to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.).

Assembly Bill 978

In 2001, AB 978 expanded the reach of Native American Graves Protection and Repatriation Act of 1990 and established a state commission with statutory powers to assure that federal and state laws regarding the repatriation of Native American human remains and items of patrimony are fully complied with. In addition, AB 978 also included non-federally recognized tribes for repatriation.

Assembly Bill 52

AB 52, approved in September 2014, creates a formal role for California Native American tribes by creating a formal consultation process and establishing that a substantial adverse change to a tribal cultural resource has a significant effect on the environment. Tribal cultural resources are defined as:

- 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - A) Included or determined to be eligible for inclusion in the CRHR;
 - B) Included in a local register of historical resources as defined in PRC Section 5020.1(k).
- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1 (c). In applying the criteria set forth in PRC Section 5024.1 (c) the lead agency shall consider the significance of the resource to a California Native American tribe.

A cultural landscape that meets the criteria above is also a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. In addition, a historical resource described in PRC Section 21084.1, a unique archaeological resource as defined in PRC Section 21083.2(g), or a “non-unique archaeological resource” as defined in PRC Section 21083.2(h) may also be a tribal cultural resource if it conforms with above criteria.

AB 52 requires a lead agency, prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation.

LOCAL

Envision Stockton 2040 General Plan

The Envision Stockton 2040 General Plan includes several policies and actions that are relevant to cultural and tribal resources. General Plan policies and actions applicable to the Project are identified below:

POLICIES: LAND USE ELEMENT

- LU-3.1. Ensure that exterior remodels and the siting, scale, and design of new development are compatible with surrounding and adjacent buildings, public spaces, and cultural and historic resources.
- LU-5.2. Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development.

ACTIONS: LAND USE ELEMENT

- LU-3.1E. Maintain and periodically update the City's historical resources inventory and adopt a priority list to protect the most important resources.
- LU-5.2D. Require the following tasks by a qualified archaeologist or paleontologist prior to project approval:
 - Conduct a record search at the Central California Information Center located at California State University Stanislaus, the University of California Museum of Paleontology at Berkeley, and other appropriate historical or archaeological repositories.
 - Conduct field surveys where appropriate.
 - Prepare technical reports, where appropriate, meeting California Office of Historic Preservation or other appropriate standards.
 - Where development cannot avoid an archaeological or paleontological deposit, prepare a treatment plan in accordance with appropriate standards, such as the Secretary of the Interior's Standards for Treatment of Archaeological Sites.
- LU-5.2E. Continue to consult with Native American representatives, including through early coordination, to identify locations of importance to Native Americans, including archaeological sites and traditional cultural properties.
- LU-5.2F. If development could affect a tribal cultural resource, require the developer to contact an appropriate tribal representative to train construction workers on appropriate avoidance and minimization measures, requirements for confidentiality and culturally appropriate treatment, other applicable regulations, and consequences of violating State laws and regulations.
- LU-5.2G. Comply with appropriate State and federal standards to evaluate and mitigate impacts to cultural resources, including tribal, historic, archaeological, and paleontological resources.

City of Stockton Municipal Code

Section, 16.36.050, Cultural Resources, of the Stockton Municipal Code notes that if a historical or archaeological resource or human remains may be impacted by a development project requiring a discretionary land use permit, the Secretary of the Cultural Heritage Board (Board) shall be notified, any survey needed to determine the significance of the resource shall be conducted, and the proper environmental documents shall be prepared. In addition:

3.5 CULTURAL AND TRIBAL RESOURCES

- A. Historical Resources. Resources that have been identified as a landmark or part of a historic district in compliance with Chapter 16.220 (Cultural Resources) shall require a certificate of appropriateness (Section 16.220.060) if any exterior changes to the resource are proposed.
- B. Archaeological Resources. In the event that archaeological resources are discovered during any construction, construction activities shall cease, and the Community Development Department (Department) shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may occur in compliance with State and federal law.
- C. Human Remains. In the event human remains are discovered during any construction, construction activities shall cease, and the County Coroner and Director shall be notified immediately in compliance with CEQA Guidelines 15064.5 (d). A qualified archaeologist shall be contacted to evaluate the situation. If the human remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify the most likely descendent of the Native American to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

3.5.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project is considered to have a significant impact on cultural or tribal resources if it will:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;
- Disturb any human remains, including those interred outside of formal cemeteries;
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k);
 - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.

IMPACTS AND MITIGATION MEASURES

Impact 3.5-1: Project implementation would not cause a substantial adverse change to a significant historical resource, as defined in CEQA Guidelines §15064.5 (Less than Significant)

The Project site encompasses approximately 422.22 acres of undeveloped land previously used for agricultural purposes. The off-site sewer improvements would be located within the Airport Way right-of-way, and adjacent to the roadway in certain limited areas (such as northeast of the Airport Way and Arch Airport Road intersection, and northeast of the Airport Way and Boeing Way intersection). There are no buildings or structures located on-site. A CHRIS search was requested from the CCIC, which included the Project site and a 0.125-mile radius (CCIC File #11422L). According to the CCIC CHRIS results, the Project site had been surveyed by Peter Jensen in 2000 (SJ-4029). Jensen found no evidence of prehistoric period resources in the Project site; however, a section of the Tidewater and Southern Railroad was recorded (Resource P-39-000015). This railroad line subdivides the Project site.

The resource is a standard gauge railroad now operated by Union Pacific Railway Company. It is located on a corridor established in 1912 for the Tidewater Southern, part of a 39-mile-long interurban railway linking the cities of Modesto and Stockton. The railway was converted into a freight carrying system in the 1930s with the modern track and trestle crossing built during the 1960s and 1970s. The line is still in use.

Approximately 2,800 feet of the railroad line is within the current Project area. The proposed Project mostly avoids any impact to the railroad line. The proposed grade-separated overpass of the UPRR line effectively avoids any direct impact at that location. The only location where there is an effect on the railroad is the location where the project proposed to add a railroad spur line, which would extend east from the UPRR along the Project site's northern edge providing rail access to the project parcels.

This railroad line segment was recorded by Jensen and Associates in 2000. Jensen prepared a site form describing the various elements present in this section of the rail line, with several other sections of the system previously recorded. Because the original components of the rail system have been changed and/or altered, this segment of the rail line is not considered eligible for the NRHP. As such, the Project site does not contain a "historical resource" as defined in CEQA Guidelines Section 15064.5. Construction of a railroad spur, as well as the railroad overpass, would have a ***less than significant*** impact on historical resources.

Impact 3.5-2: Project implementation has the potential to cause a substantial adverse change to a significant archaeological resource, as defined in CEQA Guidelines §15064.5, or a significant tribal cultural resource, as defined in Public Resources Code §21074 (Less than Significant with Mitigation)

The section of French Camp Slough within the Project site is not associated with any other salient feature such as raised topography and is located over four miles inland from the San Joaquin River. Given the age of the sediment and presence of French Camp Slough within the southwestern portion of the Project site, there is a moderate potential for encountering buried prehistoric period resources for the portion of the Project site bordering or within about 500 feet from French Camp Slough. There is a low potential for encountering buried prehistoric period resources for the remaining portion of the Project site.

The Project site is located in an area known to have archaeological, cultural, and tribal cultural resources. As noted above, a CHRIS search was requested from the CCIC, which included the Project site and a 0.125-mile radius (CCIC File #11422L). The results indicated that the Project site does not contain any recorded prehistoric resources. Additionally, a letter was sent to the NAHC requesting a check of the Sacred Lands files. The Sacred Lands file check failed to reveal any resources on the Project site. The NAHC also provided a list of individuals and tribal groups to contact regarding the site.

As noted previously, letters were sent to the groups and individuals listed on August 21, 2020. The contacts identified for the Project include: Kathy Perez, North Valley Yokuts Tribe; Timothy Perez, North Valley Yokuts Tribe; and Corrina Gould, The Confederated Tribes of Lisjan.

On August 24, 2020, an email reply was received from Kathy Perez, representing the Northern Valley Yokuts and the Nototomne Cultural Preservation corporation, providing mitigation measures to assist and minimize the impact of inadvertent discoveries during ground disturbance. A second response from Kathy Perez, representing the Northern Valley Yokuts and the Nototomne Cultural Preservation corporation, was received on October 3, 2020. The second response letter requested to observe and participate in all cultural resource surveys, and requested the results of any record searches for the Project. The letter also notes that, if cultural resources are identified within the Project area, their policy requires a tribal monitor present for all ground disturbing activities. Finally, the letter requests that tribal cultural resources be preserved in place and avoided whenever possible. All consultation letters and response letters are included in Appendix 3 of Appendix C.

As with most projects in the region that involve ground-disturbing activities, there is the potential for discovery of a previously unknown archaeological resources and cultural resources, including prehistoric or historic artifacts. Implementation of Mitigation Measures 3.5-1 through 3.5-3 would ensure that the potential impact to archaeological, cultural, and tribal resources is ***less than significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.5-1: *Prior to any ground-disturbing activities on the Project site, a qualified archaeologist and native American monitor shall conduct pre-construction worker cultural resources sensitivity training. The training session shall focus on the recognition of the types of historical and cultural, including Native American, resources that could be encountered, procedures to be followed if resources are found, and pertinent laws protecting these resources. Those in attendance shall be recorded, with records maintained on-site. Any new workers that were not part of the initial training shall be required to undergo a new training session.*

Mitigation Measure 3.5-2: *If any cultural resources, including prehistoric or historic artifacts, or other indications of archaeological resources, are found during grading and construction activities during any phase of the Project, all work shall be halted immediately within a 200-foot radius of the discovery until an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, has evaluated the find(s).*

Work shall not continue at the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially significant or eligible for listing on the NRHP or CRHR; or 3) not a significant Public Trust Resource.

If Native American resources are identified, a Native American monitor, following the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites established by the Native American Heritage Commission, may also be required and, if required, shall be retained at the Project applicant's expense.

Mitigation Measure 3.5-3: *If human remains are discovered during the course of construction during any phase of the Project, work shall be halted at the site and at any nearby area reasonably suspected to overlie adjacent human remains until the San Joaquin County Coroner has been informed and has determined that no investigation of the cause of death is required. If the remains are of Native American origin, either of the following steps will be taken:*

- *The coroner shall contact the Native American Heritage Commission in order to ascertain the proper descendants from the deceased individual. The coroner shall make a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, which may include obtaining a qualified archaeologist or team of archaeologists to properly excavate the human remains.*
- *The landowner shall retain a Native American monitor, and an archaeologist, if recommended by the Native American monitor, and rebury the Native American human remains and any associated grave goods, with appropriate dignity, on the property and in a location that is not subject to further subsurface disturbance when any of the following conditions occurs:*
 - *The Native American Heritage Commission is unable to identify a descendent.*

- *The descendant identified fails to make a recommendation.*
- *The City of Stockton or its authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.*

Impact 3.5-3: Project implementation has the potential to disturb human remains, including those interred outside of formal cemeteries (Less than Significant with Mitigation)

Indications suggest that humans have occupied San Joaquin County for over 10,000 years and it is not always possible to predict where human remains may occur outside of formal burials. Therefore, excavation and construction activities, regardless of depth, may yield human remains that may not be interred in marked, formal burials.

Under CEQA, human remains are protected under the definition of archaeological materials as being “any evidence of human activity.” Additionally, Public Resources Code Section 5097 has specific stop-work and notification procedures to follow in the event that human remains are inadvertently discovered during Project implementation.

While no human remains are documented on or near the Project site, implementation of the following mitigation measure would ensure that all construction activities which inadvertently discover human remains implement state-required consultation methods to determine the disposition and historical significance of any discovered human remains. The following mitigation measure would reduce this impact to a ***less-than-significant*** level.

MITIGATION MEASURE(S)

Implement Mitigation Measure 3.5-3.

The purpose of this section is to disclose and analyze the potential impacts associated with the geology of the Project site and regional vicinity, and to analyze issues such as the potential exposure of people and property to geologic hazards, landform alteration, and erosion. This section is based in part on the following:

- *Envision Stockton 2040 General Plan* (City of Stockton, December 2018);
- *Envision Stockton 2040 General Plan Update Draft Environmental Impact Report* (City of Stockton, June 2018);
- *California Geological Survey (CGS) Information Warehouse: Regulatory Maps* (California Department of Conservation, 2020);
- *City of Stockton Municipal Code; Natural Resources Conservation Service (NRCS) Web Soil Survey* (NRCS, 2020);
- *Custom Soils Report for San Joaquin County, California* (NRCS, 2020); and
- *Interactive Fault Map provided by the U.S. Geological Survey* (USGS, 2020).

Comments were received during the public review period or scoping meeting for the Notice of Preparation. One comment was received regarding this topic from the California Geologic Energy Management Division (October 10, 2020), which is addressed within this section. Full comments received are included in Appendix A.

As discussed in the Initial Study prepared for the proposed Project, the proposed Project would connect to the municipal sewer system for wastewater disposal. Septic tanks or septic systems are not proposed as part of the Project. Additionally, there are no significant deposits of mineral resources located on the Project site, as delineated by the Mineral Resources and Mineral Hazards Mapping Program (MRMHMP). The Project site is not designated as a Mineral Resource Zone (MRZ). As such, these CEQA topics will not be further discussed.

3.6.1 ENVIRONMENTAL SETTING

GEOLOGIC SETTING

Regional Geology

The Project site lies in the San Joaquin Valley in central California. The San Joaquin Valley is located in the southern portion of the Great Valley Geomorphic Province. The Great Valley, also known as the Central Valley, is a topographically flat, northwest-trending, structural trough (or basin) about 50 miles wide and 450 miles long. It is bordered by the Tehachapi Mountains on the south, the Klamath Mountains on the north, the Sierra Nevada on the east, and the Coast Ranges on the west. The northern and southern portions of the Great Valley are referred to as the Sacramento Valley and San Joaquin Valley, respectively; with the Sacramento River draining areas to the north and the San Joaquin River draining areas to the south.

The San Joaquin Valley (Valley) is filled with thick sedimentary rock sequences that were deposited as much as 130 million years ago. This geologic unit is commonly referred to as the Great Valley Sequence. Large alluvial fans have developed on each side of the Valley. The larger and more

3.6 GEOLOGY AND SOILS

gently sloping fans are on the east side of the Valley, and overlie metamorphic and igneous basement rocks. These basement rocks are exposed in the Sierra Nevada foothills and consist of meta-sedimentary, volcanic, and granitic rocks.

Sediments deposited in the vicinity of Stockton were derived from Sierra Nevada bedrock, and from volcanic activity that occurred in the Sierra Nevada region during the Holocene to Tertiary periods (3 to 38 million years ago). These Tertiary-aged sediments form the principal groundwater aquifers of the Central Valley. The most recent deposits in the area are floodplain deposits consisting of clay, silt, and some sand (City of Stockton, 2007).

Local Setting

The proposed Project site is comprised of 422.22 acres located in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport. The Union Pacific Railroad (UPRR) extends south from Airport Way bisecting the western portion of the site. French Camp Sough extends southeast from Airport Way across the southwestern portion of the site. It continues east under the UPRR and then south across the southwestern portion of the site, before continuing south off-site. Figures 2.0-1 and 2.0-2 in Chapter 2.0, Project Description, illustrate the regional location and Project vicinity.

The Project site is relatively flat and ranges in elevation from approximately 14 to 40 feet above mean sea level. The Project site is comprised of active agricultural fields. The agricultural lands on the Project site have been used historically for intensive agricultural purposes. The majority of the fields produce watermelons, with a walnut orchard located in the eastern portion of the site. The Project site is adjacent to other agricultural land to the east, south, and west, as well as the Army National Guard and Stockton Airport to the north.

The Project also includes off-site sewer improvements located along and adjacent to existing Project area roadways. The off-site sewer improvements would be located along the western site frontage on Airport Way, head north along Airport Way, and terminate in Airport Way and Industrial Drive to the north. The off-site sewer improvements would be located within the Airport Way right-of-way, and adjacent to the roadway in certain limited areas (such as northeast of the Airport Way and Arch Airport Road intersection, and northeast of the Airport Way and Boeing Way intersection).

A Custom Soil Survey was completed for the Project site using the NRCS Web Soil Survey program. The NRCS Soils Map provided in Figure 3.2-1 in Section 3.2, Agricultural Resources, identifies the type and range of soils found in the Project site, which is summarized below in Table 3.6-1.

TABLE 3.6-1: PROJECT SITE SOILS

UNIT SYMBOL	NAME	ACRES IN AOI	PERCENT OF AOI
173	Hollenbeck silty clay, 0 to 2 percent slopes	0.2	0.05%
250	Stockton clay, 0 to 2 percent slopes	158.4	37.90%
180	Jacktone clay, 0 to 2 percent slopes	259.3	62.05%

NOTE: THIS TABLE DOES NOT INCLUDE THE 4.3 ACRES OF WATER WITHIN THE AOI.

SOURCE: NRCS CUSTOM SOIL SURVEY 2020.

Hollenbeck silty clay. This series consists of moderately well drained soils on basin rims and interfan basins. These soils are deep to a hardpan and are formed in alluvium derived from mixed rock sources. Slopes range from 0 to 2 percent. As shown in Table 3.6-1, 0.05 percent of the site soils are Hollenbeck silty clay soils. This soil type is located in small portion south of North Fork South Ljccreek Levee Road along the southern boundary of the Project site.

Jacktone clay. This series consists of somewhat poorly drained soils in basins. These soils are artificially drained and are moderately deep to a hardpan. Slopes range from 0 to 2 percent. This series is characterized as poorly drained, slow runoff, high shrink/swell potential, and permeability is slow. As shown in Table 3.6-1, 62.05 percent of the site soils are Jacktone clay soils. This soil type is located throughout the northern portion of the Project site, except in portions of the northeastern corner of the site.

Stockton clay. This series consists of somewhat poorly drained soils in basins. These soils are artificially drained and are deep to a hardpan. Stockton clay is formed in alluvium derived from mixed rock sources. Slope ranges from 0 to 2 percent. This series is characterized as poorly drained, slow runoff, high shrink/swell potential, and permeability is slow. As shown in Table 3.6-1, 37.9 percent of the site soils are Stockton clay soils. This soil type is located throughout the southern portion and northeastern corner of the Project site, except in portions of the southwestern corner of the site.

FAULTS AND SEISMICITY

Faults

A fault is a fracture in the crust of the earth along which rocks on one side have moved relative to those on the other side. A fault trace is the line on the earth's surface defining the fault. Displacement of the earth's crust along faults releases energy in the form of earthquakes and in some cases in fault creep. Most faults are the result of repeated displacements over a long period of time.

Surface rupture occurs when movement on a fault deep within the earth breaks through to the surface. Surface ruptures have been known to extend up to 50 miles with displacements of an inch to 20 feet. Fault rupture almost always follows preexisting faults, which are zones of weakness. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Sudden displacements are more damaging to structures because they are accompanied by shaking.

The State of California designates faults as active, potentially active, and inactive depending on how recent the movement that can be substantiated for a fault. Table 3.6-2 presents the California fault activity rating system.

TABLE 3.6-2: FAULT ACTIVITY RATING

<i>FAULT ACTIVITY RATING</i>	<i>GEOLOGIC PERIOD OF LAST RUPTURE</i>	<i>TIME INTERVAL (YEARS)</i>
Active (A)	Holocene	Within last 11,000 years
Potentially Active (PA)	Quaternary	11,000-1.6 Million Years
Inactive (I)	Pre-Quaternary	Greater than 1.6 Million

SOURCE: CALIFORNIA GEOLOGICAL SURVEY

Figure 3.6-1 provides a map of known area faults. No known faults traverse through the Stockton Planning Area; however, the Project does lie within a seismically active region. The U.S. Geological Survey identifies the potential seismic source within 32.2 kilometers (20 miles) of the Project site. Three of the closest known faults classified as active by the California Geological Survey include the Vernalis Fault east of the Tracy, located approximately 10 miles to the southwest of the site, the San Joaquin Fault southeast of Tracy, located approximately 18.8 miles southwest of the site, and the Great Valley Thrust Fault System south of Tracy, located approximately 19.5 miles southwest of the site. Other faults that could potentially affect the proposed Project include the Midway Fault, the Midland Fault, the Black Butte Fault, Corral Hollow-Carnegie Fault, the Greenville Fault, and the Foothills Fault System.

Seismicity

The amount of energy available to a fault is determined by considering the slip-rate of the fault, its area (fault length multiplied by down-dip width), maximum magnitude, and the rigidity of the displaced rocks. These factors are combined to calculate the moment (energy) release on a fault. The total seismic energy release for a fault source is sometimes partitioned between two different recurrence models, the characteristic and truncated Gutenberg-Richter (G-R) magnitude-frequency distributions. These models incorporate our knowledge of the range of magnitudes and relative frequency of different magnitudes for a particular fault. The partition of moment and the weights for multiple models are given in the following summary.

Earthquakes are generally expressed in terms of intensity and magnitude. Intensity is based on the observed effects of ground shaking on people, buildings, and natural features. By comparison, magnitude is based on the amplitude of the earthquake waves recorded on instruments, which have a common calibration. The Richter scale, a logarithmic scale ranging from 0.1 to 9.0, with 9.0 being the strongest, measures the magnitude of an earthquake relative to ground shaking. Table 3.6-3 provides a description and a comparison of intensity and magnitude.

TABLE 3.6-3: MODIFIED MERCALLI INTENSITY SCALE FOR EARTHQUAKES

<i>RICHTER MAGNITUDE</i>	<i>MODIFIED MERCALLI</i>	<i>EFFECTS OF INTENSITY</i>
0.1 – 0.9	I	Earthquake shaking not felt
1.0 – 2.9	II	Shaking felt by those at rest.
3.0 – 3.9	III	Felt by most people indoors, some can estimate duration of shaking.
4.0 – 4.5	IV	Felt by most people indoors. Hanging objects rattle, wooden walls and frames creak.
4.6 – 4.9	V	Felt by everyone indoors, many can estimate duration of shaking. Standing autos rock. Crockery clashes, dishes rattle and glasses clink. Doors open, close and swing.
5.0 – 5.5	VI	Felt by all who estimate duration of shaking. Sleepers awaken, liquids spill, objects are displaced, and weak materials crack.
5.6 – 6.4	VII	People frightened and walls unsteady. Pictures and books thrown, dishes and glass are broken. Weak chimneys break. Plaster, loose bricks and parapets fall.
6.5 – 6.9	VIII	Difficult to stand. Waves on ponds, cohesionless soils slump. Stucco and masonry walls fall. Chimneys, stacks, towers, and elevated tanks twist and fall.
7.0 – 7.4	IX	General fright as people are thrown down, hard to drive. Trees broken, damage to foundations and frames. Reservoirs damaged, underground pipes broken.
7.5 – 7.9	X	General panic. Ground cracks, masonry and frame buildings destroyed. Bridges destroyed, railroads bent slightly. Dams, dikes and embankments damaged.

<i>RICHTER MAGNITUDE</i>	<i>MODIFIED MERCALLI</i>	<i>EFFECTS OF INTENSITY</i>
8.0 – 8.4	XI	Large landslides, water thrown, general destruction of buildings. Pipelines destroyed, railroads bent.
8.5 +	XII	Total nearby damage, rock masses displaced. Lines of sight/level distorted. Objects thrown into air.

SOURCE: UNITED STATES GEOLOGICAL SURVEY

According to the California Geological Survey's Probabilistic Seismic Hazard Assessment Program, San Joaquin County is considered to be within an area that is predicted to have a 10 percent probability that a seismic event would produce horizontal ground shaking of 10 to 20 percent within a 50-year period. This level of ground shaking correlates to a Modified Mercalli intensity of V to VII, light to strong.

Alquist-Priolo Special Study Zone

The California legislature passed the Alquist-Priolo Special Studies Zone Act in 1972 to address seismic hazards associated with faults and to establish criteria for developments for areas with identified seismic hazard zones. The California Geologic Survey (CGS) evaluates faults with available geologic and seismologic data and determines if a fault should be zoned as active, potentially active, or inactive. If CGS determines a fault to be active, then it is typically incorporated into a Special Studies Zone in accordance with the Alquist-Priolo Earthquake Hazard Act. Alquist-Priolo Special Study Zones are usually one-quarter mile or less in width and require site-specific evaluation of fault location and require a structure setback if the fault is found traversing a project site. The Project site is not within an Alquist-Priolo Special Study Zone. The nearest Alquist-Priolo fault zone, the Greenville fault zone, is located approximately 26 miles southwest of the Project site.

SEISMIC HAZARDS

Seismic Ground Shaking

The potential for seismic ground shaking in California is expected. As a result of the foreseeable seismicity in California, the State requires special design considerations for all structural improvements in accordance with the seismic design provisions in the California Building Code. These seismic design provisions require enhanced structural integrity based on several risk parameters. Seismic ground shaking in the Project site is expected during the life of the proposed Project. Therefore, all structures will be built in accordance with the California Building Code's seismic design standards.

Fault Rupture

A fault rupture occurs when the surface of the earth breaks as a result of an earthquake, although this does not happen with all earthquakes. These ruptures generally occur in a weak area of an existing fault. Ruptures can be sudden (i.e. earthquake) or slow (i.e. fault creep). The Alquist-Priolo Fault Zoning Act requires active earthquake fault zones to be mapped and it provides special development considerations within these zones. The Project site does not have surface expression of active faults and fault rupture is not anticipated.

Liquefaction

Liquefaction typically requires a significant sudden decrease of shearing resistance in cohesionless soils and a sudden increase in water pressure, which is typically associated with an earthquake of high magnitude. Liquefaction can cause foundation failure of buildings and other facilities due to the reduction of foundation bearing strength. The potential for liquefaction depends on the duration and intensity of earthquake shaking, particle size distribution of the soil, density of the soil, and elevation of the groundwater. Areas at risk of liquefaction are typified by a high groundwater table and underlying loose to medium-dense, granular sediments, particularly younger alluvium and artificial fill. Clayey type soils are generally not subject to liquefaction.

According to the Envision Stockton 2040 General Plan Update EIR, the Stockton Planning Area is identified as having a low liquefaction potential due to much of the shallow sediments beneath the Planning Area being dominated by clays and clay-rich deposits. Additionally, the California Geological Survey (CGS) has not mapped any seismically-induced liquefaction hazard zones in the Stockton Planning Area. Therefore, the probability of soil liquefaction taking place at the Project site is considered to be a low hazard, due the composition of clayey soils on-site and distance from active fault zones.

Lateral Spreading

Lateral spreading typically results when ground shaking moves soil toward an area where the soil integrity is weak or unsupported, and it typically occurs on the surface of a slope, although it does not occur strictly on steep slopes. Oftentimes, lateral spreading is directly associated with areas of liquefaction. Since the potential for liquefaction is low, the potential for lateral spreading is present. According to the Envision Stockton 2040 General Plan Update EIR, the Stockton Planning Area does not appear to be located atop unstable geologic materials that are prone to lateral spreading. Therefore, the potential for lateral spreading at the Project site is also low.

Landslides

Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e., cut and fill). The potential for landslides is considered remote in the San Joaquin Valley floors due to the lack of significant slopes. Additionally, the Envision Stockton 2040 General Plan Update EIR identifies the landslide potential in the Stockton Planning Area as very low due to the gentle topography and lack of steep slopes. For this reason, the probability of landslides occurring on the Project site is low. The Project site is relatively flat and ranges in elevation from approximately 14 to 40 feet above mean sea level.

NON-SEISMIC HAZARDS

Expansive Soils

Expansive soils can undergo significant volume change with changes in moisture content. They shrink and harden when dried and expand and soften when wet. If structures are underlain by

expansive soils, it is important that foundation systems be capable of tolerating or resisting any potentially damaging soil movements. In addition, it is important to limit moisture changes in the surficial soils by using positive drainage away from buildings as well as limiting landscaping watering. According to the NRCS Web Soil Survey, the soils in the Project site have a high shrink-swell potential due to their clayey composition. The NRCS Web Soil Survey indicated that near surface soils within the Project site have medium plasticity, and the expansion potential of the soils would respond to fluctuations in moisture content.

Erosion

Erosion naturally occurs on the surface of the earth as surface materials (i.e., rock, soil, debris, etc.) is loosened, dissolved, or worn away, and transported from one place to another by gravity. Two common types of soil erosion include wind erosion and water erosion. The steepness of a slope is an important factor that affects soil erosion. Erosion potential in soils is influenced primarily by loose soil texture and steep slopes. Loose soils can be eroded by water or wind forces, whereas soils with high clay content are generally susceptible only to water erosion. The potential for erosion generally increases as a result of human activity, primarily through the development of facilities and impervious surfaces and the removal of vegetative cover. Based on the soils on-site, it is anticipated that the Project site would be susceptible to only water erosion.

The NRCS Web Soil Survey identified the erosion potential for the soils in the Project site, including the hydrologic soil group, erosion factors Kf for the surface horizon, erosion factor T, and the representative percentage of sand, silt, and clay in the surface horizon. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. Within the Project site, the erosion factor Kf varies from 0.2 to 0.28, which is considered a low to moderate potential for erosion. Furthermore, because the Project site is essentially flat, the erosion potential is slight.

Collapsible Soils

Collapsible soils undergo a rearrangement of their grains and a loss of cementation, resulting in substantial and rapid settlement under relatively low loads. Collapsible soils occur predominantly at the base of mountain ranges, where Holocene-age alluvial fan and wash sediments have been deposited during rapid run-off events. Soils prone to collapse are commonly associated with manmade fill, wind-laid sands and silts, and alluvial fan and mudflow sediments deposited during flash floods. During an earthquake, even slight settlement of fill materials can lead to a differentially settled structure and significant repair costs. Differential settlement of structures typically occurs when heavily irrigated landscape areas are near a building foundation. Examples of common problems associated with collapsible soils include tilting floors, cracking or separation in structures, sagging floors, and nonfunctional windows and doors. Collapsible soils have not been identified in the Stockton General Plan as an issue in the Stockton area. However, in areas subject to potential liquefaction, the potential for liquefaction induced settlement is present.

Subsidence

Land subsidence is the gradual settling or sinking of an area with little or no horizontal motion due to changes taking place underground. It is a natural process, although it can also occur (and is greatly accelerated) as a result of human activities. Common causes of land subsidence from human activity include: pumping water, oil, and gas from underground reservoirs; dissolution of limestone aquifers (sinkholes); collapse of underground mines; drainage of organic soils; and initial wetting of dry soils. Subsidence has been identified in the Stockton General Plan as an issue in the Stockton area given the location near the Delta; however, clayey soils, such as Jacktane clay and Stockton clay, are not prone to subsidence. Therefore, the probability of subsidence occurring on the Project site is low.

PALEONTOLOGICAL RESOURCES

Paleontological resources consist of the fossilized remains of plants and animals, including vertebrates (animals with backbones) and invertebrates (e.g., starfish, clams, ammonites, and coral). Fossils of microscopic plants and animals, or microfossils, are also considered in this analysis. The age and abundance of fossils depend on the location, topographic setting, and particular geologic formation in which they are found. The geologic formations containing the majority of fossils in the county are considered geologically young; the oldest fossil-bearing formation dates to the Paleocene epoch (65 million years old). Most of the fossil-bearing geologic units in the county were formed in ancient marine environments such as inland embayments, coastal areas, and extensive inland seas.

Paleontological resources in the San Joaquin Region are most prevalent in geologic formations located along the western margin of the San Joaquin Valley, miles away from the Project site. These formations include the marine sandstone, mudstone, siltstone, and shale of the San Pablo Formation, various undivided conglomerate, sandstone, and siltstone units, and the Moreno Formation. The Moreno Formation, which is present along the western margin of the Great Valley as an elongated and continuous, northwest-trending unit, consists of shale, sandstone, and siltstone that were once deposited in a deep-marine environment. According to the Envision Stockton 2040 General Plan Update EIR, a search of the database of the UC Museum of Paleontology at Berkeley identified over 800 documented fossil localities within San Joaquin County; however, only a handful were identified within the Stockton Planning Area.

3.6.2 REGULATORY SETTING

FEDERAL

Uniform Building Code

The purpose of the Uniform Building Code (UBC) is to provide minimum standards to preserve the public peace, health, and safety by regulating the design, construction, quality of materials, certain equipment, location, grading, use, occupancy, and maintenance of all buildings and structures. UBC standards address foundation design, shear wall strength, and other structurally related conditions.

STATE

The State of California has established a variety of regulations and requirements related to seismic safety and structural integrity, including the California Building Code, the Alquist-Priolo Earthquake Fault Zoning Act and the Seismic Hazards Mapping Act.

California Building Standards Code

The CBSC is included in Title 24 of the California Code of Regulations (CCR) and includes the California Building Code. Under state law, all building standards must be centralized in Title 24 or they are not enforceable.

The CBSC is a compilation of three types of building criteria from three different origins:

- Building standards that have been adopted by state agencies without change from building standards contained in national model codes;
- Building standards that have been adopted and adapted from the national model code standards to meet California conditions; and
- Building standards, authorized by the California legislature, that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns.

Through the CBSC, the state provides a minimum standard for building design and construction. The CBSC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. It also regulates grading activities, including drainage and erosion control.

California Building Code

The California Building Code, Title 24, Part 2, Chapter 16 addresses structural design, Chapter 17 addresses structural tests and special inspections, and Chapter 18 addresses soils and foundations. Section 1610 provides structural design standards for foundation walls and retaining walls to ensure resistance to lateral soil loads. Section 1613 provides structural design standards for earthquake loads. Section 1704.7 requires special inspections for existing site soil conditions, fill placement and load-bearing requirements during the construction as specified in Table 1704.7 of this section. Sections 1704.8 through 1704.16 provide inspection and testing requirements for various foundation types, and construction material types. Section 1803.1.1.1 requires each city and county enact an ordinance which requires a preliminary soil report and that the report be based upon adequate test borings or excavations, of every subdivision, where a tentative and final map is required pursuant to Section 66426 of the Government Code. Section 1803.5.3 defines expansive soils and specifies that in areas likely to have expansive soil, the building official shall require soil tests to determine where such soils do exist. Section 1803.5.4 specifies that a subsurface soil investigation must be performed to determine whether the existing ground-water table is above or within 5 feet (1524 mm) below the elevation of the lowest floor level where such floor is located below the finished ground level adjacent to the foundation. Section 1803.5.8 provides specific standards where shallow foundations will bear on compacted fill material more

than 12 inches (305 mm) in depth. Section 1803.5.11 and 1803.5.12 provide requirements for geotechnical investigations for structures assigned varying Seismic Design Categories in accordance with Section 1613. Section 1804 provides standards and requirements for excavation, grading, and fill. Section 1808, 1809, and 1810 provides standards and requirements for the construction of varying foundations.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 sets forth the policies and criteria of the State Mining and Geology Board, which governs the exercise of governments' responsibilities to prohibit the location of developments and structures for human occupancy across the trace of active faults. The policies and criteria are limited to potential hazards resulting from surface faulting or fault creep within Earthquake Fault Zones, as delineated on maps officially issued by the State Geologist. Working definitions include:

- Fault – a fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side;
- Fault Zone – a zone of related faults, which commonly are braided and sub parallel, but may be branching and divergent. A fault zone has a significant width (with respect to the scale at which the fault is being considered, portrayed, or investigated), ranging from a few feet to several miles;
- Sufficiently Active Fault – a fault that has evidence of Holocene surface displacement along one or more of its segments or branches (last 11,000 years); and
- Well-Defined Fault – a fault whose trace is clearly detectable by a trained geologist as a physical feature at or just below the ground surface. The geologist should be able to locate the fault in the field with sufficient precision and confidence to indicate that the required site-specific investigations would meet with some success.

“Sufficiently Active” and “Well Defined” are the two criteria used by the State to determine if a fault should be zoned under the Alquist-Priolo Act.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, passed in 1990, addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically-induced landslides. Under the Act, seismic hazard zones are to be mapped by the State Geologist to assist local governments in land use planning. The program and actions mandated by the Seismic Hazards Mapping Act closely resemble those of the Alquist-Priolo Earthquake Fault Zoning Act (which addresses only surface fault-rupture hazards) and are outlined below:

The State Geologist is required to delineate the various “seismic hazard zones.”

- Cities and Counties, or other local permitting authority, must regulate certain development “projects” within the zones. They must withhold the development permits for a site within a zone until the geologic and soil conditions of the site are investigated and appropriate mitigation measures, if any, are incorporated into development plans.

- The State Mining and Geology Board provides additional regulations, policies, and criteria, to guide cities and counties in their implementation of the law. The Board also provides guidelines for preparation of the Seismic Hazard Zone Maps and for evaluating and mitigating seismic hazards.
- Sellers (and their agents) of real property within a mapped hazard zone must disclose that the property lies within such a zone at the time of sale.

Caltrans Seismic Design Criteria

The California Department of Transportation (Caltrans) has Seismic Design Criteria (SDC), which is an encyclopedia of new and currently practiced seismic design and analysis methodologies for the design of new bridges in California. The SDC adopts a performance-based approach specifying minimum levels of structural system performance, component performance, analysis, and design practices for ordinary standard bridges. The SDC has been developed with input from the Caltrans Offices of Structure Design, Earthquake Engineering and Design Support, and Materials and Foundations. Memo 20-1 outlines the bridge category and classification, seismic performance criteria, seismic design philosophy and approach, seismic demands and capacities on structural components and seismic design practices that collectively make up Caltrans' seismic design methodology.

National Pollutant Discharge Elimination System (NPDES)

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges of pollutants to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, the ocean, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.)

The Regional Water Quality Control Board (RWQCB) issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the Environmental Protection Agency Regional Administrator. The terms of these NPDES permits implement pertinent provisions of the Federal Clean Water Act and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the California Water Code.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and are therefore to be updated regularly. The rapid and dramatic population and urban growth in the Central Valley Region has caused a significant increase in NPDES permit applications for new waste discharges. To expedite the permit issuance process, the RWQCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The California State Water Resources Control Board (SWRCB) issues general permits for stormwater runoff from construction sites statewide.

Stormwater discharges from industrial and construction activities in the Central Valley Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

In accordance with the NPDES General Construction Permit requirements, a Storm Water Pollution Prevention Plan (SWPPP) is required for projects that disturb at least one acre of soil. The SWPPP must be submitted to the RWQCB.

Water Quality Control Plan for the Central Valley Region

The Water Quality Control Plan for the Central Valley Region (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term “water quality standards,” as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region’s ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

LOCAL

Envision Stockton 2040 General Plan

The Envision Stockton 2040 General Plan contains the following policy that is relevant to geotechnical aspects of the proposed Project:

POLICY: SAFETY ELEMENT

- SAF-2.2. Prepare sufficiently for major events to enable quick and effective response.

City of Stockton Municipal Code

Title 15 of the Stockton Municipal Code, Building and Construction, provides minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, installation, quality of materials, use and occupancy, location and maintenance of all buildings and structures within this jurisdiction, and certain equipment. Chapter 15.40 of this title adopts the 2019 California Building Code.

Chapter 15.48 of the Municipal Code, Grading and Erosion Control, establishes requirements for clearing and grubbing, grading, filling and excavation of land to minimize damage to surrounding property, public right-of-way, and degradation of water quality; controlling the discharge of sediments and pollutant runoff from construction related activities to municipal separate storm drains, and reducing pollutants in stormwater discharges to the maximum extent practicable. The ordinance requires any development project resulting in the excavation of 50 cubic yards of soil or more to obtain a grading and erosion control permit. Grading and erosion control permits, and amendments thereto, are subject to the requirements of the California Environmental Quality Act (CEQA) if they have not been addressed in a previous environmental document. Individual project applicants are required to furnish a copy of the permit application to the City for review and approval. The City reviews all grading and erosion control permits and geotechnical studies and reports in accordance with the Ordinance to ensure geologic and soil stability have been properly addressed.

3.6.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on geology and soils if it will:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;
 - Strong seismic ground shaking;
 - Seismic-related ground failure, including liquefaction;
 - Landslides;
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property; and/or
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

IMPACTS AND MITIGATION MEASURES

Impact 3.6-1: The proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, strong seismic ground shaking, seismic related ground failure, or landslides (Less than Significant)

As previously mentioned, the Project site is comprised of active agricultural fields that have been historically used for intensive agricultural purposes, including watermelon and walnut production. The off-site sewer improvements would be located within the Airport Way right-of-way, and adjacent to the roadway in certain limited areas (such as northeast of the Airport Way and Arch Airport Road intersection, and northeast of the Airport Way and Boeing Way intersection). The proposed Project would subdivide the approximately 422.22-acres of agricultural land into 13 development lots, two basin lots, two one open space lots, one sewer pump station lot, and off-site sewer improvements. Of the 13 development lots, 12 will be for development of a mix of industrial uses and one will be for development of commercial uses. The following describes the potential for the loss, injury, or death due to ground rupture, strong ground shaking, liquefaction, or landslides on the Project site.

GROUND RUPTURE

The California Geologic Survey (CGS) evaluates faults and determines if a fault should be zoned as active, potentially active, or inactive. All active faults are incorporated into a Special Studies Zone, also referred to as an Alquist-Priolo Special Study Zone. As shown on Figure 3.6-1, the Project site is not within an Alquist-Priolo Special Study Zone and no faults are located within the Stockton Planning Area.

As previously discussed, the U.S. Geological Survey identifies potential seismic sources within 32.2 kilometers (20 miles) of the Project site. The nearest earthquake fault zoned as active by the State of California Geological Survey is the Vernalis Fault Zone, located approximately 10 miles to the southwest of the site. Therefore, because no faults are located on the Project site, the potential for ground rupture (cracking or breaking of the ground during an earthquake) would be less than significant.

GROUND SHAKING

According to the California Geological Survey's Probabilistic Seismic Hazard Assessment Program, Stockton is considered to be within an area that is predicted to have a 10 percent probability that a seismic event would produce horizontal ground shaking of 10 to 20 percent within a 50-year period. This level of ground shaking correlates to a Modified Mercalli intensity of V to VII, light to strong. As a result of these factors the California Geological Survey has defined the entire county as a seismic hazard zone. The Uniform Building Code places all of California in the zone of greatest earthquake severity because recent studies indicate high potential for severe ground shaking.

To reduce the impact of seismic ground shaking on the development, the Project would be required to be constructed using standard engineering and seismic safety design techniques of the California Building Code. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures would be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Design in accordance with these standards and policies would reduce any potential impact to a less than significant level.

LIQUEFACTION

To date, the Seismic Hazards Zonation Program of the CGS has not identified any seismically-induced liquefaction zones in the City of Stockton or in the Project site. Furthermore, the Envision Stockton 2040 General Plan Update EIR identifies the Stockton Planning Area is at low risk for liquefaction. Therefore, the probability of soil liquefaction taking place at the Project site is considered to be a low hazard due the composition of clayey soils on-site and distance from active fault zones, resulting in a less than significant impact.

LANDSLIDES

The Project site relatively flat; therefore, the potential for a landslide in the Project site is non-existent. Some limited potential for slope instability risk could arise during grading and construction activities, where slopes could be over-steepened. However, this risk is mitigated by adhering to relevant California Building Code requirements. Additionally, according to the CGS Information Warehouse: Regulatory Maps, the site is not located within a Landslide and Liquefaction Zone. As a result, the probability of landslides causing substantial adverse effects on people or structures is less than significant.

CONCLUSION

The City, as with virtually all sites within the State of California, will always be subject to potential ground shaking caused by seismic activity anywhere in California, including the Project site. Seismic activity could come from a known active fault such as the Vernalis Fault, or any number of other faults in the region. In order to minimize potential damage to the buildings and site improvements, all construction in California is required to be designed in accordance with the latest seismic design standards of the California Building Code. As discussed under Section 3.6.2 Regulatory Setting, the California Building Code, Title 24, Part 2, Chapter 16 addresses structural design and Chapter 18 addresses soils and foundations. Collectively, these state requirements, which have been adopted by the City of Stockton, include design standards and requirements that are intended to minimize impacts to structures in seismically active areas of California. Section 1613 specifically provides structural design standards for earthquake loads. Section 1803.5.11 and 1803.5.12 provide requirements for geotechnical investigations for structures assigned varying Seismic Design

Categories in accordance with Section 1613. Additionally, the City of Stockton has adopted Design and Construction Standards and incorporated numerous policies relative to seismicity to ensure the health and safety of all people. Design in accordance with these standards and policies would reduce any potential impact to a less than significant level. Because all development in the Project site must be designed in conformance with these state and local standards and policies, any potential impact would be considered *less than significant*.

Impact 3.6-2: Implementation and construction of the proposed Project may result in substantial soil erosion or the loss of topsoil (Less than Significant with Mitigation)

The potential for erosion generally increases as a result of human activity, primarily through the development of facilities and impervious surfaces and the removal of vegetative cover; thus, there is the potential for erosion associated with construction activities or through the operational phase of a project.

The Project site contains high clay content surface soils; therefore, the Project site would potentially be subject to water erosion. As previously mentioned, a Custom Soil Survey was completed for the Project site using the NRCS Web Soil Survey program, which identified the erosion factor K for on-site soils. Within the Project site, the erosion factor Kf varies from 0.20 to 0.28, which is considered a low potential for erosion. Furthermore, because the Project site is essentially flat, the erosion potential is slight. Regardless of the potential for erosion, there is always the potential for human caused erosion associated with construction activities or through the operational phase of a project. However, grading, excavation, removal of vegetation cover, and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas. Additionally, there is the potential for erosion associated with stormwater runoff throughout the operational phase of the project. The potential for erosion is associated with the design of the improvements, structures, and landscaping.

The proposed Project would be subject to the provisions of the City's Grading and Erosion Control Ordinance (Chapter 15.48 of the Stockton Municipal Code). The purpose of this Ordinance includes the regulation of grading activity on all property within the City of Stockton that results in the excavation of 50 cubic yards of soil. The Ordinance establish requirements for clearing and grubbing, grading, filling and excavation of land to minimize damage to surrounding property, public right-of-way, and degradation of water quality; controlling the discharge of sediments and pollutant turnoff from construction related activities to municipal separate storm drains; and reducing pollutants in stormwater discharges to the maximum extent practicable. Compliance with all applicable erosion control measures outlined in the City's Grading and Erosion Control Ordinance would assist in minimizing any impacts related to top soil erosion.

Additionally, in accordance with the NPDES Stormwater Program, projects in California must prepare a Stormwater Pollution Prevention Plan (SWPPP) containing Best Management Practices (BMPs) to reduce erosion and sediments to meet water quality standards. Such BMPs may include:

temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover. The BMPs and overall SWPPP is reviewed by the Regional Water Quality Control Board as part of the permitting process. Mitigation Measure 3.9-1 in Section 3.9, Hydrology and Water Quality, requires an approved SWPPP for the Project designed to control erosion and the loss of topsoil to the extent practicable using BMPs that the RWQCB has deemed effective in controlling erosion, sedimentation, runoff during construction activities. The RWQCB has stated that these erosion control measures are only examples of what should be considered and should not preclude new or innovative approaches currently available or being developed. The specific controls are subject to the review and approval by the RWQCB and are existing regulatory requirements.

Overall, compliance with the City's Grading and Erosion Control Ordinance coupled with the implementation of Mitigation Measure 3.9-1 would ensure that the proposed Project would have a ***less than significant*** impact relative to this topic.

MITIGATION MEASURE(S)

*Implement **Mitigation Measure 3.9-1.***

Impact 3.6-3: The proposed Project has the potential to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of Project implementation, and potentially result in landslide, lateral spreading, subsidence, liquefaction or collapse (Less than Significant with Mitigation)

LANDSLIDE AND LIQUEFACTION

As discussed in Impact 3.6-1, the Project site is relatively flat and, to date, the Seismic Hazards Zonation Program of the CGS has not identified any seismically-induced liquefaction or landslide zones in the City of Stockton, including the Project site. Furthermore, the Envision Stockton 2040 General Plan Update EIR identifies the Stockton Planning Area, including the Project site, is at low risk for liquefaction and landslides. Therefore, the probability of a landslide or liquefaction on the Project sites is low.

LATERAL SPREADING

Lateral spreading typically occurs on the surface of a slope and is oftentimes directly associated with areas of liquefaction. As stated, the Project site is relatively flat and there are no slopes on-site or within the surrounding area. Further, the Project site is not located within an area identified as having the potential for liquefaction. According to the Envision Stockton 2040 General Plan Update EIR, the Stockton Planning Area does not appear to be located atop unstable geologic materials that are prone to lateral spreading. Therefore, the potential for lateral spreading at the Project site is also low.

COLLAPSIBLE SOILS

Collapsible soils or soil collapse occurs when any unsaturated soils go through a radical rearrangement of particles and greatly decreases in volume upon wetting, additional loading, or both. Collapsible soils occur predominantly at the base of mountain ranges, where Holocene-age alluvial fan and wash sediments have been deposited during rapid run-off events. As stated, the Project site is relatively flat and is located in the valley floor away from the bases of mountain ranges. Further, collapsible soils have not been identified as an issue in the Stockton area. According to the Envision Stockton 2040 General Plan Update EIR, the Stockton Planning Area does not appear to be located atop unstable geologic materials that are prone to collapsible soils. Therefore, the potential for soil collapse at the Project site is also low.

SUBSIDENCE

Land subsidence is the gradual settling or sinking of an area with little or no horizontal motion due to changes taking place underground. It is a natural process, although it can also occur (and is greatly accelerated) as a result of human activities. Subsidence has not been identified as an issue in the Stockton area. According to the Envision Stockton 2040 General Plan Update EIR, the Stockton Planning Area does not appear to be located atop unstable geologic materials that are prone to subsidence. Therefore, the potential for subsidence at the Project site is also low.

CONCLUSION

Based on the analysis above, the Project site does not have a significant risk of becoming unstable as a result landslide, liquefaction, subsidence, or soil collapse; however, the potential does still exist. Mitigation Measure 3.6-1 requires the preparation of a final geotechnical evaluation of soils at a design-level, consistent with the requirements of the CBC. Implementation of this mitigation measure would ensure that all on-site fill soils are properly compacted and comply with the applicable safety requirements established by the CBC to reduce risks associated with unstable soils and excavations and fills, and that any issues associated with unstable soils are addressed at the design level. Therefore, implementation of Mitigation Measure 3.6-1 would ensure the proposed Project would have a ***less than significant*** impact relative to this topic.

MITIGATION MEASURE(S)

Mitigation Measure 3.6-1: Prior to earthmoving activities for each phase of the Project, a certified geotechnical engineer, or equivalent, shall be retained to perform a final geotechnical evaluation of the soils at a design-level as required by the requirements of the California Building Code Title 24, Part 2, Chapter 18, Section 1803.1.1.2 related to expansive soils and other soil conditions. The evaluation shall be prepared in accordance with the standards and requirements outlined in California Building Code, Title 24, Part 2, Chapter 16, Chapter 17, and Chapter 18, which addresses structural design, tests and inspections, and soils and foundation standards. The final geotechnical evaluation shall include design recommendations to ensure that soil conditions do not pose a threat to the health and safety of people or structures, including threats from liquefaction or lateral spreading. The grading and improvement plans, as well as the storm drainage and building plans

for each phase of the Project shall be designed in accordance with the recommendations provided in the final geotechnical evaluation.

Impact 3.6-4: The proposed Project has the potential for expansive soils to create substantial risks to life or property (Less than Significant with Mitigation)

Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement and distorting structural elements. Expansion is a typical characteristic of certain varieties of clay-type soils. Expansive soils shrink and swell in volume during changes in moisture content, such as a result of seasonal rain events, and can cause damage to foundations, concrete slabs, roadway improvements, and pavement sections.

According to the NRCS Web Soil Survey, the soils in the Project site have a high shrink-swell potential due to their clayey composition. The NRCS Web Soil Survey indicated that near surface soils within the Project site have medium plasticity, and the expansion potential of the soils would respond to fluctuations in moisture content. Therefore, measures to reduce potentially significant impacts related to expansive site soils would be necessary.

As discussed in Impact 3.6-3, the California Building Code Title 24, Part 2, Chapter 18, Section 1803.1.1.2 requires specific geotechnical evaluation when a preliminary geotechnical evaluation determines that expansive or other special soil conditions are present, which, if not corrected, would lead to structural defects. The City of Stockton also requires a final geotechnical evaluation to be performed at a design-level to ensure that the foundations, structures, roadway sections, sidewalks, and other improvements can accommodate the specific soils, including expansive soils, at those locations. Mitigation Measure 3.6-1, presented above, provides the requirement for a final geotechnical evaluation in accordance with the standards and requirements outlined in the California Building Code, Title 24, Part 2, Chapter 16, Chapter 17, and Chapter 18, which addresses structural design, tests and inspections, and soils and foundation standards. The final geotechnical evaluation would include design recommendations to ensure that soil conditions do not pose a threat to the health and safety of people or structures. The grading and improvement plans, as well as the storm drainage and building plans, are required to be designed in accordance with the recommendations provided in the final geotechnical evaluation. With the implementation of Mitigation Measure 3.6-1 (requiring a final Geotechnical Evaluation, and site recommendations) the proposed Project would have a ***less than significant*** impact relative to this topic.

MITIGATION MEASURE(S)

Implement Mitigation Measure 3.6-1.

Impact 3.6-5: The proposed Project has the potential to directly or indirectly destroy a unique geological feature or paleontological resource (Less than Significant with Mitigation)

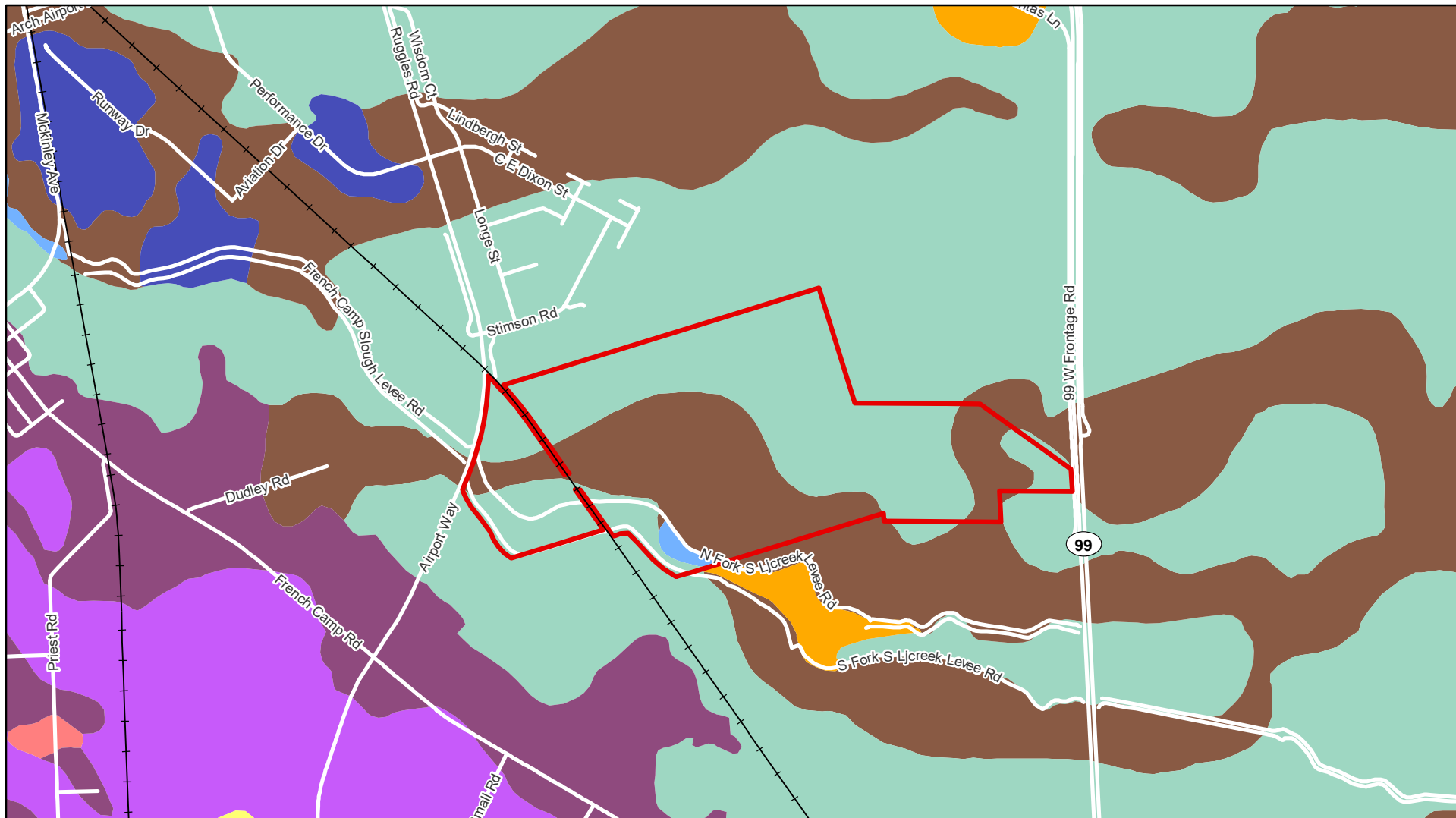
The Project site is located in an area known to have paleontological resources. As previously mentioned, the Envision Stockton 2040 General Plan Update EIR included a search of the database of the UC Museum of Paleontology at Berkeley, which identified over 800 documented fossil localities within San Joaquin County. While only a handful were identified within the Stockton Planning Area, it is possible that undiscovered paleontological resources could be encountered during ground-disturbing activities from development of the Project site.

Damage to or destruction of a paleontological resource would be considered a potentially significant impact under local, state, or federal criteria. Implementation of Mitigation Measure 3.6-2 would ensure steps would be taken to reduce impacts to paleontological resources in the event that they are discovered during construction, including stopping work in the event potential resources are found, evaluation of the resource by a qualified paleontologist and appropriate handling of any potential resource. This mitigation measure would reduce this impact to a ***less-than-significant*** level.

MITIGATION MEASURE(S)

Mitigation Measure 3.6-2: *If any paleontological resources are found during grading and construction activities of the Project, all work shall be halted immediately within a 200-foot radius of the discovery until a qualified paleontologist has evaluated the find.*

Work shall not continue at the discovery site until the paleontologist evaluates the find and makes a determination regarding the significance of the resource and identifies recommendations for conservation of the resource, including preserving in place or relocating on the Project site, if feasible, or collecting the resource to the extent feasible and documenting the find with the University of California Museum of Paleontology.



LEGEND

 Project Boundary

NRCS Soil Description (Acres Onsite)

Delhi loamy sand, 0 to 2 percent slopes, MLRA 17

Dumps

Galt clay, 0 to 1 percent slopes, MLRA 17

Hollenbeck silty clay, 0 to 2 percent slopes (0.2 ac)

Honcut sandy loam, 0 to 2 percent slopes

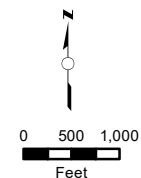
Jacktone clay, 0 to 2 percent slopes (259.3 ac)

Stockton clay, 0 to 2 percent slopes (158.4 ac)

Tinnin loamy coarse sand, 0 to 2 percent slopes

Veritas fine sandy loam, 0 to 2 percent slopes

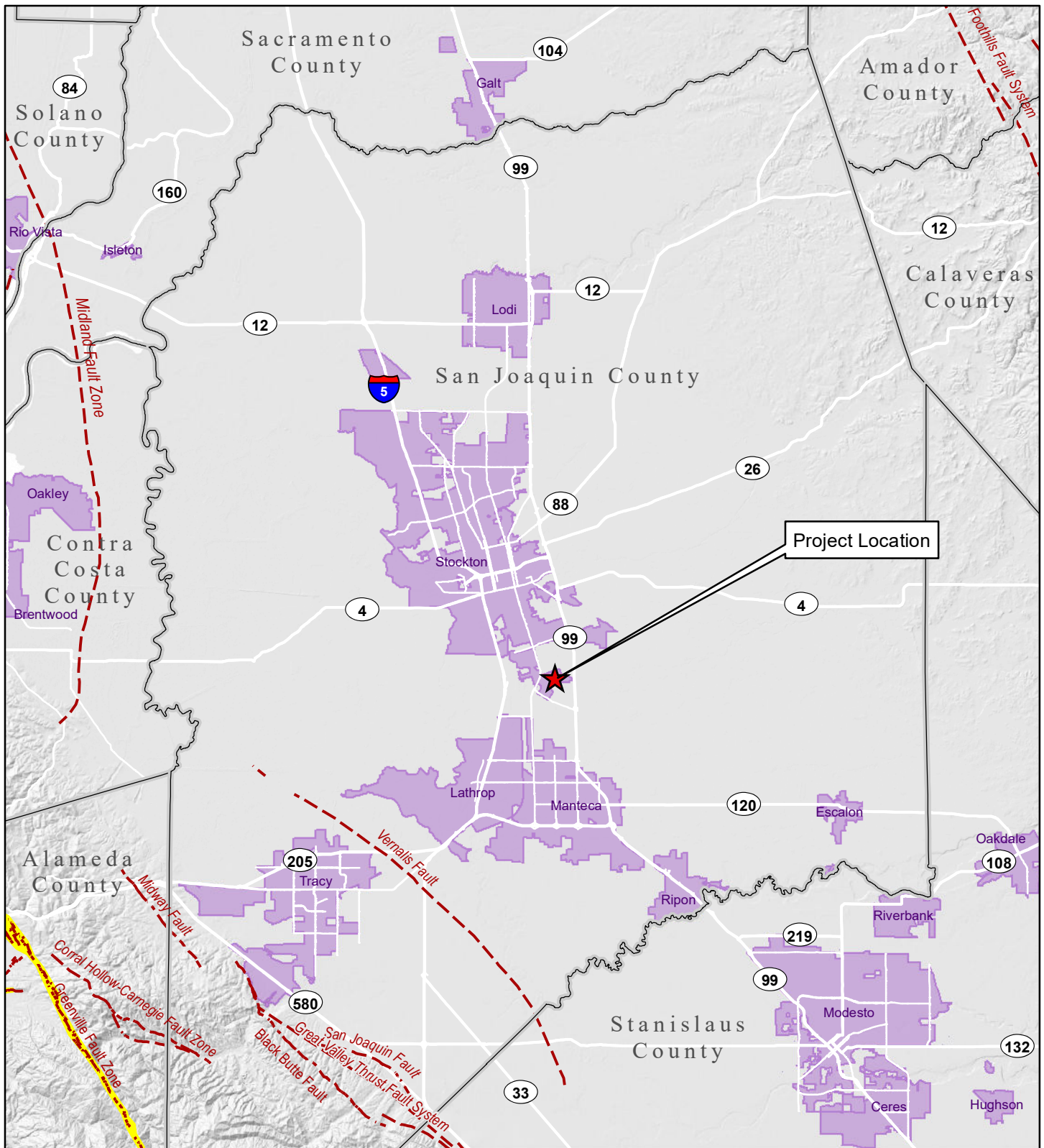
Water (4.3 ac)



SOUTH STOCKTON COMMERCE CENTER

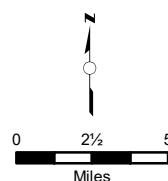
Figure 3.6-1. Soils

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LEGEND

- Quaternary Fault
- Alquist Priolo Fault Zone



SOUTH STOCKTON COMMERCE CENTER

Figure 3.6-2. Earthquake Fault Map

Source: San Joaquin County GIS; USGS;
California State GeoPortal. Map date: September 23, 2020.

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm



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This section discusses regional greenhouse gas (GHG) emissions, climate change, and energy conservation impacts that could result from Project implementation. The analysis contained in this section is intended to be at a Project-level, and covers impacts associated with the conversion of the entire site to urban uses. This section provides a background discussion of greenhouse gases and climate change linkages and effects of global climate change. This section is organized with an existing setting, regulatory setting, approach/methodology, and impact analysis. The analysis and discussion of the GHG, climate change, and energy conservation impacts in this section focuses on the proposed Project's consistency with local, regional, and statewide climate change planning efforts and discusses the context of these planning efforts as they relate to the proposed Project. Disclosure and discussion of the Project's estimated energy usage and greenhouse gas emissions are provided.

Four (4) comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the Sierra Club (October 27, 2020), State of California Department of Justice (November 24, 2021), California Air Resources Board (November 17, 2020), and the San Joaquin Valley Air Pollution Control District (SJVAPCD) (October 30, 2020). The SJVAPCD commenter pointed out that the SJVAPCD has the *Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI)* (March 19, 2015) as a technical guidance for the review of air quality impacts from proposed projects within the boundaries of the District. Each of the comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

3.7.1 ENVIRONMENTAL SETTING

GREENHOUSE GASES AND CLIMATE CHANGE LINKAGES

Various gases in the Earth's atmosphere, classified as atmospheric GHGs, play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

Naturally occurring GHGs include water vapor (H₂O), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and ozone (O₃). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also GHGs, but they are, for the most part, solely a product of industrial activities. Although the direct GHGs CO₂, CH₄, and N₂O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2011, concentrations of these three GHGs have increased globally by 40, 150, and 20 percent, respectively (IPCC, 2013).¹

¹ GHGs for individual projects are typically expressed in terms of the combined metric of annual metric tons of CO₂ equivalent (i.e., MT CO₂e), which encapsulates all GHGs that are measured for the individual project.

GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs).

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by the industrial and electricity generation sectors (California Energy Commission, 2023).

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2022, accounting for 38% of total GHG emissions in the state. This category was followed by the industrial sector (23%), the electricity generation sector (including both in-state and out of-state sources) (16%), the agriculture and forestry sector (9%), the residential energy consumption sector (8%), and the commercial energy consumption sector (6%) (California Air Resources Board, 2023).

EFFECTS OF GLOBAL CLIMATE CHANGE

The effects of increasing global temperature are far-reaching and extremely difficult to quantify. The scientific community continues to study the effects of global climate change. In general, increases in the ambient global temperature as a result of increased GHGs are anticipated to result in rising sea levels, which could threaten coastal areas through accelerated coastal erosion, threats to levees and inland water systems and disruption to coastal wetlands and habitat.

If the temperature of the ocean warms, it is anticipated that the winter snow season would be shortened. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the State. The snowpack portion of the supply could potentially decline by 50% to 75% by the end of the 21st century (National Resources Defense Council, 2014). This phenomenon could lead to significant challenges securing an adequate water supply for a growing state population. Further, the increased ocean temperature could result in increased moisture flux into the State; however, since this would likely increasingly come in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential and severity of flood events, placing more pressure on California's levee/flood control system.

Sea level has risen approximately seven (7) inches during the last century and it is predicted to rise an additional 22 to 35 inches by 2100, depending on the future GHG emissions levels (California Environmental Protection Agency, 2010). If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion and disruption of wetlands. As the existing climate throughout California changes over time, mass migration of species, or failure of species to migrate in time to adapt to the perturbations in climate, could also result. Under the emissions scenarios of the Climate Scenarios report (California Environmental Protection Agency, 2010), the impacts of global warming in California are anticipated to include, but are not limited to, the following.

Public Health

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase from 25% to 35% under the lower warming range and to 75% to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts capture and transport water throughout the State from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta, a major State fresh water supply. Global warming is also projected to seriously affect agricultural areas, with California farmers projected to lose as much as 25% of the water supply they need; decrease the potential for hydropower production within the State (although the effects on hydropower are uncertain); and seriously harm winter tourism. Under the lower warming range, the snow dependent winter recreational season at lower elevations could be reduced by as much as one month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing, snowboarding, and other snow dependent recreational activities.

If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70% to 90%. Under the lower warming scenario, snowpack losses are expected to be only half as large as those expected if temperatures were to rise to the higher warming range. How much snowpack will be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack would pose challenges to water managers, hamper hydropower generation, and nearly eliminate all skiing and other snow-related recreational activities.

Agriculture

Increased GHG emissions are expected to cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. Although higher carbon dioxide levels can stimulate plant production and increase plant water-use efficiency, California's farmers will face greater water demand for crops and a less reliable water supply as temperatures rise.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures are likely to worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts, and milk.

Crop growth and development will be affected, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures will likely aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

In addition, continued global warming will likely shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Should range contractions occur, it is likely that new or different weed species will fill the emerging gaps. Continued global warming is also likely to alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global warming is expected to alter the distribution and character of natural vegetation thereby resulting in a possible increased risk of large wildfires. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the State. For example, if precipitation increases as temperatures rise, wildfires in southern California are expected to increase by approximately 30% toward the end of the century. In contrast, precipitation decreases could increase wildfires in northern California by up to 90%.

Moreover, continued global warming will alter natural ecosystems and biological diversity within the State. For example, alpine and sub-alpine ecosystems are expected to decline by as much as 60% to 80% by the end of the century as a result of increasing temperatures. The productivity of the State's forests is also expected to decrease as a result of global warming.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the State's coastal regions. Under the higher warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

ENERGY CONSUMPTION

Energy in California is consumed from a wide variety of sources. Fossil fuels (including gasoline and diesel fuel, natural gas, and energy used to generate electricity) are the most widely used form of energy in the State. However, renewable sources of energy (such as solar and wind) are growing in proportion to California's overall energy mix. A large driver of renewable sources of energy in California is the State's current Renewable Portfolio Standard (RPS), which requires the State to derive at least 60 percent of electricity generated by 2030, and to achieve zero-carbon emissions by 2045 (as passed in September 2018, under Senate Bill 100). The 2021 SB 100 Joint Agency Report was published in 2021, which found that the long-term goals contained in SB 100 are technically achievable through multiple pathways, although achieving 100 clean electricity would increase the total annual electricity system cost by 6% relative to the cost under the state's Renewables Portfolio Standard requirement of having at least 60 percent clean electricity by the end of 2030. These estimates will change over time as markets change, new technologies are commercialized, and additional factors such as grid reliability are included in future analyses.

Overall, in 2019, California's per capita energy usage was ranked second-lowest in the nation (U.S. EIA, 2020b). California's per capita rate of energy usage has remained relatively constant since the 1970's. Many State regulations since the 1970s, including new building energy efficiency standards, vehicle fleet efficiency measures, as well as growing public awareness, have helped to keep per capita energy usage in the State in check.

The consumption of non-renewable energy (i.e., fossil fuels) associated with the operation of passenger, public transit, and commercial vehicles results in GHG emissions that contribute to global climate change. Alternative fuels such as natural gas, ethanol, and electricity (unless derived from solar, wind, nuclear, or other energy sources that do not produce carbon emissions) also result in GHG emissions and contribute to global climate change.

Electricity Consumption

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and a very small amount of nuclear generation resources. In 2020, nearly one-half of the electricity supply came from facilities outside of the State. Much of the power delivered to

California from states in the Pacific Northwest was generated by wind. States in the Southwest delivered power generated at coal-fired power plants, at natural gas-fired power plants, and from nuclear generating stations (U.S. EIA, 2022). In 2020, approximately 41 percent of California’s utility-scale net electricity generation was fueled by natural gas. In addition, about 48 percent of the State’s utility-scale net electricity generation came from renewable sources, such as solar, wind, geothermal, hydropower, and biomass. Nuclear energy powered an additional 11 percent. The amount of electricity generated from coal was effectively zero (U.S. EIA, 2022). The percentage of renewable resources as a proportion of California’s overall energy portfolio is increasing over time, as directed the State’s Renewable Portfolio Standard (RPS).

According to the California Energy Commission (CEC), total statewide electricity consumption increased from 166,979 gigawatt-hours (GWh) in 1980 to 228,038 GWh in 1990, which is an estimated annual growth rate of 3.66 percent. The statewide electricity consumption in 1997 was 246,225 GWh, reflecting an annual growth rate of 1.14 percent between 1990 and 1997 (U.S. EIA, 2023b). Statewide consumption was 274,985 GWh in 2010, an annual growth rate of 0.9 percent between 1997 and 2010. In 2021, electricity consumption in San Joaquin County was 5,608 GWh (California Energy Commission, 2023).

PG&E is a publicly traded utility company that, under contract with the California Public Utilities Commission (CPUC), generates, purchases, and distributes energy. PG&E’s service area covers 70,000 square miles, roughly extending north to south from Eureka to Bakersfield and east to west from the Sierra Nevada to the Pacific Ocean. PG&E’s electricity distribution system consists of 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines.

PG&E’s electricity is generated from a combination of traditional sources, such as coal-fired plants, nuclear power plants, and hydroelectric dams, as well as newer sources of energy, such as wind turbines and photovoltaic plants, or “solar farms.” “The grid,” or bulk electric grid, is a network of high-voltage transmission lines that link power plants to the PG&E system. The distribution system, comprising lower-voltage secondary lines, is at the street and neighborhood level. It consists of overhead or underground distribution lines, transformers, and individual service “drops” that connect to individual customers.

In addition to its base plan, PG&E has three (3) plan options, known as Solar Choice options and Green Saver, which give customers the option of purchasing energy from solar resources. The first Solar Choice option provides up to 50 percent of a customer’s energy from solar resources, while the other option provides up to 100 percent of a customer’s energy from solar resources, and the Green Saver option provides up to 90 percent of a customer’s energy from solar resources.

Table 3.7-1 outlines PG&E’s power mix in 2021, compared to the power mix for the state. The table identifies the renewable and non-renewable energy sources for PG&E. It should be noted that some GHG free sources are not considered renewable (e.g., nuclear is GHG free but not renewable).

TABLE 3.7-1. PG&E AND THE STATE OF CALIFORNIA POWER MIX IN 2021

ENERGY RESOURCES	PG&E OPTION: BASE	PG&E OPTION: 50% SOLAR CHOICE	PG&E OPTION: 100% SOLAR	PG&E OPTION: GREEN SAVER	CALIFORNIA POWER MIX 2021
Eligible Renewable	47.7%	70.9%	93.9%	89.9%	33.6%
Biomass and waste	4.2%	2.1%	0.0%	0.0%	2.3%
Geothermal	5.2%	2.6%	0.0%	0.0%	4.8%
Small hydroelectric	1.8%	0.9%	0.0%	0.0%	1.0%
Solar	25.7%	59.8%	93.9%	89.9%	14.2%
Wind	10.9%	5.5%	0.0%	0.0%	11.4%
Coal	0.0%	0.0%	0.0%	0.0%	3.0%
Large Hydroelectric	4.0%	2.0%	0.0%	0.0%	9.2%
Natural Gas	8.9%	7.4%	0.0%	0.0%	37.9%
Nuclear	39.3%	19.7%	0.0%	0.0%	9.3%
Other	0.0%	0.0%	0.0%	0.0%	0.2%
Unspecified	0.0%	0.0%	6.1%	10.1%	6.8%

SOURCE: PG&E. 2021. 2021 POWER CONTENT LABEL. AVAILABLE:
[HTTPS://WWW.ENERGY.CA.GOV/FILEBROWSER/DOWNLOAD/4653](https://www.energy.ca.gov/filebrowser/download/4653). ACCESSED: NOVEMBER 10, 2023.

^A. ELECTRICITY FROM TRANSACTIONS THAT ARE NOT TRACEABLE TO SPECIFIC GENERATION SOURCES ARE CLASSIFIED AS UNSPECIFIED SOURCES OF POWER.

In 2021, the latest year for which data is available, statewide consumption was 277,205 GWh (California Energy Commission, 2022). In 2020, electricity consumption in San Joaquin County was 5,737 GWh (California Energy Commission, 2021).

Oil

The primary energy source for the United States is oil, which is refined to produce fuels like gasoline, diesel, and jet fuel. Oil is a finite, nonrenewable energy source. World consumption of petroleum products has grown steadily in the last several decades. As of 2016, world consumption of oil had reached 96 million barrels per day. The United States, with approximately five percent of the world's population, accounts for approximately 19 percent of world oil consumption, or approximately 18.6 million barrels per day (U.S. EIA, 2020c). The transportation sector relies heavily on oil. In California, petroleum-based fuels derived from oil currently provide approximately 96 percent of the State's transportation energy needs.

Natural Gas/Propane

The State produces approximately 12 percent of its natural gas, while obtaining 22 percent from Canada and 65 percent from the Rockies and the Southwest (California Energy Commission, 2012). PG&E is the largest publicly-traded utility in California and provides natural gas for residential, industrial, and agency consumers within the San Joaquin County area. PG&E's natural gas (i.e., methane) delivery system includes 42,000 miles of natural gas distribution pipelines and 6,700 miles of transmission pipelines. PG&E's gas transmission system serves approximately 15 million energy

customers in California. The system is operated under an inspection and monitoring program in real time on a 24-hour basis, with leak inspections, surveys, and patrols continuously taking place along the pipelines. Gas delivered by PG&E originates in gas fields in California, the Southwest, the Rocky Mountains, and Canada. Transmission pipelines send natural gas from the fields and storage facilities. The smaller distribution pipelines deliver gas to individual businesses or residences.

As of March 2022, California produced 11.4 billion cubic feet of natural gas per month (U.S. EIA, 2022). PG&E is the largest publicly-owned utility in California and provides natural gas for residential, industrial, and agency consumers within the San Joaquin County area. In 2021, natural gas consumption in San Joaquin County was approximately 186 million therms (California Energy Commission, 2023). Residential natural gas consumption accounted for approximately 90.18 million therms.

3.7.2 REGULATORY SETTING

FEDERAL

Clean Air Act

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, hazardous air pollutant standards, State attainment plans, motor NAAQS vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The EPA is responsible for administering the FCAA. The FCAA requires the EPA to set NAAQS for several problem air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health, and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

On April 2, 2007, in the court case of *Massachusetts et al. vs. the USEPA et al.* (549 U.S. 497), the U.S. Supreme Court found that GHGs are air pollutants covered by the federal Clean Air Act (42 USC Sections 7401-7671q). The Supreme Court held that the Administrator of the United States Environmental Protection Agency must determine whether or not emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the Administrator is required to follow the language of Section 202(a) of the Clean Air Act. On December 7, 2009, the Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) in the atmosphere threaten the public health and welfare of current and future generations.

- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action was a prerequisite for implementing GHG emission standards for vehicles. In collaboration with the National Highway Traffic Safety Administration (NHTSA) and CARB, the USEPA developed emission standards for light-duty vehicles (2012-2025 model years), and heavy-duty vehicles (2014-2027 model years).

Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards.

Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the U.S. The Corporate Average Fuel Economy (CAFE) program, which is administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.

Energy Policy Act of 1992

The Energy Policy Act of 1992 (EPAAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAAct requires certain federal, State, and local government and private fleets to purchase a percentage of light duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are included in EPAAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005

The Energy Policy Act of 2005 was signed into law on August 8, 2005. Generally, the act provides for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for a clean

renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Federal Climate Change Policy

According to the EPA, “the United States government has established a comprehensive policy to address climate change” that includes slowing the growth of emissions; strengthening science, technology, and institutions; and enhancing international cooperation. To implement this policy, “the Federal government is using voluntary and incentive-based programs to reduce emissions and has established programs to promote climate technology and science.” The EPA administers multiple programs that encourage voluntary GHG reductions, including “ENERGY STAR”, “Climate Leaders”, and Methane Voluntary Programs. However, as of this writing, there are no adopted federal plans, policies, regulations, or laws directly regulating GHG emissions.

Mandatory Greenhouse Gas Reporting Rule

In 2009, EPA issued a final rule for mandatory reporting of GHGs from large GHG emissions sources in the United States. In general, this national reporting requirement will provide EPA with accurate and timely GHG emissions data from facilities that emit 25,000 metric tons or more of CO₂ per year. This publicly available data will allow the reporters to track their own emissions, compare them to similar facilities, and aid in identifying cost effective opportunities to reduce emissions in the future. Reporting is at the facility level, except that certain suppliers of fossil fuels and industrial GHGs along with vehicle and engine manufacturers will report at the corporate level. An estimated 85% of the total U.S. GHG emissions, from approximately 10,000 facilities, are covered by this final rule.

STATE

The California Legislature has enacted a series of statutes in recent years addressing the need to reduce GHG emissions all across the State. These statutes can be categorized into four broad categories: (i) statutes setting numerical statewide targets for GHG reductions, and authorizing CARB to enact regulations to achieve such targets; (ii) statutes setting separate targets for increasing the use of renewable energy for the generation of electricity throughout the State; (iii) statutes addressing the carbon intensity of vehicle fuels, which prompted the adoption of regulations by CARB; and (iv) statutes intended to facilitate land use planning consistent with statewide climate objectives. The discussion below will address each of these key sets of statutes, as well as CARB “Scoping Plans” intended to achieve GHG reductions under the first set of statutes and recent building code requirements intended to reduce energy consumption.

Statutes Setting Statewide GHG Reduction Targets

ASSEMBLY BILL 32 (GLOBAL WARMING SOLUTIONS ACT)

In 2006, the California State Legislature enacted the California Global Warming Solutions Act of 2006 (Health & Safety Code Section 38500 et seq.), also known as Assembly Bill (AB) 32 (Stats. 2006, ch. 488). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 required that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction would be accomplished through

an enforceable statewide cap on GHG emissions that was phased in starting in 2012. To effectively implement the cap, AB 32 directed the California Air Resources Board (CARB) to develop and implement regulations to reduce statewide GHG emissions from stationary sources. California achieved the goals of AB 32 four years early, when it reduced its emissions to 1990 levels by year 2016.

SENATE BILL 32

SB 32 (Stats. 2016, ch. 249) added Section 38566 to the Health and Safety Code. It provides that “[i]n adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by [Division 25.5 of the Health and Safety Code], [CARB] shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030.” In other words, SB 32 requires California, by 2030, to reduce its statewide GHG emissions so that they are 40 percent below those that occurred in 1990.

EXECUTIVE ORDERS S-3-05, B-30-15, AND B-55-18

The 2020 statewide GHG reduction target in AB 32 was consistent with the second of three (3) statewide emissions reduction targets set forth in former Governor Arnold Schwarzenegger’s 2005 Executive Order known as S-3-05, which is expressly mentioned in AB 32. (See Health & Safety Code Section 38501, subd. (i).) That Executive Branch document included the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. To meet the targets, the Governor directed several State agencies to cooperate in the development of a climate action plan. The Secretary of Cal-EPA leads the Climate Action Team, whose goal is to implement global warming emission reduction programs identified in the Climate Action Plan and to report on the progress made toward meeting the emission reduction targets established in the executive order.

In 2015, Governor Brown issued Executive Order, B-30-15, which created a “new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 is established in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050.” SB 32 codified this target.

In 2018, the Governor issued Executive Order B-55-18, which established a statewide goal to “achieve carbon neutrality as soon as possible, and no later than 2045, and maintain and achieve negative emissions thereafter.” The order directs CARB to work with other State agencies to identify and recommend measures to achieve those goals. As discussed below, the 2022 Scoping Plan lays out a path towards achieving carbon neutrality by 2045.

SB 350

Senate Bill 350 (SB 350) (Stats. 2015, ch. 547) added to the Public Utilities Code language that puts into statute the 2050 GHG reduction target identified in Executive Order S-3-05, albeit in the limited context of new state policies (i) increasing the overall share of electricity that must be produced through renewable energy sources and (ii) directing certain State agencies to begin planning for the

widespread electrification of the California vehicle fleet. Section 740.12(a)(1)(D) of the Public Utilities Code states that “[t]he Legislature finds and declares [that] ... [r]educing emissions of [GHGs] to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050 will require widespread transportation electrification.” Furthermore, Section 740.12(b) states that the California Public Utilities Commission (CPUC), in consultation with CARB and the California Energy Commission (CEC), must “direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, ... and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050.”

AB 1279

In September 2022, the Legislature enacted AB 1279 (Stats. 2022, ch. 337). The bill declares the policy of the state to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter. Additionally, the bill requires that by 2045, statewide anthropogenic GHG emissions be reduced to at least 85% below 1990 levels.

Statute Setting Target for the Use of Renewable Energy for the Generation of Electricity

CALIFORNIA RENEWABLES PORTFOLIO STANDARD

Senate Bill X1-2 (Stats. 2011, 1st Ex. Sess., ch. 1) set aggressive statutory targets for renewable electricity, culminating in the requirement that 33 percent of the State’s electricity come from renewables by 2020. This legislation applies to all electricity retailers in the State, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities were required to meet and have met the renewable energy goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and 33 percent by the end of 2020. (See Pub. Utility Code, Section 399.11 et seq. [subsequently amended].) SB 350, discussed below, increases the Renewable Portfolio Standard to require 50 percent of electricity generated to be from renewables by 2030. (Pub. Utility Code, Section 399.11, subd (a); see also Section 399.30, subd. (c)(2).) In 2018, Senate Bill 100 (Stats. 2018, ch. 312) revised the SB 350 targets so that the State will have to achieve a 50% renewable resources target by December 31, 2026 (instead of by 2030), and achieve a 60% target by December 31, 2030. The legislation also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all State agencies by December 31, 2045.

Statute Intended to Facilitate Land Use Planning Consistent with Statewide Climate Objectives

CALIFORNIA SENATE BILL 375 (SUSTAINABLE COMMUNITIES STRATEGY)

This 2008 legislation built on AB 32 by setting forth a mechanism for coordinating land use and transportation on a regional level for the purpose of reducing GHGs. The focus is to reduce miles traveled by passenger vehicles and light trucks. CARB is required to set GHG reduction targets for

each metropolitan region for 2020 and 2035.² Each of California's metropolitan planning organizations then prepares a sustainable communities strategy that demonstrates how the region will meet its GHG reduction target through integrated land use, housing, and transportation planning. Once adopted by the metropolitan planning organizations, the sustainable communities strategy is to be incorporated into that region's federally enforceable regional transportation plan. If a metropolitan planning organization is unable to meet the targets through the sustainable communities strategy, then an alternative planning strategy must be developed that demonstrates how targets could be achieved, even if meeting the targets is deemed to be infeasible.

Climate Change Scoping Plans

2022 SCOPING PLAN UPDATE

In accordance with AB 32, CARB developed the first Scoping Plan in 2008 to outline the State's strategy to achieve 1990 level emissions by year 2020. In May 2014, CARB released and adopted the *First Update to the Climate Change Scoping Plan* to identify the next steps in reaching AB 32 goals and evaluate the progress that has been made between 2000 and 2012. A newer version of the Scoping Plan was then adopted by CARB in December 2017 (entitled *California's 2017 Climate Change Scoping Plan*). Lastly, the most recent version of the Scoping Plan was adopted by the CARB in November 2022 (entitled *Final 2022 Scoping Plan for Achieving Carbon Neutrality*) (2022 Scoping Plan), which was designed consistent with the long-term GHG reduction targets embedded in AB 1279. Since adoption of the 2008 Scoping Plan and the subsequent updates in 2014, 2017, and 2022, State agencies have adopted programs identified in the plan, and the Legislature has passed additional legislation to achieve the GHG reduction targets. Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard, California Appliance Energy Efficiency regulations, California Building Standards (e.g., CALGreen and the 2022 Building and Energy Efficiency Standards), zero carbon electricity by 2045, and changes in the corporate average fuel economy standards (e.g., Pavley I and California Advanced Clean Cars)).

SB 605 AND SB 1383

SB 605 (2014) required CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants in the state, and SB 1383 (2016) required CARB to approve and implement that strategy by January 1, 2018. SB 1383 also establishes specific targets for the reduction of short-lived climate pollutants (40% below 2013 levels by 2030 for methane and HFCs, and 50% below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, CARB adopted its Short-Lived Climate Pollutant Reduction Strategy (Reduction Strategy) in March 2017. The Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, methane, and fluorinated gases.

² The San Joaquin COG region was assigned reduction targets of 12% by 2020 and 16% by 2035.

ASSEMBLY BILL 1757

AB 1757 (September 2022) requires the California Natural Resources Agency (CNRA) to determine a range of targets for natural carbon sequestration, and for nature-based climate solutions that reduce GHG emissions for future years 2030, 2038, and 2045. These targets are to be determined by no later than January 1, 2024, and are established to support the state's goals to achieve carbon neutrality and foster climate adaptation and resilience.

Building Code Requirements Intended to Reduce GHG Emissions

CALIFORNIA ENERGY CODE

The California Energy Code (CCR Title 24, Part 6), which is incorporated into the Building Energy Efficiency Standards, was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Although these standards were not originally intended to reduce GHG emissions, increased energy efficiency results in decreased GHG emissions because energy efficient buildings require less electricity and thus less consumption of fossil fuels, which emit GHGs. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

The most recent Title 24 standards are the 2022 Title 24 standards. Buildings permitted on or after January 1, 2023, must comply with the 2022 Standards. The California Energy Commission updates the standards every three (3) years. The CEC estimates that the 2022 Title 24 standards will reduce 10 million metric tons of GHG over 30 years. When compared to the 2019 Title 24 standards, the 2022 update focuses on: encouraging electric heat pump technology and use; establishing electric-ready requirements when natural gas is installed; expanding solar photovoltaic (PV) system and battery storage standards; and strengthening ventilation standards to improve indoor air quality.

CALIFORNIA GREEN BUILDING STANDARDS CODE

The purpose of the California Green Building Standards Code (CalGreen) (CCR Title 24, Part 11) is to improve public health and safety and to promote the general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: 1) planning and design; 2) energy efficiency; 3) water efficiency and conservation; 4) material conservation and resource efficiency; and 5) environmental quality. CalGreen, which became effective on January 1, 2011, instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial, low-rise residential uses, and State-owned buildings, as well as schools and hospitals. The mandatory standards require the following:

- 20 percent mandatory reduction in indoor water use relative to baseline levels;
- 50 percent construction/demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particle boards.

The voluntary standards require the following:

- Tier I: 15 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste, 10 percent recycled content, 20 percent permeable paving, 20 percent cement reduction, and cool/solar reflective roof.
- Tier II: 30 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste, 15 percent recycled content, 30 percent permeable paving, 30 percent cement reduction, and cool/solar reflective roof.

The latest version of CalGreen is the 2022 CalGreen Code, which became effective on January 1, 2023. Between 2010 and 2022, continuous updates and additions have been made to CALGreen, including water conservation and recycling, electric vehicle infrastructure and charging, and changes intended to eliminate conflicts with the California Energy Code, which is Part 6 of Title 24.

TITLE 20

CCR Title 20 requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low-voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

SENATE BILL 1

SB 1 (Murray) (August 2006) established a \$3 billion rebate program to support the goal of the state to install rooftop solar energy systems with a generation capacity of 3,000 megawatts through 2016. SB 1 added sections to the Public Resources Code, including Chapter 8.8 (California Solar Initiative), that require building projects applying for ratepayer-funded incentives for photovoltaic systems to meet minimum energy efficiency levels and performance requirements. Section 25780 established that it is a goal of the state to establish a self-sufficient solar industry. The goals included establishing solar energy systems as a viable mainstream option for homes and businesses within 10 years of adoption and placing solar energy systems on 50% of new homes within 13 years of adoption. SB 1, also termed "Go Solar California," was previously titled "Million Solar Roofs."

SOLID WASTE

AB 939, AB 341, and AB 1826. In 1989, AB 939, known as the Integrated Waste Management Act (PRC Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by 2000.

AB 341 (Chapter 476, Statutes of 2011 [Chesbro]) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal (CalRecycle, 2012).

AB 1826 (Chapter 727, Statutes of 2014, effective 2016) requires businesses to recycle their organic waste (i.e., food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste) depending on the amount of waste they generate per week. This law also requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. The minimum threshold of organic waste generation by businesses subject to the law decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

REGIONAL

PG&E adopted the 2020 Integrated Resource Plan (IRP) on September 1, 2020, to provide guidance for serving the electricity and natural gas needs of residents and businesses within its service area while fulfilling regulatory requirements. The IRP contains the following objectives that are relevant to the Project:

- **Clean Energy:** In 2021, PG&E delivered nearly 50 percent of its electricity from RPS-eligible renewable resources, such as solar, wind, geothermal, biomass, and small hydropower. In addition, PG&E's GHG-free energy production, which encompasses renewable resources, large hydropower, and nuclear, satisfied all of PG&E's bundled retail sales in 2021.
- **Reliability:** PG&E's IRP analysis includes PG&E's contribution to system and local reliability, in compliance with the CPUC's resource adequacy requirements, especially as California transitions toward higher shares of GHG-free generation resources.
- **Affordability:** PG&E's IRP analysis selects resources to meet the state's clean energy and reliability goals and provides a system average rate forecast in compliance with the CPUC's requirements for investor-owned utilities.

SAN JOAQUIN AIR POLLUTION CONTROL DISTRICT

Climate Change Action Plan

On August 21, 2008, the Valley Air District Governing Board approved a proposal called the Climate Change Action Plan (CCAP). The CCAP began with a public process bringing together stakeholders, land use agencies, environmental groups, and business groups to conduct public workshops to develop comprehensive policies for CEQA Guidelines, a carbon exchange bank, and voluntary GHG emissions mitigation agreements for the Governing Board's consideration. The CCAP contains the following goals and actions:

- Develop GHG significance thresholds to address CEQA projects with GHG emission increases.
- Develop the San Joaquin Valley Carbon Exchange for banking and trading GHG reductions.
- Authorize use of the SJVAPCD [Valley Air District's] existing inventory reporting system to allow use for GHG reporting required by AB 32 regulations.
- Develop and administer GHG reduction agreements to mitigate proposed emission increases from new projects.
- Support climate protection measures that reduce greenhouse gas emissions as well as toxic and criteria pollutants. Oppose measures that result in a significant increase in toxic or criteria pollutant emissions in already impacted areas.

Rule 2301

While the CCAP indicated that the GHG emission reduction program would be called the San Joaquin Valley Carbon Exchange, the Valley Air District incorporated a method to register voluntary GHG emission reductions into its existing Rule 2301-Emission Reduction Credit Banking through amendments of the rule. Amendments to the rule were adopted on January 19, 2012. The purposes of the amendments to the rule include the following:

- Provide an administrative mechanism for sources to bank voluntary GHG emission reductions for later use.
- Provide an administrative mechanism for sources to transfer banked GHG emission reductions to others for any use.
- Define eligibility standards, quantitative procedures, and administrative practices to ensure that banked GHG emission reductions are real, permanent, quantifiable, surplus, and enforceable.

LOCAL

Envision Stockton 2040 General Plan

The following policies and actions of the Stockton General Plan related to GHGs, climate change, and energy are applicable to the proposed Project:

POLICIES: LAND USE ELEMENT

- LU-1.1. Encourage retail businesses and housing development in mixed-use developments along regional transportation routes and in areas that serve local residents.
- LU-2.5. Promote Downtown Stockton as a primary transit node that provides multi-modal connections throughout the city and region.
- LU-3.2. Retain narrower roadways and reallocate right-of-way space to preserve street trees and mature landscaping and enhance the pedestrian and bicycle network within and adjacent to residential neighborhoods.
- LU-6.2. Prioritize development and redevelopment of vacant, underutilized, and blighted infill areas.
- LU-6.4. Ensure that land use decisions balance travel origins and destinations in as close proximity as possible and reduce vehicle miles traveled (VMT).
- LU-TR-1.1. Ensure that roadways safely and efficiently accommodate all modes and users, including private, commercial, and transit vehicles, as well as bicycles and pedestrians and vehicles for disabled travelers.

ACTIONS: LAND USE ELEMENT

- LU-1.1A. Require renovated and new mixed-use projects to be planned and designed to contribute to the corridor's identity through appropriate public spaces, gateways, streetscapes, pedestrian walkways, setbacks, edge treatments, and other design features.
- LU-1.1B. Evaluate the City's parking policies and amend the Development Code to provide more flexibility as appropriate to facilitate mixed-use redevelopment.
- LU-1.1D. Encourage the redevelopment of struggling underutilized commercial strips into multi-family housing opportunities.
- LU-2.5A. Improve transit, bicycle, and pedestrian connectivity between the Downtown and local colleges and universities.
- LU-2.5B. Study the possible one-way to two-way conversions of streets in the Downtown (e.g., El Dorado/Center, Park/Oak, and Main/Market) to improve pedestrian and bicycle safety, slow traffic speeds, and support local businesses.
- LU-2.5C. Continue to develop an active transportation plan for Downtown Stockton and implement complete streets projects to improve bicycle and pedestrian safety that are identified in the plan.
- LU-3.2A. Implement the "road diet" recommendations from the City's Bicycle Master Plan that reduce roadway widths to provide space for bike lanes and other amenities that improve safety and ease of the streetscape for all modes.
- LU-6.2A. Develop and implement an infill incentive program that encourages infill development through expedited permitting, changes in fee structures, prioritizing infrastructure improvements in infill areas, property owner and/or landlord incentives to maintain property and reduce blight, and/or other strategies. As part of this program, define and prioritize categories of infill types based on land use and residential density or nonresidential intensity.

- LU-6.2C. Ensure prioritization of development and redevelopment of vacant, underutilized, and blighted infill areas be considered through strategies such as zoning changes and strategies to avoid gentrification.
- LU-6.2D. Comply with State requirements that limit the idling of motor vehicles.
- LU-6.4B. Maintain a reasonable proximity and balance (i.e., magnitude) between job-generating uses, housing opportunities, and resident services and amenities, including transit and active transportation.
- LU-6.4C. Reduce Vehicle Miles Traveled (VMT) per household by planning new housing in closest proximity to employment centers, improving and funding public transportation and ridesharing, and facilitating more direct routes for pedestrians and bicyclists.

POLICIES: TRANSPORTATION ELEMENT

- TR-1.2. Enhance the use and convenience of rail service for both passenger and freight movement.
- TR-2.1. Develop safe and interconnected bicycle and pedestrian facilities, including along “complete” streets that target multiple travel modes.
- TR-2.3. Utilize natural features and routes with lower traffic volumes and speeds to encourage residents to walk and wheel more frequently.
- TR-3.1. Avoid widening existing roadways to preclude inducement of additional vehicle traffic.
- TR-3.2. Require new development and transportation projects to reduce travel demand and greenhouse gas emissions, support electric vehicle charging, and accommodate multi-passenger autonomous vehicle travel as much as feasible.
- TR-4.2. Replace LOS with: (1) vehicle-miles traveled (VMT) per capita; and (2) impacts to non-automobile travel modes, as the metrics to analyze impacts related to land use proposals under the California Environmental Quality Act, in accordance with SB 743.

ACTIONS: TRANSPORTATION ELEMENT

- TR-1.1A. Direct truck traffic to designated truck routes that facilitate efficient goods movement and minimize risk to areas with concentrations of sensitive receptors, such as schools, for example by disallowing any new truck routes to pass directly on streets where schools are located, and vulnerable road users, like pedestrians and bicyclists.
- TR-1.1B. Maintain and periodically update a schedule for synchronizing traffic signals along arterial streets and freeway interchanges to facilitate the safe and efficient movement of people and goods and to provide signal priority for transit vehicles at intersections.
- TR-1.1C. Require roadways in new development areas to be designed with multiple points of access and to address barriers, including waterways and railroads, in order to maximize connectivity for all modes of transportation.
- TR-1.1D. Update existing Precise Road Plans to reflect the 2040 General Plan, including changes in land use and level of service requirements, and a shift in priority from vehicular travel to travel by all modes through complete streets.

- TR-1.1E. Work with local school districts to implement pedestrian crossing enhancements like stop signs within neighborhoods around schools, encourage activities like a walking school bus, and create educational programs that teach students bicycle safety.
- TR-1.2A. Actively support and pursue access to high-speed rail.
- TR-1.2B. Support the San Joaquin Regional Transportation District's Regional Bus Service, Altamont Commuter Express (ACE), and AMTRAK's San Joaquin intercity rail service, and pursue and support other regional transit programs and projects, such as:
 - ACE plans to bypass existing bottlenecks (e.g., the Union Pacific railyards in South Stockton);
 - Connecting to the BART system;
 - Extending ACE service south to Merced; and
 - Proposing rail between Stockton and Sacramento along the California Traction and other rail corridors.
- TR-2.1A. Require safe and secure bicycle parking facilities to be provided at major activity centers such as public facilities, employment sites, and shopping and office centers, along with showers and lockers for major employment sites.
- TR-2.1B. Maintain and implement the City of Stockton Bicycle Master Plan.
- TR-2.1C. Maintain and implement the City of Stockton Safe Route to School Plan.
- TR-2.2A. Require major new development to incorporate and fund design features to promote safe and comfortable access to transit, such as a circulation network that facilitates efficient and connected bus travel, clear pedestrian and bicycle routes connecting origins and destinations to transit stops, sheltered bus stops, park-and-ride facilities, and highly visible transit information and maps.
- TR-2.2B. Obtain input from community residents, non-profit organizations, and local and regional transit operators on major new development projects, and support transit operators by ensuring major projects are designed to support transit and provide fair share funding of the cost of adequate transit service and access.
- TR-2.2C. Request that public transit service providers expand routes and increase frequency and operational hours consistent with current short- and long-range transit planning, with the assistance of new development funding.
- TR-2.2D. Support efforts to electrify buses.
- TR-2.3A. Develop and maintain bikeways on separate rights-of-way (e.g., Calaveras River, East Bay Municipal Utility District easement, French Camp Slough, and Shima Tract Levee).
- TR-2.3B. Require dedication of adequate right-of-way for bicycle use in new arterial and collector streets, and where feasible, in street improvement projects.
- TR-3.1A. Limit street widths to the minimum necessary to adequately carry the volume of anticipated traffic, while allowing for safe bicycle and pedestrian facilities, emergency access, and large vehicle access.
- TR-3.1B. Where feasible and appropriate, reduce the width of existing streets using bulb-outs, medians, pedestrian islands, shade tree landscaping, appropriate signage, and similar methods, while not jeopardizing emergency response.
- TR-3.1C. Preserve right-of-way for transit and bicycle uses when designing new roadways and improving existing roadways and ensuring adequate and clear signage.

- TR-3.2A. Amend the parking requirements in the Development Code to encourage shared parking, require preferential parking for rideshare vehicles, and allow reduced parking requirements to support transit, bicycling, and walking.
- TR-3.2B. Require commercial, retail, office, industrial, and multifamily residential development to provide charging stations and prioritized parking for electric and alternative fuel vehicles.
- TR-3.2C. Respond to the implications and opportunities associated with connected vehicles and autonomous vehicles by monitoring technological advances and adjusting roadway infrastructure and parking standards to accommodate autonomous vehicle technology and parking needs.
- TR-3.2D. Continue to coordinate with the San Joaquin Council of Governments to increase opportunities for additional park and ride facilities, consistent with the San Joaquin County Regional Park and Ride Lot Master Plan.
- TR-4.2A. To evaluate the effects of new development and determine mitigation measures and impact fees, require projects to evaluate per capita VMT and impacts to transit, bicycle, and pedestrian modes.
- TR-4.2B. Amend the City's Transportation Impact Analysis Guidelines to include alternative travel metrics and screening criteria.

POLICIES: SAFETY ELEMENT

- SAF-4.1. Reduce air impacts from mobile and stationary sources of air pollution.
- SAF-4.2. Encourage major employers to participate in a transportation demand management program (TDM) that reduces vehicle trips through approaches such as carpooling, vanpooling, shuttles, car-sharing, bikesharing, end-of-trip facilities like showers and bicycle parking, subscription bus service, transit subsidies, preferential parking, and telecommuting.
- SAF-4.3. Coordinate with the San Joaquin Valley Air Pollution Control District and non-profit organizations to promote public awareness on air quality issues and consistency in air quality impacts analyses.

ACTIONS: SAFETY ELEMENT

- SAF-4.1A. Require the construction and operation of new development to implement best practices that reduce air pollutant emissions, including:
 - Use of low-emission and well-maintained construction equipment, with idling time limits.
 - Development and implementation of a dust control plan during construction.
 - Installation of electrical service connections at loading docks, where appropriate.
 - Installation of Energy Star-certified appliances.
 - Entering into Voluntary Emissions Reduction Agreements with the San Joaquin Valley Air Pollution Control District.

- SAF-4.1B. Use the results of the Health Risk Assessments required by the California Air Toxics "Hot Spots" Act to establish appropriate land use buffer zones around any new sources of toxic air pollutants that pose substantial health risks.
- SAF-4.1C. Require the use of electric-powered construction and landscaping equipment as conditions of project approval when appropriate.
- SAF-4.1D. Limit heavy-duty off-road equipment idling time to meet the California Air Resources Board's idling regulations for on-road trucks.
- SAF-4.2D. Provide information and conduct marketing and outreach to major existing and new employers about the transportation demand management (TDM) program facilitated by the San Joaquin Council of Governments.
- SAF-4.3A. Distribute educational materials from the San Joaquin Valley Air Pollution Control District on the City's website and at its Permit Center.
- SAF-4.3B. Coordinate review of development project applications with the San Joaquin Valley Air Pollution Control District to ensure that air quality impacts are consistently identified and mitigated during CEQA review.

POLICIES: COMMUNITY HEALTH ELEMENT

- CH-5.1. Accommodate a changing climate through adaptation, mitigation, and resiliency planning and projects.
- CH-5.2. Expand opportunities for recycling, re-use of materials, and waste reduction.

ACTIONS: COMMUNITY HEALTH ELEMENT

- CH-5.1A. Upon the next revision of the City's Local Hazard Mitigation Plan, conduct a comprehensive climate change vulnerability assessment to inform the development of adaptation and resilience policies and strategies, and incorporate them into the Safety Element, in accordance with SB 379.
- CH-5.1B. Maintain and implement the City of Stockton Climate Action Plan (CAP) and update the CAP to include the following:
 - Updated communitywide GHG emissions inventory;
 - 2030 GHG emissions reduction target, consistent with SB 32;
 - Estimated 2030 GHG emissions reduction benefits of State programs;
 - Summary of the City's progress toward the 2020 local GHG emissions reduction target;
 - New and/or revised GHG reduction strategies that, when quantified, achieve the 2030 reduction target and continue emission reductions beyond 2030; and
 - New or updated implementation plan for the CAP.
- CH-5.1C. Accommodate a changing climate through adaptation and resiliency planning and projects.
- CH-5.2A. Use recycled materials and products for City projects and operations where economically feasible, and work with recycling contractors to encourage businesses to use

recycled products in their manufacturing processes and encourage consumers to purchase recycled products.

- CH-5.2B. Continue to require recycling in private and public operations, including construction/demolition debris.
- CH-5.2C. Expand educational and outreach efforts to promote recycling by occupants of multi-family housing, businesses, and schools.

City of Stockton Climate Action Plan

The City of Stockton Climate Action Plan (2014) sets forth a strategy to reduce community-generated GHG emissions, consistent with statewide GHG reduction efforts. As a condition for approval of the 2035 General Plan, the City of Stockton entered into a Settlement Agreement with the Sierra Club and the California Attorney General's Office in October 2008. The Settlement Agreement was enacted to ensure future growth outlined in the City of Stockton 2035 General Plan addresses GHG emissions in a meaningful and constructive manner. The City of Stockton Climate Action Plan (CAP) outlines a framework to feasibly reduce community GHG emissions in a manner that is supportive of AB 32 and is consistent with the Settlement Agreement and 2035 General Plan policy. The CAP is considered functionally equivalent to a "Qualified GHG Reduction Plan", given that both refer to a document that quantifies and reduces GHG emissions within a particular jurisdiction.

A "Qualified GHG Reduction Plan" under CEQA refers to a plan that meets specific criteria for reducing greenhouse gas (GHG) emissions. This plan is intended to be used as a tool for evaluating the environmental impacts of proposed projects and plans under CEQA.

A Qualified GHG Reduction Plan must:

1. Quantify existing and projected GHG emissions.
2. Develop a level of cumulative GHG emissions that, based on substantial evidence, would not be considered significant for CEQA purposes.
3. Specify measures and standards that would ensure the level of GHG emissions is achieved.
4. Include monitoring to track progress in achieving the GHG reduction goals.

The plan must also comply with CEQA Guidelines Section 15183.5, which outlines the requirements for Qualified GHG Reduction Plans. These plans are intended to be used for both project-level and plan-level analyses under CEQA.

The City of Stockton Climate Action Plan was approved by the Stockton City Council on December 2, 2014. The Climate Action Plan summarizes the City's GHG emissions inventory and provides 26 GHG emissions reduction measures. The CAP relies on numerous voluntary measures for both existing and new development, but also includes mandatory measures where required by other state or local existing mandates and other City initiatives. The CAP also provides implementation strategies for the emissions reduction measures provided within the CAP.

3.7.3 IMPACTS AND MITIGATION MEASURES

GREENHOUSE GAS EMISSIONS THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, climate change-related impacts are considered significant if implementation of the proposed Project would do any of the following:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The vast majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project's reasonably foreseeable incremental contribution towards climate change is cumulatively considerable (CEQA Guidelines, Section 15064.4.) "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of closely related past, current, and reasonably foreseeable probable future projects (CEQA Guidelines, Section 15355).

For future projects, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds, or consistency with a Qualified GHG Reduction Plan (such as a Climate Action Plan). (CEQA Guidelines, Section 15130.) The City of Stockton does have a formal Qualified GHG Reduction Plan, in the form of the City of Stockton Climate Action Plan (2014).

In addition, the Project is also assessed based on its consistency with CARB's adopted Scoping Plans, including the Project's compliance with relevant Scoping Plan measures, as well as the latest RTP/SCS for the region within which the Project is located (i.e., the San Joaquin Council of Governments (SJCOG) 2022 RTP/SCS). It should be noted that the Scoping Plan is consistent with the AB 1279 GHG reduction targets of achieving carbon neutrality by 2045 and reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. Therefore, consistency with the CARB's most recent Scoping Plan would also demonstrate consistency with the carbon neutrality requirements encapsulated by AB 1279. Furthermore, the Project is evaluated for its consistency with the City of Stockton Climate Action Plan (CAP), which was adopted in 2014.

Therefore, this analysis provides a qualitative assessment of the Project's compliance with the applicable plans, policies, and regulations for the purposes of reducing greenhouse gas emissions to determine whether the Project would have a significant impact on the environment relative to GHGs. The Project's estimated construction and operation-related GHG emissions are provided for the purposes of disclosure.³

³ Project GHG emissions were provided using the latest version of CalEEMod (v2022.1), which represents the Air District's recommended modeling tool for estimating emissions for projects under CEQA.

THRESHOLDS OF SIGNIFICANCE (ENERGY CONSERVATION)

Consistent with Appendices F and G of the CEQA Guidelines, energy-related impacts are considered significant if implementation of the proposed Project would do the following:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation;
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency;

In order to determine whether or not the proposed Project would have a significant impact on energy use, this EIR includes an analysis of proposed Project energy use, as provided under *Impacts and Mitigation Measures* below.

IMPACTS AND MITIGATION MEASURES

Impact 3.7-1: Project implementation would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases (Significant and Unavoidable)

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. Implementation of the Project would contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of CO₂ and other GHG pollutants, such as methane (CH₄) and nitrous oxide (N₂O), from mobile sources and utility usage.

The Project's short-term construction-related and long-term operational GHG emissions were estimated using the California Emission Estimator Model (CalEEMod)TM (v.2022.1). CalEEMod is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify GHG emissions from land use projects. The model quantifies direct GHG emissions from construction and operation (including vehicle use), as well as indirect GHG emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Emissions are expressed in annual metric tons of CO₂ equivalent units of measure (i.e., MT CO₂e), based on the global warming potential of the individual pollutants.

3.7 GREENHOUSE GASES, CLIMATE CHANGE AND ENERGY

SHORT-TERM CONSTRUCTION GHG EMISSIONS

Table 3.7-2 provides the assumptions associated with on-road construction vehicles. Further detail, including for default off-road construction parameters used, is provided in the CalEEMod results within Appendix B.

TABLE 3.7-2: ON-ROAD CONSTRUCTION VEHICLES MODELED

CALEEMOD PHASE	TRIP TYPE	ONE-WAY TRIPS PER DAY	MILES PER TRIP
Site Preparation	Worker	18	11.9
Grading	Worker	20	11.9
Building Construction	Worker	2,603	11.9
Building Construction	Vendor	1,1021	9.1
Paving	Worker	15	11.9
Architectural Coating	Worker	521	11.9

SOURCE: CALEEMOD (REFER TO APPENDIX B)

Estimated maximum mitigated GHG emissions associated with construction of the proposed Project are summarized in Table 3.7-3. These emissions include all worker vehicle, vendor vehicle, hauler vehicle, and off-road construction vehicle GHG emissions.

For the purposes of this analysis, based on input from the Project applicants, the proposed Project is assumed to commence construction in 2024 and finish in late 2039. It should be noted that this schedule is an approximation and may change over time. A regularized construction schedule was utilized for modelling purposes for the sake of simplicity.

TABLE 3.7-3: MAXIMUM CONSTRUCTION GHG EMISSIONS (MITIGATED AVERAGE MT CO₂E/YEAR)

YEAR	BIO- CO ₂	NON-BIO- CO ₂	TOTAL CO ₂	CH ₄	N ₂ O	REFRIGERANTS	CO ₂ E
2024	0	270	270	0.01	< 0.005	0.01	271
2025	0	723	723	0.03	0.01	0.03	725
2026	0	800	800	0.03	0.01	0.03	803
2027	0	1,484	1,484	0.04	0.09	0.90	1,512
2028	0	6,028	6,028	0.13	0.58	6.06	6,212
2029	0	6,049	6,049	0.13	0.58	5.34	6,231
2030	0	5,832	5,832	0.10	0.56	4.71	6,006
2031	0	5,587	5,587	0.09	0.45	4.11	5,728
2032	0	5,479	5,479	0.09	0.45	3.57	5,620
2033	0	5,343	5,343	0.09	0.43	3.05	5,476
2034	0	5,230	5,230	0.09	0.43	2.60	5,363
2035	0	5,126	5,126	0.09	0.40	2.19	5,251
2036	0	5,046	5,046	0.09	0.41	1.85	5,171
2037	0	5,008	5,008	0.09	0.41	1.55	5,132
2038	0	5,304	5,304	0.08	0.38	1.42	5,422
2039	0	439	439	0.01	< 0.005	0.13	440

SOURCES: CALEEMOD (V.2022.1)

NOTE: HIGHEST CO₂E VALUE IS BOLDED.

As presented in the table, short-term construction emissions of GHGs are estimated at a maximum of approximately 6,231 MT CO₂e per year, based on anticipated peak construction GHG emissions in around 2029.

OPERATIONAL GHG EMISSIONS

The operational GHG emissions estimate for the proposed Project includes on-site area, energy, mobile, waste, and water emissions generated by the Project during its operation. Estimated GHG emissions associated with the proposed Project are summarized in Table 3.7-4, below. It should be noted that CalEEMod does not account for the Governor Newsom's Zero-Emission by 2035 Executive Order (N-79-20), which requires that all new cars and passenger trucks sold in California be zero-emission vehicles by 2035. This is anticipated to substantially reduce the operational emissions associated with passenger vehicles (i.e. mobile emissions) over time. Therefore, the operational emissions results provided in Table 3.7-4 are likely an overestimate for mobile emissions, assuming the Executive Order is implemented. As shown in the following table, the annual mitigated GHG emissions associated with the proposed Project would be approximately 144,929 MT CO₂e.

TABLE 3.7-4: OPERATIONAL GHG EMISSIONS AT BUILDOUT (MITIGATED METRIC TONS/YEAR)

	Bio- CO ₂	Non-Bio- CO ₂	TOTAL CO ₂	CH ₄	N ₂ O	CO ₂ E
Area	0	91.0	91.0	< 0.005	< 0.005	91.3
Energy	0	11,837	11,837	1.64	0.17	11,928
Mobile	0	121,095	121,095	2.00	11.1	124,497
Waste	560	0	560	56.0	0	1,961
Water	450	428	878	46.2	1.11	2,363
Refrig.	0	0	0	0	0	4,089
Total	1,011	133,451	134,462	106	12.4	144,929

SOURCES: CAL EEMOD (V.2022.1)

According to the Traffic Study prepared for the proposed Project (Fehr & Peers, 2021), and as described in more detail in Section 3.13 of this EIR, the Project would increase automobile VMT by approximately 22,633 net new daily trips, which would generate substantial GHG emissions. The proposed Project would also generate substantial emissions from on-site energy, waste, and water emissions. Warehouse and other industrial uses tend to generate few workers per square foot, in comparison to other types of uses.

CONSISTENCY WITH 2022 SCOPING PLAN

CARB's 2022 Scoping Plan (the latest version of the Scoping Plan) provides policies that are considered needed to meet the State's mid-term and long-term GHG emissions reduction targets. Specifically, the CARB's *Final* 2022 Scoping Plan identifies that it "...lays out the sector-by-sector roadmap for California, the world's fifth largest economy, to achieve carbon neutrality by 2045 or earlier...". The Scoping Plan addresses recent legislation and direction from Governor Newsom, by extending and expanding upon the earlier Scoping Plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045 and adding carbon neutrality as a science-based guide and touchstone for California's climate work. The Scoping Plan is therefore consistent with the AB 1279 GHG reduction targets of achieving carbon neutrality by 2045 and reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. The Project's consistency with the applicable 2022 Scoping Plan policies is discussed in Table 3.7-5, below.

TABLE 3.7-5: PROJECT CONSISTENCY WITH THE 2022 SCOPING PLAN

POLICY	PROJECT CONSISTENCY
Transportation Electrification	
Convert local government fleets to ZEVs and provide EV charging at public sites	Consistent. While this goal is not applicable to a commercial and industrial development project, the Project includes an EV parking requirement and includes EV spaces consistent with the requirements of the California Energy Code (CCR Title 24, Part 6). Furthermore, Mitigation Measure 3.3-6 requires the installation of future electric vehicle charging stations for heavy-heavy duty (HHD) trucks, in connection with each individual development proposal. As described further under Mitigation Measure 3.3-6, the subject building improvement plans are required to identify an area (or areas) for future HHD truck charging stations and each subject developer is also required to install conduit from the power source to the identified area(s), as feasible.
Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans)	
VMT Reduction	
Reduce or eliminate minimum parking standards	Consistent. Although this goal is not applicable to a commercial and industrial development project, the Project would reduce VMTs through implementation of Mitigation Measure 3.13-1, which requires the Project applicant to work with the City of Stockton to implement feasible Transportation Demand Management (TDM) strategies, which would decrease the VMT generated. Furthermore, Mitigation Measure 3.13-2 would also be required to be implemented, which requires the project to implement SJVAPCD Rule 9410. Rule 9410 requires employers with at least 100 employees to implement a trip reduction/transportation demand management program, or ETRIP. ETRIP requirements are consistent with a Commute Trip Reduction program recommended by the traffic impact study as a mitigation measure.
Implement Complete Streets policies and investments, consistent with general plan circulation element requirements	
Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.	
Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking	
Implement parking pricing or transportation demand management pricing strategies	
Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing the allowable density of a neighborhood)	
Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert “greenfield” land to urban uses (e.g., green belts, strategic conservation easements)	
Building Decarbonization	
Adopt all-electric new construction reach codes for residential and commercial uses	Consistent. Although this goal is not applicable to a commercial and industrial development project, the Project would be consistent with the applicable Title 24 Building Envelope Energy Efficiency Standards, which ensure highly energy
Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient	

<i>POLICY</i>	<i>PROJECT CONSISTENCY</i>
systems (such as Energy Star-rated equipment and equipment controllers)	efficient development. Additionally, the proposed Project would utilize electricity from PG&E, which has been increasing its overall supply of renewable energy as part of its overall energy portfolio, consistent with the State's Renewable Portfolio Standard. Furthermore, Mitigation Measure 3.3-5 requires each developer of an individual specific development proposal to prepare the subject building structures in such a way to accommodate future solar panels pursuant to applicable Building Code requirements. More detail is provided under Impact 3.7-2, below.
Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances	
Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing)	
Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings)	

SOURCE: 2022 SCOPING PLAN, TABLE 1, APPENDIX D

The proposed Project's operational emissions would be reduced as regulations are implemented by the CARB and other State agencies to comply with the statewide GHG reduction targets. Many of these regulations are already identified in the 2022 Scoping Plan. These statewide actions are anticipated to reduce operational GHG emissions even further below those identified in Table 3.7-4. For example, the proposed Project's transportation emissions would be expected to decline as vehicle efficiency standards are implemented beyond the Advanced Clean Cars II program and the Low Carbon Fuel Standard is strengthened. Furthermore, CalEEMod does not account for Governor Newsom's Zero-Emission by 2035 Executive Order (N-79-20) or CARB's subsequent regulations, which requires that all new cars and passenger trucks sold in California be zero-emission vehicles by 2035. This is anticipated to substantially reduce the operational emissions associated with passenger vehicles (i.e. mobile emissions) further, over time.

Overall, the proposed Project would not conflict with the 2022 Scoping Plan. The proposed Project would be developed according to the latest State and federal regulatory requirements, including those associated with operational building energy efficiency. Therefore, the Project would be considered consistent with the 2022 Scoping Plan. Based on this, recognizing the CARB as an authoritative substantial evidence source in evaluating post-2020 GHG impacts, since the proposed Project would be consistent with the CARB's 2022 Scoping Plan, buildout of the proposed Project would not interfere with the main programs the CARB has identified to support its conclusions that the State is on a trajectory to meet the 2045 GHG target. Overall, the proposed Project would not impede the 2022 Scoping Plan and would help the State to progress towards this target.

CONSISTENCY WITH SJCOG'S 2022 RTP/SCS

The SJCOG's 2022 RTP/SCS includes eight policies with corresponding implementation strategies for conserving energy, maximizing mobility and accessibility, increasing safety and security, preserving the transportation system, supporting economic development, promoting interagency cooperation and public participation, maximizing cost effectiveness, and improving quality of life for residents. These strategies include similar measures to the 2022 Scoping Plan, such as supporting energy and

water efficiency. The Project's consistency with the applicable 2022 RTP/SCS strategies is discussed in Table 3.7-6, below.

TABLE 3.7-6: PROJECT CONSISTENCY WITH THE SJCOG's 2022 RTP/SCS

POLICY	PROJECT CONSISTENCY
Enhance the Environment for Existing and Future Generations and Conserve Energy	Consistent. The Project would utilize electricity provided by Pacific Gas & Electric (PG&E) which is required to meet the future year renewable portfolio performance standards. In addition, future development associated with Project implementation would be required to meet the applicable requirements of the 2022 (or more current) Title 24 Building Energy Efficiency Standards. Moreover, the Project would implement various mitigation measures, such as Mitigation Measure 3.3-5, which requires the preparation of subject building structures in such a way to accommodate future solar panels; Mitigation Measure 3.3-6, which requires the installation of future electric vehicle charging stations for heavy-heavy duty (HHD) trucks; Mitigation Measure 3.3-7, which requires all forklifts, yard trucks, and other equipment used for on-site movement of trucks, trailers, and warehoused goods, as well as landscaping maintenance equipment used on the site, to be electrically powered or zero-emission.
Maximize Mobility and Accessibility	Consistent. The Project would support EV-ready charging spaces, consistent with the requirements of the latest version of the Title 24 Building Energy Efficiency Standards. In addition, although this Project is not a transportation improvement project, the Project is located in a city where regional transit improvements are planned. Moreover, the proposed Project would include many project features that improve mobility and accessibility, including improving local roadways.
Increase Safety and Security	Consistent. The Project would be developed using the latest State and local requirements relating to safety and security. Development of the Project site would include other uses to support and complement the proposed residential development include public utility infrastructure, public and private roadways, curb/gutters/sidewalks, other pedestrian facilities, private parking, street lighting, and street signage, which would enhance the safety and security of the site and its surroundings, by connecting to existing development.
Preserve the Efficiency of the Existing Transportation System	Not applicable. This is not a transportation improvement project and is therefore not applicable. However, roadway improvements within the vicinity of the Project site are proposed, which would increase the efficiency of the local transportation system. Moreover, the Project would not interfere with the efficiency of any existing transportation system. Lastly, the Project is required to implement Mitigation Measure 3.13-1, which requires the Project applicant to work with the City of Stockton to implement feasible Transportation Demand Management (TDM) strategies, which would decrease the VMT generated. Furthermore, Mitigation Measure 3.13-2 would also be required to be implemented, which requires the project to implement SJVAPCD Rule 9410. Rule 9410 requires employers with at least 100 employees to implement a trip reduction/transportation demand management program, or ETRIP. ETRIP requirements are consistent with a Commute Trip Reduction program recommended by the traffic impact study as a mitigation measure.
Support Economic Vitality	Consistent. The proposed Project would create local jobs as well as provide new taxable revenue, thereby supporting economic vitality.
Promote Interagency Coordination and Public Participation for Transportation	Not applicable. This is not a transportation planning or improvement project and is therefore not applicable.

<i>POLICY</i>	<i>PROJECT CONSISTENCY</i>
Decision-Making and Planning Efforts	
Maximize Cost Effectiveness	Consistent. The proposed Project would be developed based on market demand. Therefore, implementation of the Project would be consistent with this policy.
Improve the Quality of Life for Residents	Consistent. The proposed Project would local jobs and ancillary local economic activity (including generate more local tax revenue), thereby improving the quality of life for the local community.

SOURCE: SJCOG 2022 RTP/SCS

As shown in Table 3.7-6, above, the Project would not conflict with any of the GHG emissions reduction strategies contained in the SJCOG's 2022 RTP/SCS. Therefore, the Project would be consistent with SJCOG's 2022 RTP/SCS.

EXECUTIVE ORDER S-3-05

The Executive Order S-3-05 2050 target has not been codified by legislation. However, studies have shown that, to meet the 2050 target, aggressive pursuit of technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. Because of the technological shifts required and the unknown parameters of the regulatory framework in 2050, quantitatively analyzing the Project's impacts further relative to the 2050 goal is speculative for purposes of CEQA.⁴

CARB recognizes that AB 32 establishes an emissions reduction trajectory that will allow California to achieve the more stringent 2050 target: "These [greenhouse gas emission reduction] measures also put the State on a path to meet the long-term 2050 goal of reducing California's GHG emissions to 80 percent below 1990 levels. This trajectory is consistent with the reductions that are needed globally to stabilize the climate." In addition, the CARB's First Update to the Scoping Plan "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050," and many of the emission reduction strategies recommended by the CARB would serve to reduce the proposed project's post-2020 emissions level to the extent applicable by law:

- Energy Sector: Continued improvements in California's appliance and building energy efficiency programs and initiatives, such as the State's zero net energy building goals, would serve to reduce the proposed project's emissions level. Additionally, further additions to California's renewable resource portfolio would favorably influence the project's emissions level.
- Transportation Sector: Anticipated deployment of improved vehicle efficiency, zero-emission technologies, lower carbon fuels, and improvement of existing transportation systems all will serve to reduce the project's emissions level.

⁴ California Air Resources Board (CARB). 2014. First Update to the Climate Change Scoping Plan. Website: <http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm>. Accessed September 11, 2023.

3.7 GREENHOUSE GASES, CLIMATE CHANGE AND ENERGY

- Water Sector: The project's emissions level will be reduced as a result of further utilization of water conservation technologies.
- Waste Management Sector: Plans to further improve recycling, reuse and reduction of solid waste will beneficially reduce the project's emissions level.

In his January 2015 inaugural address, Governor Brown expressed a commitment to achieve “three ambitious goals” that he wanted to see accomplished by 2030 to reduce the State's GHG emissions:

- Increasing the State's Renewable Portfolio Standard from 33 percent in 2020 to 50 percent in 2030;
- Cutting the petroleum use in cars and trucks in half; and
- Doubling the efficiency of existing buildings and making heating fuels cleaner.

These expressions of executive branch policy may be manifested in adopted legislative or regulatory action through the State agencies and departments responsible for achieving the State's environmental policy objectives, particularly those relating to global climate change.⁵

Further, studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the Statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target.⁶

Given the proportional contribution of mobile source-related GHG emissions to the State's inventory, recent studies also show that relatively new trends—such as the increasing importance of web-based shopping, the emergence of different driving patterns, and the increasing effect of web-based applications on transportation choices—are beginning to substantially influence transportation choices and the energy used by transportation modes. These factors have changed the direction of transportation trends in recent years and will require the creation of new models to effectively analyze future transportation patterns and the corresponding effect on GHG emissions. For the reasons described above, the proposed project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets.

⁵ Brown, Edmund G. Jr. 2015. Press Release: California Establishes Most Ambitious Greenhouse Gas Goal in North America. April 29.

Website: <https://www.gov.ca.gov/news.php?id=18938>. Accessed February 2, 2021.

⁶ Energy and Environmental Economics, 2015. Pathways to Deep Carbonization in the United States.

Website: http://deepdecarbonization.org/wp-content/uploads/2015/11/US_Deep_Decarbonization_Technical_Report_Exec_Summary.pdf. Accessed June 8, 2022.

CONSISTENCY WITH THE CITY OF STOCKTON CLIMATE ACTION PLAN

The proposed Project would be consistent with the relevant GHG reduction measures associated with the City of Stockton Climate Action Plan (CAP), published in 2014. Table 3.3-7, below, provides an analysis of the consistency of the proposed Project with the GHG reduction measures contained within the CAP. As shown, the proposed Project would be consistent with all applicable GHG reduction measures that would be applicable to the proposed Project.

TABLE 3.7-7: PROJECT CONSISTENCY WITH THE CITY OF STOCKTON CLIMATE ACTION PLAN

<i>GHG REDUCTION MEASURE</i>	<i>PROJECT CONSISTENCY</i>
Energy-1: Green Building Ordinance	No Conflict. The Project would exceed the 2008 Title 24 of the California Code of Regulations Standards, since the most recent version of the Title 24 Standards is much more stringent. Simply meeting the current Title 24 Standards would result in significant energy and GHG savings for the City because the state has regularly updated the Title 24 requirements since 2005 and plans to continue to update the Title 24 standards periodically in the future. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Energy-2: Outdoor Lighting Upgrades for Existing Development	Not applicable. The proposed Project is a new development; therefore, GHG reduction measures associated with existing development would not apply.
Energy-3: Energy Efficiency Incentives and Programs to Promote Retrofits for Existing Residential Buildings	Not applicable. The proposed Project is a new nonresidential development; therefore, GHG reduction measures associated with existing development would not apply.
Energy-4: Energy Efficiency Programs to Promote Retrofits for Existing Non-Residential Buildings	Not applicable. The proposed Project is a new development; therefore, GHG reduction measures associated with existing development would not apply.
Energy-5: Solar-Powered Parking	No Conflict. The Project would be consistent with the current Title 24 Standards associated with solar PV. Specifically, based on the 2022 version of the Title 24 standards, the solar PV systems must be sized to meet approximately 60% of the building's electricity loads, based on factors such as conditioned floor area, climate zone, and building type. Although there is flexibility with regard to the location of the solar PV systems, it is anticipated that some or all of them would be located within solar-powered parking stalls. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Energy-6: Residential and Non-residential Rooftop Solar	No Conflict. The Project would be consistent with the current Title 24 Standards associated with solar PV. As described under GHG Reduction Measure Energy-6, based on the 2022 version of the Title 24 standards, the solar PV systems must be sized to meet approximately 60% of the building's electricity loads, based on factors such as conditioned floor area, climate zone, and building type. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Trans-1: Land Use/Transportation System Design Integration	No Conflict. The Project would increase density in the City of Stockton, thereby facilitating additional land use and existing transportation integration. Moreover, the proposed Project would be constructed on what can be considered underutilized land. Therefore, the proposed Project would not conflict with this GHG reduction measure.

<i>GHG REDUCTION MEASURE</i>	<i>PROJECT CONSISTENCY</i>
Trans-2: Parking Policies	Not applicable. This GHG reduction measure would apply to the downtown area. Since the proposed Project is not located in the downtown area, this GHG reduction measure would not apply to the proposed Project.
Trans-3: Transit System Support	No Conflict. The Project would not hinder the development of the City's transit system. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Trans-4: Efficient Goods Movement	Not applicable. This GHG reduction measure would apply to the City's rail lines. Therefore, this GHG reduction measure would not apply to the proposed Project.
Trans-5: Reduce Barriers for Non-Motorized Travel	No Conflict. The Project would connect the City's existing transportation system. Furthermore, the Project would add sidewalks to some nearby roadways. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Trans-6: Transit System Improvements	No Conflict. This GHG reduction measure would apply to the City's transit system. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Trans-7: Safe Routes to School	No Conflict. The Project would not conflict with any safe routes to school. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Trans-8: Transportation Demand Management and Additional Safe Routes to School	No Conflict. The Project would not conflict with any safe routes to school. Moreover, the Project would reduce VMTs through implementation of Mitigation Measure 3.13-1, which requires the Project applicant to work with the City of Stockton to implement feasible Transportation Demand Management (TDM) strategies, which would decrease the VMT generated. Furthermore, Mitigation Measure 3.13-2 would also be required to be implemented, which requires the project to implement SJVAPCD Rule 9410. Rule 9410 requires employers with at least 100 employees to implement a trip reduction/transportation demand management program, or ETRIP. ETRIP requirements are consistent with a Commute Trip Reduction program recommended by the traffic impact study as a mitigation measure. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Waste-1: Increased Waste Diversion	No Conflict. The Project would not conflict with the State's 75% waste diversion goal as required by AB 341. It should be noted that AB 341 has been superseded by California's SB 1383, which sets a more stringent goal of diverting 75% of the waste stream from landfills by 2025 and includes enforcement mechanisms, such as monetary fines, for non-compliance. The Project would be required to comply with SB 1383, and since AB 341 has come and gone, the Project would not conflict with requirements associated with AB 341. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Water-1: Comply with Senate Bill X7-7	No Conflict. The Project would be consistent with the State's statewide goal of a 20% reduction in urban per capita use, as required by Senate Bill X7-7. Senate Bill X7-7 is a California state law that requires the state to reduce urban water consumption by 20% by the year 2020. Since the year 2020 has come and gone, the Project would not conflict with this law. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Water-2: Promotion of Water-Efficiency for Existing Development	Not applicable. This GHG reduction measure would apply only to existing development. The proposed Project does not contain any existing development; rather, it includes new development. Therefore, this GHG reduction measure would not apply to the proposed Project.

<i>GHG REDUCTION MEASURE</i>	<i>PROJECT CONSISTENCY</i>
Wastewater-1: Energy Efficiency Improvements at the Regional Wastewater Treatment Plant	No Conflict. The Project would not conflict with the City's goal of reducing energy usage at the Regional Wastewater Treatment Plant. The Project is not anticipated to be a large generate of wastewater demand, since it is a commercial and industrial project. Additionally, the Project would not hinder energy efficiency improvements or other upgrades at the Regional Wastewater Treatment Plant. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Urban Forestry-1: Urban Tree Planting Programs	No Conflict. The Project would include landscaping trees that would not conflict with this GHG reduction measure.
High GWP GHG-1: Residential Responsible Appliance Disposal Programs	Not Applicable. The Project is a new development that would install new energy-efficient refrigerators and freezers. Therefore, the proposed Project would not conflict with the goal of replacing existing inefficient sources of high global warming potential (GWP) appliances. Moreover, it should be noted that this GHG reduction measures would only apply to residential development. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Off-Road-1: Electric-Powered Construction Equipment	No Conflict. The Project would not conflict with the City's goal of increasing the percentage of construction equipment that is electric powered. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Off-Road-2: Reduced Idling Times for Construction Equipment	No Conflict. The Project would comply with the CARB's Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, which currently limits diesel-fueled commercial motor vehicle idling time to 5 minutes. Therefore, the proposed Project would not conflict with this GHG reduction measure.
Off-Road-3: Electric Landscaping Equipment	No Conflict. The Project would not conflict with the City's goal of 15% of the City's landscaping equipment to be electric or battery powered. Mitigation Measure 3.3-7 requires landscaping maintenance equipment used on the site to be electrically powered or zero-emission, unless new technology is determined to be commercially unavailable or infeasible to utilize. Therefore, the proposed Project would not conflict with this GHG reduction measure.

SOURCE: CITY OF STOCKTON CLIMATE ACTION PLAN, 2014

CONSISTENCY WITH THE CITY'S INDUSTRIAL WAREHOUSE ORDINANCE

The City of Stockton has adopted an Industrial Warehouse Ordinance. Specifically, at the City's December 12, 2023, City Council meeting, the City Council adopted the Stockton Municipal Code (SMC) Title 16 Ordinance (Ordinance) establishing new logistics warehouse development standards. These standards became effective on January 11, 2024. The approved Ordinance established standards for logistics warehouses in zoning districts where they are allowed in compliance with the provisions of Division 2 (Zoning Districts, Allowable Land Uses, and Zone-Specific Standards). These standards apply to logistics warehouses 100,000 square feet in size or greater, which means they are applicable to the proposed Project. The Ordinance requires specific site plan design and building design, more stringent construction permit approval standards, and other requirements for ongoing operations, which were designed to be consistent with the California Department of Justice's "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act" document for use by municipalities in the design and development of

new industrial projects.⁷ These requirements help to reduce the potential for warehouse projects, such as the proposed Project, to generate significant air quality and/or greenhouse gas emissions impacts (among other considerations). Refer to the ‘City of Stockton Warehouse Ordinance Compliance’ discussion in Section 2.0: Project Description, for a thorough analysis of the Project’s consistency with the City of Stockton Warehouse Ordinance.

Furthermore, as described in Section 3.3: Air Quality of this Recirculated Draft EIR, Mitigation Measures 3.3-1 through 3.3-22 have been designed to be consistent with and go above and beyond both the City’s Ordinance as well as the California Department of Justice’s “Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act” document. These enhanced mitigation measures have been incorporated into this document to ensure consistency with the Ordinance. Moreover, .

CONCLUSION

The proposed Project would be consistent with relevant plans, policies, and regulations associated with GHGs, notably the most recent version of the CARB’s Scoping Plan, the SJCOG’s 2022 RTP/SCS, the City of Stockton Climate Action Plan, and the City of Stockton Industrial Warehouse Ordinance. This would ensure that the proposed Project would be consistent with, and would not impair, the State’s carbon neutrality standard by the year 2045 as established under AB 1279. The State is making progress toward reducing GHG emissions in key sectors such as transportation, industry, and electricity. Since the Project would be consistent with State GHG Plans, it would not impede the State’s goals of reducing GHG emissions 40 percent below 1990 levels by 2030, and of achieving carbon neutrality by 2045. The proposed Project would make a reasonable fair share contribution to the State’s GHG reduction goals, by implementing a wide array of Project features that would substantially reduce GHG emissions. In addition, the proposed Project would be required to implement mitigation measures 3.3-1 through 3.3-22, as provided in Section 3.3: Air Quality. This would also ensure the proposed Project is consistent with the City of Stockton’s Industrial Warehouse Ordinance, effective as of January 11, 2024. However, even with implementation of all feasible mitigation, it may not be feasible for all individual projects to reduce operational emissions at full Project buildout below the applicable thresholds. Therefore, the proposed Project’s criteria pollutant emissions would be considered to have a **significant and unavoidable** impact.

MITIGATION MEASURE(S)

Implement Mitigation Measures 3.3-1 through 3.3-22.

Impact 3.7-2: Project implementation would not result in the inefficient, wasteful, or unnecessary use of energy resources (Less than Significant)

The CEQA Guidelines requires consideration of the potentially significant energy implications of a Project. CEQA requires mitigation measures to reduce “wasteful, inefficient and unnecessary” energy usage (Public Resources Code Section 21100, subdivision [b][3]). According to the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy

⁷ See: <https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf>

consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources (CEQA Guidelines, Appendix F: Energy Conservation).⁸In particular, the proposed Project would be considered “wasteful, inefficient, and unnecessary” if it were to violate State and federal energy standards and/or result in significant adverse impacts related to Project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation (Cal. Code Regs. tit. 14 § 15126.2).⁹

The proposed Project includes a Tentative Map for the 422.2-acre site to create 13 development lots, two (2) basin lots, two (2) open space lots, one (1) sewer pump station lot, and off-site sewer improvements. Of the 13 development lots, 12 will be for development of a mix of industrial uses and one will be for development of commercial uses.

The amount of energy used by the proposed Project during operation would directly correlate with the amount of energy used by Project buildings and outdoor lighting, and the generation of vehicle trips associated with the proposed Project. Other Project energy uses include fuel used by vehicle trips generated during Project construction and operation, fuel used by off-road construction vehicles during construction activities, and fuel used by Project maintenance activities during Project operation. The following discussion provides a detailed calculation of energy usage expected for the proposed Project, as provided by applicable modelling software (i.e. CalEEMod v2022.1 and the CARB EMFAC2021). Additional assumptions and calculations are provided within Appendix B.3 of this EIR.

ELECTRICITY AND NATURAL GAS

Electricity and natural gas used by the proposed Project would be used primarily to generate energy for outdoor parking lot lighting, as well as to power Project buildings. Table 3.7-8 provides a summary of the anticipated electricity and natural gas demand for each of the modeled land uses (within CalEEMod) for the proposed Project. It should be noted that the land uses used for modeling within CalEEMod were selected on a ‘best-fit basis’, as proxies, since the model only provides a limited number of land use options.

⁸ See:

https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2016_CEQA_Statutes_and_Guidelines_Appendix_F.pdf

⁹ See: <https://casetext.com/regulation/california-code-of-regulations/title-14-natural-resources/division-6-resources-agency/chapter-3-guidelines-for-implementation-of-the-california-environmental-quality-act/article-9-contents-of-environmental-impact-reports/section-151262-consideration-and-discussion-of-significant-environmental-impacts>

3.7 GREENHOUSE GASES, CLIMATE CHANGE AND ENERGY

TABLE 3.7-8: OPERATIONAL ENERGY CONSUMPTION

LAND USE	ELECTRICITY (KWH/YEAR)	NATURAL GAS (KBTU/YEAR)
General Heavy Industry	4,404,797	17,678,365
Other Asphalt Surfaces	0	0
Other Non-Asphalt Surfaces	0	0
City Park	0	0
Regional Shopping Center	1,222,740	1,210,603
Industrial Park	19,123,763	26,378,490
Unrefrigerated Warehouse-No Rail	40,044,967	21,317,679
Refrigerated Warehouse-No Rail	22,356,491	17,678,365
	Sum	
	87,152,758	84,263,502

SOURCE: CALCEEMOD (v.2022.1).

Separately, as shown in the following table, “Energy” is one of the categories that was modeled for GHG emissions. The total unmitigated and mitigated GHG emissions generated from the “Energy” category is 11,928 MT CO₂e.

TABLE 3.7-9: OPERATIONAL ENERGY GHG EMISSIONS

SECTOR	BIO-CO ₂	NON-BIO-CO ₂	CO ₂	CH ₄	N ₂ O	REFRIGERANTS	CO ₂ E
Energy	0	11,837	11,837	11,837	0.17	-	11,928

SOURCE: CALCEEMOD (v.2022.1).

ON-ROAD VEHICLES (OPERATION)

The proposed Project would generate vehicle trips during its operational phase. A description of Project operational on-road mobile energy usage is provided below.

According to the Traffic Study prepared for the proposed Project (Fehr & Peers, 2021), and as described in more detail in Section 3.13 of this EIR, the Project would increase generate approximately 22,633 net new daily trips. Table 3.7-10 provides a summary of the trips by vehicle class.

TABLE 3.7-10: VEHICLE TRIPS BY VEHICLE TYPE

VEHICLE TYPE	ONE-WAY TRIPS
Passenger Vehicles	17,081
Heavy-duty Trucks	5,552
Total	22,633

SOURCE: FEHR & PEERS, 2021

In order to calculate operational on-road vehicle energy usage and emissions, De Novo Planning Group used fleet mix data from the CalCEEMod (v2022.1) output for the proposed Project, Year 2040 gasoline and diesel MPG (miles per gallon) factors for individual vehicle classes as provided by

EMFAC2021, weighted average MPG factors for gasoline and diesel were derived. Therefore, upon full buildout, the proposed Project would generate operational vehicle trips that would use a total of approximately 434 gallons of gasoline and 508 gallons of diesel per day, or 158,363 gallons of gasoline and 185,485 gallons of diesel per year.

ON-ROAD VEHICLES (CONSTRUCTION)

The proposed Project would also generate on-road vehicle trips during Project construction (from construction workers and vendors travelling to and from the Project site). De Novo Planning Group estimated the vehicle fuel consumed during these trips based the assumed construction schedule, vehicle trip lengths and number of workers per construction phase as provided by CalEEMod, and Year 2021 gasoline and diesel MPG factors provided by EMFAC2021 (year 2021 factors were used to represent a conservative analysis, as the energy efficiency of construction activities is anticipated to improve over time). For the sake of simplicity, it was assumed that all construction worker light duty passenger cars and truck trips use gasoline as a fuel source, and all medium and heavy-duty vendor trucks use diesel fuel. Table 3.7-11, below, describes gasoline and diesel fuel consumed during each construction phase (in aggregate). As shown, the vast majority of on-road mobile vehicle fuel used during the construction of the proposed Project would occur during the building construction phase. There is no feasible mitigation available that would reduce on-road mobile vehicle GHG emissions generated by the Project construction activities (requiring the use of electric construction vehicles at this time was deemed infeasible, given price and availability concerns).^{10,11} See Appendix B.3 of this EIR for a detailed accounting of construction on-road vehicle fuel usage estimates.

TABLE 3.7-11: ON-ROAD MOBILE FUEL GENERATED BY PROJECT CONSTRUCTION ACTIVITIES – BY PHASE

CONSTRUCTION PHASE	# OF DAYS	TOTAL DAILY WORKER TRIPS(A)	TOTAL DAILY VENDOR TRIPS(A)	TOTAL HAULER WORKER TRIPS(A)	TOTAL GALLONS OF GASOLINE FUEL(B)	TOTAL GALLONS OF DIESEL FUEL(B)
Site Preparation	239	18	0	0	1,834	0
Grading	618	20	0	0	5,270	0
Paving	440	15	0	0	2,814	0
Building Construction	2,904	130	51	0	161,148	250,717
Architectural Coatings	550	26	0	0	6,109	0
Total	N/A	N/A	N/A	N/A	177,175	250,717

NOTE: ^(A) PROVIDED BY CALEEMOD OUTPUT. TRIPS ARE ONE-WAY TRIPS. ^(B) SEE APPENDIX B.3 OF THIS EIR FOR FURTHER DETAIL
SOURCE: CALEEMOD (v.2022.1); EMFAC2021.

¹⁰ Electric construction vehicles continue to have challenges and limitations, including limited battery life and charging times, which can impact job site productivity; higher upfront costs compared to traditional diesel-powered equipment; limited availability of charging infrastructure on construction sites; and need for further development of electric motors, batteries, and charging systems to meet the demands of heavy construction equipment.

¹¹ See: <https://www.equipmentworld.com/alternative-power/article/15304893/are-electric-construction-machines-going-to-keep-coming>

OFF-ROAD VEHICLES (CONSTRUCTION)

Off-road construction vehicles would use diesel fuel during the construction phase of the proposed Project. A non-exhaustive list of off-road constructive vehicles expected to be used during the construction phase of the proposed Project includes: forklifts, generator sets, tractors, excavators, and dozers. Based on the total amount of CO₂ emissions expected to be generated by the proposed Project (as provided by the CalEEMod output), and standard conversion factors (as provided by the U.S. Energy Information Administration), the proposed Project would use a total of approximately 213,863 gallons of diesel fuel for off-road construction vehicles. Detailed calculations are provided in Appendix B of this EIR.

CONCLUSION

The proposed Project would use energy resources for the operation of Project buildings (natural gas and electricity), outdoor lighting (electricity), for on-road vehicle trips (e.g. gasoline and diesel fuel) rerouted by the proposed Project, and from off-road and on-road construction activities associated with the proposed Project (e.g. diesel fuel). Each of these activities would require the use of energy resources. The proposed Project would be responsible for conserving energy, to the extent feasible, and relies heavily on reducing per capita energy consumption to achieve this goal, including through statewide and local measures.

The proposed Project would be in compliance with all applicable federal, State, and local regulations regulating energy usage. For example, PG&E, the electric and natural gas provider to the proposed Project, is responsible for the mix of energy resources used to provide electricity for its customers, and it is in the process of implementing the statewide RPS to increase the proportion of renewable energy (e.g. solar and wind) within its energy portfolio. PG&E is expected to achieve at least a 33% mix of renewable energy resources by 2020, and 60% by 2030. Other statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g. the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time.

The proposed Project would comply with all existing energy standards and would not be expected to result in significant adverse impacts on energy resources. For these reasons, the proposed Project would not cause an inefficient, wasteful, or unnecessary use of energy resources nor cause a significant impact on any of the threshold as described by the *CEQA Guidelines*. This is a ***less than significant*** impact.

The purpose of this section is to disclose and analyze the potential impacts associated with hazards and hazardous materials related to the Project site and general vicinity, and to analyze the potential for exposure of people to hazards and hazardous materials as the Project is built and operated in the future. This section is based in part on the:

- *Envision Stockton 2040 General Plan* (City of Stockton, 2018);
- *Envision Stockton 2040 General Plan Update Draft Environmental Impact Report* (City of Stockton, 2018);
- City of Stockton Municipal Code;
- Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Search (United States Environmental Protection Agency [EPA], 2021);
- Envirostar database search (California Department of Toxic Substances Control [DTSC], 2021);
- GeoTracker Information System and Geographic Environmental Information Management System database search (State Water Resources Control Board [SWRCB], 2020);
- National Priorities List (NPL) of Superfund Sites and Proposed NPL Sites (United States EPA, 2020);
- Toxics Release Inventory (TRI) Program database search (United States EPA], 2019);
- *California Airport Land Use Planning Handbook* (California Department of Transportation, Division of Aeronautics, 2011);
- *Airport Land Use Compatibility Plan for Stockton Metropolitan Airport* (San Joaquin Council of Governments, 2018);
- Web Soil Survey (United States Department of Agriculture Natural Resources Conservation Service, 2019); and
- *Custom Soils Report for San Joaquin County, California* (NRCS, 1992).

Comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the following: California Department of Justice (November 24, 2020). Each of the comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

As discussed in the Initial Study (see Appendix A), impacts related to wildfires would be less than significant. Additionally, the Project site is not located within a very high fire hazard severity zone; therefore, the thresholds associated with the Project's proximity to state responsibility areas or lands classified as very high fire hazard severity zones are not applicable to the Project and there is no impact associated with these thresholds. As such, these CEQA topics are not relevant to the Project and will not be addressed further.

3.8.1 ENVIRONMENTAL SETTING

PHYSICAL SETTING

Project Location

The proposed Project site is comprised of 422.22 acres located in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport. The Project site is located west of the 99 Frontage Road and State Route (SR) 99 and east of Airport Way. The Union Pacific Railroad (UPRR) extends south from Airport Way bisecting the western portion of the site. French Camp Slough extends southeast from Airport Way across the southwestern portion of the site. It continues east under the UPRR and then south across the southwestern portion of the site, before continuing south off-site. The Project also includes off-site sewer improvements located along and adjacent to existing Project area roadways.

Figures 2.0-1 and 2.0-2 show the Project's regional location and vicinity.

Existing Site Uses

The Project site is comprised of active agricultural fields. The agricultural lands on the Project site have been used historically for intensive agricultural purposes. The majority of the fields produce watermelons, with a walnut orchard located in the eastern portion of the site. The off-site sewer improvements would be located along the western site frontage on Airport Way, head north along Airport Way, and terminate in Airport Way and Industrial Drive to the north.

Figure 2.0-4 shows aerial imagery of the current existing site uses within the Project site.

Existing Surrounding Uses

The Project site is primarily bounded by lands within the County to the north, east and south. Lands within the City of Stockton are located to the west. Uses within the surrounding area include the following:

- North – Rydberg Creek, Army National Guard and Stockton. These uses are located within the County.
- East – Agricultural lands, 99 Frontage Road and SR 99.
- South – Agricultural lands and Duck and Lone Tree Creeks (French Camp Slough).
- West – The UPRR, Airport Way, and agricultural lands.

Site Topography

The Project site is relatively flat and ranges in elevation from approximately 14 to 40 feet above mean sea level.

Site Soils

A Custom Soil Survey was completed for the Project site using the National Resources Conservation Services (NRCS) Web Soil Survey program. The NRCS Soils Map provided in Figure 3.2-1 in Section

3.2, Agricultural Resources, identifies the type and range of soils found in the Project site, which is summarized below in Table 3.8-1.

TABLE 3.8-1: NRCS SOIL SERIES INFORMATION

UNIT SYMBOL	NAME	SOURCE MATERIAL	DRAINAGE	PERCENT OF AOI
170	Hollenbeck silty clay, 0-2 percent slopes	Alluvium derived from mixed rock sources	Moderately well drained	0.05%
250	Stockton Clay, 0 to 2 percent slopes	Alluvium derived from mixed rock sources	Somewhat poorly drained	37.90%
180	Jacktane clay, 0 to 2 percent slopes	Alluvium derived from mixed rock sources	Somewhat poorly drained	62.05%

NOTE: THIS TABLE DOES NOT INCLUDE THE 4.3 ACRES OF WATER WITHIN THE AOI.

SOURCE: NRCS WEB SOIL SURVEY 2020.

HAZARDS ASSESSMENT

For the purposes of this EIR, “hazardous material” is defined as provided in California Health & Safety Code, Section 25501:

- Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.

“Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

“Hazardous waste” is a subset of hazardous materials. For the purposes of this EIR, the definition of hazardous waste is essentially the same as that in the California Health & Safety Code, Section 25517, and in the California Code of Regulations (CCR), Title 22, Section 66261.2:

- Hazardous wastes are wastes that, because of their quantity, concentration, physical, chemical, or infectious characteristics, may either cause, or significantly contribute to, an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

CCR Title 22 categorizes hazardous waste into hazard classes according to specific characteristics of ignitability, corrosivity, reactivity, or toxicity. Hazardous waste with any of these characteristics is also known as a Resource Conservation and Recovery Act (RCRA) waste.

Hazardous materials can be categorized as hazardous non-radioactive chemical materials, radioactive materials, toxic materials, and biohazardous materials. The previous definitions are adequate for non-radioactive hazardous chemicals. Radioactive and biohazardous materials are further defined as follows:

3.8 HAZARDS AND HAZARDOUS MATERIALS

- Radioactive materials contain atoms with unstable nuclei that spontaneously emit ionizing radiation to increase their stability.
- Radioactive wastes are radioactive materials that are discarded (including wastes in storage) or abandoned.
- Toxic wastes are harmful or fatal when ingested or absorbed (e.g., containing mercury, lead). When toxic wastes are land disposed, contaminated liquid may leach from the waste and pollute groundwater.
- Biohazardous materials include materials containing certain infectious agents (microorganisms, bacteria, molds, parasites, and viruses) that cause or significantly contribute to increased human mortality or organisms capable of being communicated by invading and multiplying in body tissues.
- Medical wastes include both biohazardous wastes (byproducts of biohazardous materials) and sharps (devices capable of cutting or piercing, such as hypodermic needles, razor blades, and broken glass) resulting from the diagnosis, treatment, or immunization of human beings, or research pertaining to these activities.

There are countless categories of hazardous materials and hazardous wastes that could be found on any given property based on past uses. Some common examples include agrichemicals (chlorinated herbicides, organophosphate pesticides, and organochlorine pesticides, such as such as Mecoprop (MCP), Dinoseb, chlordane, dichloro-diphenyltrichloroethane (DDT), and dichloro-diphenyl-dichloroethylene (DDE)), petroleum-based products (oil, gasoline, diesel fuel), a variety of chemicals including paints, cleaners, and solvents, and asbestos-containing or lead-containing materials (e.g., paint, sealants, pipe solder).

Adjoining Properties

The Project site is generally bounded on the north by an industrial park and the Stockton Metropolitan Airport, on the east by agricultural land and 99 Frontage Road/State Route (SR) 99, on the south agricultural land, and on the west by Airport Way and agricultural land.

Site Reconnaissance

Site reconnaissance was conducted in July and August 2020¹; however, it should be noted that portions of the property were limited during the site reconnaissance due to the active agricultural uses on-site, including orchards and alfalfa crops. At the time of the survey, the Project site consisted of alfalfa fields, a walnut orchard, and small areas of fallow field and natural landscape. The alfalfa fields were planted in rotation, allowing recently mowed sections to be available for survey at regular intervals. The single walnut orchard was flood-irrigated regularly but allowed to dry thoroughly between floods, making survey possible.

On-site soil was uniform in a medium-dark brown color and shade with no indication of staining. Survey visibility was good for all areas of the Project site. Mowing and grooming of the fields and

¹ Peak & Associates, Inc. 2020. *Determination of Eligibility and Effect for the South Stockton Commerce Center Project* [pages 19-21].

orchard, as well as disking of the non-planted areas along the slough provided a clear view of the soil. Soil disturbance was moderate, with few or no rodent dens observed, but plowing and road maintenance allowed for some subsurface inspection. Aside from crops, vegetation includes a sparse riparian zone tight against the slough consisting of tule sedges, occasional oak trees, and other bushes and grasses and trees.

No aboveground storage tanks (ASTs) were observed on-site. Additionally, there are no known underground storage tanks within the Project site.

Historic Site Conditions

The land of the Project site included portions of holdings of three individuals in 1895: P.G. Sharp to the north in sections 26 and 38, J.T. Salmon in sections 27 and 39, and the estate of Cutler Salmon on the east side of the property. The Project vicinity was a typical agricultural area prior to World War I, but the interest in aviation generated by the war soon had an effect on this rural area near the Stockton Metropolitan Airport. By 1925, the area in the vicinity of the Project site was part of a large agricultural and stock raising operation, the Wilber Salmon Ranch (Peak & Associates, Inc., 2020).

Historical Use Information

Historical information was reviewed to develop a history of the previous uses on the Project site and surrounding area, in order to evaluate the Project site and adjoining properties for evidence of Recognized Environmental Conditions. Standard historical sources reviewed during the preparation of this report included the following, as available: Aerial Photographs, Environmental Records, and Databases.

AERIAL PHOTOGRAPHS

Aerial photographs of the Project site and general vicinity were reviewed. In 1993, the Project site appeared to be used for agricultural purposes while the lands to the north appear developed with the industrial park and Stockton Metropolitan Airport as it is today. The UPRR tracks that bisect the western portion of the Project site as well as the French Slough and French Camp Slough Levee Road/North Fork Lj creek Levee Road in the southwestern portion of the Project site appear to have already been developed. From 1993 to present, the Project site appears to have been active agricultural fields.

ENVIRONMENTAL RECORDS

A search of local, state, and federal agency databases for the Project site and known contaminated sites in the vicinity was performed. None of the parcels in the Project site were found to contain any known contamination.

The U.S. Environmental Protection Agency (EPA) Toxic Release Inventory (TRI) does not list data on disposal or other releases of toxic chemicals in the Project site (USEPA, 2015). There are 17 TRI facilities in the City of Stockton. The nearest TRI site is Valimet (ID: 95206VLMTN431SP) located at 431 Sperry Road, approximately 1.5 miles northwest of the Project site.

3.8 HAZARDS AND HAZARDOUS MATERIALS

The California Department of Toxic Substances Control (DTSC) maintains the *Envirostor Data Management System*, which provides information on hazardous waste facilities (both permitted and corrective action) as well as any available site cleanup information. There are no sites listed in the Envirostor database within the Project site. The nearest site listed on the Envirostor database is the Former Sharpe Army Depot Annex located on 100 acres adjacent to the Project site at the Stockton Metropolitan Airport and industrial park southwest of the airport. This site served as an Army post during World War II and is listed as a Military Evaluation Cleanup Site on Envirostor. In April 2014, the Department of Toxic Substance Control concurred that there is no Department of Defense Action Indicated on this site based on continued use of the property post transfer; therefore, the site received a “No Further Action” status.

GeoTracker is the State Water Resources Control Board’s (SWRCB’s) Internet-accessible database system used by the SWRCB, regional boards, and local agencies to track and archive compliance data from authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from underground storage tanks (USTs). See Table 3.8-2 for a complete list of sites identified by the GeoTracker database within 0.5 miles of the Project site.

TABLE 3.8-2: GEOTRACKER HAZARDOUS MATERIAL RELEASE SITES WITHIN 0.5 MILES OF PROJECT SITE

SITE NAME	TYPE	CLEANUP STATUS	ADDRESS
Army Aviation Support Facility (T0607700364)	Cleanup Program Site	Completed – Case Closed	2000 Stimson Road
California Army National Guard Combined Support Maintenance Shop (T10000006628)	Cleanup Program Site	Completed – Case Closed	8020 South Airport Way
California Army National Guard Facility – Field Maintenance Shop #24 (T0607700742)	Cleanup Program Site	Open – Remediation	8020 Airport Way S
California Army National Guard – Parent Facility (SL186403611)	Cleanup Program Site	Open – Remediation	2000 Stimson Road
Mosquito Abatement Dist #2 (T0607700664)	LUST Cleanup Site	Completed – Case Closed	7759 Airport Way S
Consolidated Freightways (T0607700100)	LUST Cleanup Site	Completed – Case Closed	7611 Airport Way S
American Savings & Loan Association (T0607700251)	LUST Cleanup Site	Completed – Case Closed	1888 Lockheed Court
Career Aviation (Former) (T0607700806)	LUST Cleanup Site	Completed – Case Closed	6250 Lindbergh Street
Stockton Metropolitan Airport (T0607700159)	LUST Cleanup site	Completed – Case Closed	5000 Airport Way S

NOTE: LUST = LEAKING UNDERGROUND STORAGE TANK.

SOURCE: SWRCB, GEOTRACKER, 2020.

The Solid Waste Information System (SWIS) is a database of solid waste facilities that is maintained by the California Integrated Waste Management Board (CIWMB). The SWIS data identifies active, planned and closed sites. The Project site does not have any active or planned solid waste facilities

listed in the database. The nearest active facility, Forward Landfill Inc., is located approximately 1.0 miles east of the Project site.

DATABASES

There is a broad list of federal and state databases that provide information for sites with varying potential for risk from the possible existence of hazardous materials. There are numerous redundancies among these various database listings. Below is a brief summary of each.

National Priorities List: The National Priorities List (NPL) of Superfund Sites and Proposed NPL Sites is EPA's database of more than 1,200 sites designated or proposed for priority cleanup under the Superfund program. NPL sites may encompass relatively large areas. The Project site is not listed in this database.

RCRIS System: The Resource Conservation and Recovery Information System (RCRIS) is an EPA database that includes selective information on sites that generate, transport, store, treat, and/or dispose of hazardous waste as defined by RCRA. Identification on this list does not indicate that there has been an impact on the environment. The Project site is not listed in this database.

CERCLIS Data: Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) is an EPA database that contains information on potentially hazardous waste sites that have been reported to the EPA by states, municipalities, private companies, and individuals, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites that are either proposed for or on the NPL, as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Project site is not listed in this database.

CORRACTS: Corrective Action Report (CORRACTS) is an EPA database that identifies hazardous waste handlers with RCRA corrective action activity. The Project site is not listed in this database.

Cortese Database: The Cortese database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release, and all solid waste disposal facilities from which there is known hazardous substance migration. The source of this database is the California Environmental Protection Agency (Cal-EPA) and are found in the GeoTracker database. The Project site is not listed in this database.

GeoTracker has replaced past databases, such as the Leaking Underground Storage Tank Information System (LUSTIS) and the Underground Storage Tank (UST) database. Permitted USTs are not located in the Project site. The nearest permitted UST is located at a Stockton Army Aviation Supply Facility, located at 2000 Stimson Road approximately 0.1 miles north of the Project site.

Hazardous Material Sites

As noted above, the State of California Hazardous Waste and Substances Site List (also known as the "Cortese List") is a planning document used by the state, local agencies, and developers to comply with the California Environmental Quality Act (CEQA) requirements for providing information about

3.8 HAZARDS AND HAZARDOUS MATERIALS

the location of hazardous materials sites. Government Code Section 65962.5 requires the Cal EPA to annually update the Cortese List. The DTSC is responsible for preparing a portion of the information that comprises the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information that is part of the complete list.

GeoTracker is a geographic information system (GIS) that provides online access to environmental data and is the interface to the Geographic Environmental Information Management System (GEIMS), a data warehouse which tracks regulatory data about underground fuel tanks, fuel pipelines, and public drinking water supplies. Searches of the above resources and records identified nine hazardous material sites within 0.5 miles and 14 hazardous material sites within 1.0 mile of the Project site known to handle and store hazardous materials that are associated with a hazardous material related release or occurrence. The terms "release" or "occurrence" include any means by which a substance could harm the environment: by spilling, leaking, discharging, dumping, injecting, or escaping. Table 3.8-3 displays the known hazardous material sites within 0.5 miles and 1.0 mile of the Project site with a description of the hazards provided. It should be noted that the Project site and the surrounding areas do not contain identified oil and gas monitoring wells.

TABLE 3.8-3: GEOTRACKER HAZARDOUS MATERIAL RELEASE SITES WITHIN 1.0 MILE OF PROJECT SITE

<i>SITE NAME</i>	<i>TYPE</i>	<i>CLEANUP STATUS</i>	<i>ADDRESS</i>
Army Aviation Support Facility (T0607700364)	Cleanup Program Site	Completed – Case Closed	2000 Stimson Road
California Army National Guard Combined Support Maintenance Shop (T10000006628)	Cleanup Program Site	Completed – Case Closed	8020 South Airport Way
California Army National Guard Facility – Field Maintenance Shop #24 (T0607700742)	Cleanup Program Site	Open – Remediation	8020 Airport Way S
California Army National Guard – Parent Facility (SL186403611)	Cleanup Program Site	Open – Remediation	2000 Stimson Road
Mosquito Abatement Dist #2 (T0607700664)	LUST Cleanup Site	Completed – Case Closed	7759 Airport Way S
Consolidated Freightways (T0607700100)	LUST Cleanup Site	Completed – Case Closed	7611 Airport Way S
American Savings & Loan Association (T0607700251)	LUST Cleanup Site	Completed – Case Closed	1888 Lockheed Court
Career Aviation (Former) (T0607700806)	LUST Cleanup Site	Completed – Case Closed	6250 Lindbergh Street
Stockton Metropolitan Airport (T0607700159)	LUST Cleanup Site	Completed – Case Closed	5000 Airport Way S
AG Spanos Jet Center (T0607700867)	LUST Cleanup Site	Completed – Case Closed	4800 Airport Road S
PG&E General Construction Yard (SL0607753482)	Cleanup Program Site	Completed – Case Closed	401 E French Camp Road (French Camp, CA)
J.R. Simplot Company (former UAP/Pacifex) (SLT5S7293752)	Cleanup Program Site	Open – Inactive	8858 Priest Road (French Camp, CA)
AERO Industries (T0607700070)	LUST Cleanup Site	Completed – Case Closed	4807 Airport Way S

<i>SITE NAME</i>	<i>TYPE</i>	<i>CLEANUP STATUS</i>	<i>ADDRESS</i>
ACE Tomato Co Inc. (T0607793851)	LUST Cleanup Site	Completed – Case Closed	2771 E French Camp Road (Manteca, CA)

NOTE: LUST = LEAKING UNDERGROUND STORAGE TANK.

SOURCE: SWRCB, GEOTracker, 2020.

As noted previously, none of the parcels in the Project site were found to contain any known contamination. Two open cases, the California Army National Guard Facility – Field Maintenance Shop #24 cleanup program site and the California Army National Guard Facility – Parent Facility cleanup program site, are both located approximately 0.05 miles and 0.1 miles north of the Project site, respectively.

Transportation of Hazardous Materials

The transportation of hazardous materials within the City of Stockton Planning Area is subject to various federal, state, and local regulations. The following provisions are included in the California Vehicle Code (CVC) and pertain to the transportation of hazardous related materials.

- The Highway Patrol designates the routes in California which are to be used for the transportation of explosives. (Section 31616)
- The CVC applies when the explosives are transported as a delivery service for hire or in quantities in excess of 1,000 pounds. The transportation of explosives in quantities of 1,000 pounds or less, or other than on a public highway, is subject to the California Health and Safety Code. (Section 31601(a))
- It is illegal to transport explosives or inhalation hazards on any public highway not designated for that purpose, unless the use of the highway is required to permit delivery of, or the loading of, such materials. (Section 31602(b) and Section 32104(a))
- When transporting explosives through or into a city for which a route has not been designated by the Highway Patrol, drivers must follow routes as may be prescribed or established by local authorities. (Section 31614(a))
- Inhalation hazards and poison gases are subject to additional safeguards. These materials are highly toxic, spread rapidly, and require rapid and widespread evacuation if there is loss of containment or a fire. The Highway Patrol designates through routes to be used for the transportation of inhalation hazards. It may also designate separate through routes for the transportation of inhalation hazards composed of any chemical rocket propellant. (Section 32100 and Section 32102(b))

In addition to area roadways, hazardous materials are routinely transported on Union Pacific Railroad lines that bisect the Project site. Hazardous materials are transported on these lines. The risk of accidents, and more specifically accidents involving hazardous materials, is relatively low. The U.S. Department of Transportation Federal Railroad Administration found the UPRR company train accident rate to be 4.18 train accidents per one million train miles traveled, resulting in a less than 0.001% chance of an accident. Risk of a railroad accident containing hazardous materials is considered much lower, as only an average of eight accidents involving hazardous material spills occur annually in California.

The Union Pacific Railroad Company does implement a security plan in compliance with the Department of Transportation Final Rule 49 CFR Part 172 Hazardous Materials (HM 232): Security Requirements for Offerors and Transporters of Hazardous Materials. The plan includes requirements to enhance the security of transported hazardous materials and ensures proper cleanup procedures in the instance of an accidental release.

HAZARDS FROM AIR TRAFFIC

The State Division of Aeronautics has compiled extensive data regarding aircraft accidents around airports in California. This data is much more detailed and specific than data currently available from the FAA and the National Transportation Safety Board (NTSB). According to the California Airport Land Use Planning Handbook (2011), prepared by the State Division of Aeronautics, 21 percent of general aviation accidents occur during takeoff and initial climb and 44.2 percent of general aviation accidents occur during approach and landing. The State Division of Aeronautics has plotted accidents during these phases at airports across the country and has determined certain theoretical areas of high accident probability.

Approach and Landing Accidents

As nearly half of all general aviation accidents occur in the approach and landing phases of flight, considerable work has been done to determine the approximate probability of such accidents. Nearly 77 percent of accidents during this phase of flight occur during touchdown onto the runway or during the roll-out. These accidents typically consist of hard or long landings, ground loops (where the aircraft spins out on the ground), departures from the runway surface, etc. These types of accidents are rarely fatal and often do not involve other aircraft or structures. Commonly these accidents occur due to loss of control on the part of the pilot and, to some extent, weather conditions. (California Division of Aeronautics, 2011).

The remaining 23 percent of accidents during the approach and landing phase of flight occur as the aircraft is maneuvered towards the runway for landing, in a portion of the airspace around the airport commonly called the traffic pattern. Common causes of approach accidents include the pilot's misjudging of the rate of descent, poor visibility, unexpected downdrafts, or tall objects beneath the final approach course. Improper use of rudder on an aircraft during the last turn toward the runway can sometimes result in a stall (a cross-control stall) and resultant spin, causing the aircraft to strike the ground directly below the aircraft. The types of events that lead to approach accidents tend to place the accident site fairly close to the extended runway centerline. The probability of accidents increases as the flight path nears the approach end of the runway. (California Division of Aeronautics, 2011).

According to aircraft accident plotting provided by the State Division of Aeronautics, most accidents that occur during the approach and landing phase of flight occur on the airport surface itself. The remainder of accidents that occur during this phase of flight are generally clustered along the extended centerline of the runway, where the aircraft is flying closest to the ground and with the lowest airspeed. (California Division of Aeronautics, 2011).

Takeoff and Departure Accidents

According to data collected by the State Division of Aeronautics, nearly 65 percent of all accidents during the takeoff and departure phase of flight occur during the initial climb phase, immediately after takeoff. This data is correlated by two physical constraints of general aviation aircraft:

- The takeoff and initial climb phase are times when the aircraft engine(s) is under maximum stress and is thus more susceptible to mechanical problems than at other phases of flight; and
- Average general aviation runways are not typically long enough to allow an aircraft that experiences a loss of power shortly after takeoff to land again and stop before the end of the runway.

While the majority of approach and landing accidents occur on or near to the centerline of the runway, accidents that occur during initial climb are more dispersed in their location as pilots are not attempting to get to any one specific point (such as a runway). Additionally, aircraft vary widely in payload, engine power, glide ratio, and several other factors that affect glide distance, handling characteristics after engine loss, and general response to engine failure. This further disperses the accident pattern. However, while the pattern is more dispersed than that seen for approach and landing accidents, the departure pattern is still generally localized in the direction of departure and within proximity of the centerline. This is partially due to the fact that pilots are trained to fly straight ahead and avoid turns when experiencing a loss of power or engine failure. Turning flight causes the aircraft to sink faster and flying straight allows for more time to attempt to fix the problem (California Division of Aeronautics, 2011).

Stockton Metropolitan Airport

The Stockton Metropolitan Airport is located to the north of the Project site, approximately 0.18 miles from the northeast corner of the Project site to the airport runway and 1.0 mile to the main airport building. This airport is a County-owned facility that occupies approximately 1,609 acres at an elevation of 23 feet above mean sea level (MSL). The acreage within the airport influence area is 56,184 acres.

The Stockton Metropolitan Airport is designated as a Non-hub Commercial Service Airport within the Federal Aviation Administration's (FAA) National Plan of Integrated Airport Systems (NPIAS). The airport is served by Allegiant Air, which provides service to Phoenix/Mesa, Arizona and Las Vegas, Nevada. In addition to commercial service, Stockton Metropolitan Airport offers a wide range of fixed base operators (FBOs) providing fuel, aircraft maintenance, aircraft hangar and tie-down rental, aircraft rental, flight training, aircraft management services, and pilot lounges for corporate and general aviation pilots. The airport also houses FBOs that support air cargo operations.

Stockton Metropolitan Airport is served by a parallel runway system in a northwest-southeast orientation. Runway 11L-29R is 10,650 feet long and 150 feet wide and is constructed of asphalt. Runway 11R-29L is 4,448 feet long and 75 feet wide and also constructed of asphalt. Runway 11L-29R is accommodated by several instrument approach procedures aiding pilots in navigation to the runway. Runway 29R contains a medium intensity approach lighting system with runway alignment lights (MALSR) to provide runway alignment guidance for pilots in reduced visibility conditions.

Runway 11L-29R is served by a four-light Precision Approach Path Indicator (PAPI- 4) at both ends and contains high intensity runway lighting (HIRL) to indicate the location of the runway edge. Runway 11R-29L does not contain approach or runway edge lighting.

The Project site is located within the airport influence area for the Stockton Metropolitan Airport identified in the Airport Land Use Compatibility Plan (ALUCP). The northeastern corners of the Project site are within CNEL 60 noise exposure contours and the eastern portion of the Project site is within the SEL Contour. Additionally, the whole Project site is located within Traffic Pattern Zone 7a of the Airport's Safety Zones, as identified in the Airport's ALUCP.

3.8.2 REGULATORY SETTING

FEDERAL

The primary federal agencies that are responsible for overseeing regulations and policies regarding hazardous materials are the Environmental Protection Agency (EPA), Department of Labor Occupational Safety and Health Administration (OSHA), and the Department of Transportation (DOT). Several laws governing the transport, storage, and use of hazardous materials are governed by these agencies as well as oversight for contaminated sites cleanup. Federal laws and regulations that are applicable to hazards and hazardous materials are presented below.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act, as amended, is the basic statute regulating hazardous materials transportation in the United States. The purpose of the law is to provide adequate protection against the risks to life and property inherent in transporting hazardous materials in interstate commerce. This law gives the U.S. Department of Transportation (USDOT) and other agencies the authority to issue and enforce rules and regulations governing the safe transportation of hazardous materials (DOE 2002).

Natural Gas Pipeline Safety Act

The Natural Gas Pipeline Safety Act authorizes the U.S. Department of Transportation Office of Pipeline Safety to regulate pipeline transportation of natural (flammable, toxic, or corrosive) gas and other gases as well as the transportation and storage of liquefied natural gas. The Office of Pipeline Safety regulates the design, construction, inspection, testing, operation, and maintenance of pipeline facilities. While the federal government is primarily responsible for developing, issuing, and enforcing pipeline safety regulations, the pipeline safety statutes provide for State assumption of the intrastate regulatory, inspection, and enforcement responsibilities under an annual certification. To qualify for certification, a state must adopt the minimum federal regulations and may adopt additional or more stringent regulations as long as they are not incompatible.

Resource Conservation and Recovery Act

The 1976 Federal Resource Conservation and Recovery Act (RCRA) and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and non-hazardous wastes. The legislation mandated that hazardous wastes be tracked from the point of generation to their

ultimate fate in the environment. This includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities.

The 1984 RCRA amendments provided the framework for a regulatory program designed to prevent releases from USTs. The program established tank and leak detection standards, including spill and overflow protection devices for new tanks. The tanks must also meet performance standards to ensure that the stored material will not corrode the tanks. The RCRA was further amended in 1988 to set additional standards for USTs.

In July 2015, the EPA revised the federal UST regulation, which strengthened the 1988 federal UST regulations by increasing emphasis on properly operating and maintain UST equipment. The revision added new operation and maintenance requirements and addressed UST systems deferred in the 1988 UST regulation. The purpose of the revision was to help prevent and detect UST releases, which are a leading source of groundwater contamination. To ensure compliance performance measures reflect the 2015 UST regulation, the Environmental Protection Agency (EPA) and the Association of State and Territorial Solid Waste Management Officials coordinated to update existing compliance performance measures and add new measures. The measures required states to switch from tracking compliance against significant operational compliance measures to the more stringent technical compliance rate (TCR) measures. As of June 2020, only 45.6 percent of USTs were in compliance with all TCR categories².

Comprehensive Environmental Response, Compensation, and Liability Act

CERCLA introduced active federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. CERCLA was intended to be comprehensive in encompassing both the prevention of, and response to, uncontrolled hazardous substances releases. CERCLA deals with environmental response, providing mechanisms for reacting to emergencies and to chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for and respond to failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

STATE

The primary state agencies that are responsible for overseeing regulations and policies regarding hazardous materials are the California Office of Emergency Services (OES), Cal-EPA, DTSC, California Department of Transportation (Caltrans), California Highway Patrol (CHP), State Water Quality Control Board, and the California Air Resources Board. Several laws governing the generation, transport, and disposal of hazardous materials are administered by these agencies. State laws and regulations that are applicable to hazards and hazardous materials are presented below.

² EPA. *Semiannual Report of UST Performance Measures Mid Fiscal Year 2020*. June 2020. Access: <https://www.epa.gov/sites/production/files/2020-06/documents/ca-20-12.pdf>

California Health and Safety Code

Cal-EPA has established rules governing the use of hazardous materials and the management of hazardous wastes. Many of these regulations are embodied in the California Health and Safety Code. The code includes regulations that govern safe drinking water, substances control, land reuse and revitalization, remediation, restoration, and methamphetamine contaminated cleanups.

California Code of Regulations Title 22 and Title 26

The California Code of Regulations (CCR) Title 22 provides state regulations for hazardous materials, and CCR Title 26 provides regulation of hazardous materials management. In 1996, Cal-EPA established the “Unified Hazardous Waste and Hazardous Materials Management Regulatory Program” (Unified Program) which consolidated the six administrative components of hazardous waste and materials into one program.

LOCAL

Certified Unified Program Agency (CUPA)

The California Environmental Protection Agency designates specific local agencies as Certified Unified Program Agencies (CUPA), typically at the county level. The San Joaquin County Department of Environmental Health is the CUPA designated for San Joaquin County. The San Joaquin County Department of Environmental Health is responsible for the implementation of statewide programs within its jurisdiction, including: Underground storage of hazardous substances (USTs), Hazardous Materials Business Plan (HMP) requirements, California Accidental Release Prevention (Cal-ARP) program, etc. Implementation of these programs involves permitting, inspecting, providing education/guidance, investigations, and enforcement.

San Joaquin County Office of Emergency Services

The San Joaquin County Office of Emergency Services administers the State’s Hazardous Material Release Response Plan and Inventories and the Accidental Release Prevention (Cal-ARP) programs. Additionally, the Office of Emergency Services has a Hazardous Material Area Plan designed to protect human health and the environment through hazardous materials emergency planning, response and agency coordination and community right-to-know programs. The Hazardous Material Area Plan, among other provisions, provides guidance for businesses required to file a hazardous materials business plan. Under Chapter 6.95 of the California Health and Safety Code and the Federal Resource Conservation and Recovery Act, any business storing quantities of hazardous materials greater than 55 gallons of liquid, 500 pounds of solid or 200 cubic feet of some compressed gases must file a hazardous materials business plan annually that establishes incident prevention measures, hazardous material handling protocols and emergency response and evacuation procedures. The City of Stockton Police Department and the Stockton Fire Department work with San Joaquin County to implement the Hazardous Material Area Plan.

The Office of Emergency Services also administers the Emergency Planning and Community Right-to-Know program for Tracy. The Office of Emergency Services has also prepared the Multi-Hazard Plan as the basic emergency plan for San Joaquin County.

Envision Stockton 2040 General Plan

The Envision Stockton 2040 General Plan includes several policies and actions that are relevant to hazards and hazardous materials. General Plan policies and actions applicable to the Project are identified below:

POLICIES: SAFETY ELEMENT

- SAF-2.1. Ensure that community members are adequately prepared for natural disasters and emergencies through education and training.
- SAF-2.2. Prepare sufficiently for major events to enable quick and effective response.
- SAF-2.5. Protect the community from health hazards and annoyance associated with excessive noise levels.
- SAF-2.6. Minimize the risk to city residents and property associated with the transport, distribution, use, and storage of hazardous materials.

ACTIONS: SAFETY ELEMENT

- SAF-2.2A. Require new development to provide adequate access for emergency vehicles and evacuation routes, including by designing roadway systems to provide multiple escape routes in the event of a levee failure. SAF-2.6A. Restrict transport of hazardous materials within the city to routes that have been designated for such transport.
- SAF-2.2B. Formulate, review, periodically update, and make available to the public emergency management plans for that safe evacuation of people from areas subject to inundation from levee and dam failure.
- SAF-2.2D. Continue to work with San Joaquin County, the County Office of Emergency Services, other cities in the region, and disaster agencies to coordinate disaster and emergency preparedness planning.
- SAF-2.6A. Restrict transport of hazardous materials within the city to routes that have been designated for such transport.
- SAF-2.6B. When appropriate, require new development to prepare a hazardous materials inventory and/or Phase I or Phase II hazardous materials studies, including any required clean-up measures.
- SAF-2.6C. Educate the public regarding the types of household hazardous wastes and the proper methods of disposal.

City of Stockton Municipal Code

Chapter 2.82 of the Stockton Municipal Code, Emergency Organization and Functions, describes the preparation and the preparation and implementation of plans for the protection of persons and property within Stockton in the event of an emergency; the direction of the emergency organization; and the coordination of the emergency functions of the City with all other public agencies, corporations, organizations, and affected private persons. Stockton Municipal Code Section 2.82.060, Director and Deputy Director of Emergency Services, establishes that one of the duties of the Director of Emergency Services is to request that the City proclaim the existence of a threat or

local emergency. Once a local emergency is proclaimed, the Director has seven days to take action. In addition, the Director has the authority to request the Governor to proclaim a “state of emergency” when local resources are inadequate to cope with the emergency. The Director is charged with controlling and directing the efforts of the emergency organization of the City and directing cooperation between the coordination of services and staff.

Section 16.36.080 of the Stockton Municipal Code, Hazardous Materials, sets forth the standards for regulating the use, handling, storage, and transportation of hazardous materials. Per Section 16.36.080(A), a use permit is required for any new commercial, industrial, institutional, or accessory use, or major addition (over 10 percent) to an existing use within 1,000 feet of a residential zoning district that involves the manufacture, storage, handling, or processing of hazardous materials in sufficient quantities that would require permits as hazardous materials. In addition, this section of the Stockton Municipal Code provides standards for reporting, notification, new development, and both underground and above-ground storage of hazardous materials.

City of Stockton Emergency Operations Plan

The City adopted its most recent version of its Emergency Operations Plan (EOP) in June 2012. The EOP addresses the City’s planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies. The EOP establishes the emergency management organization required to mitigate any significant emergencies and identifies roles and responsibilities required to protect the health and safety of Stockton residents and property. In addition, the EOP establishes operations concepts associated with a field response to emergencies.

Stockton Metropolitan Airport Land Use Compatibility Plan

The Airport Land Use Compatibility Plan (ALUCP) for the Stockton Metropolitan Airport was last updated in May 2016. The ALUCP provides guidance related to the placement of land uses near the Stockton Metropolitan Airport. Specifically, the ALUCP seeks to protect the public from adverse effects of aircraft noise, ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and ensure that no structures or activities adversely affect navigable airspace.

3.8.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact from hazards and hazardous materials if it will:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

IMPACTS AND MITIGATION MEASURES

Impact 3.8-1: Potential to create a significant hazard through the routine transport, use, or disposal of hazardous materials or through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (Less than Significant with Mitigation)

CONSTRUCTION PHASE IMPACTS

Construction of the proposed project would likely require the use of petroleum-based products (oil, gasoline, diesel fuel), and a variety of chemicals including paints, cleaners, and solvents. The use of these materials will pose a reasonable risk of release into the environment if not properly handled, stored, and transported.

Construction workers and the general public could be exposed to hazards and hazardous materials as a result of improper handling or use during construction activities (particularly by untrained personnel); transportation accidents; or fires, or other emergencies. Construction workers could also be exposed to hazards associated with accidental releases of hazardous materials, which could result in significant impacts to the health and welfare of people and/or wildlife. Additionally, an accidental release into the environment could result in the contamination of water, habitat, and countless resources. Mitigation Measure 3.9-1 contained in Section 3.9, Hydrology and Water Quality, ensures compliance with existing regulatory requirements of the Regional Water Quality Control Board, which require the preparation a project specific Stormwater Pollution Prevention Plan (SWPPP). The SWPPP is required to include project specific best management measures that are designed to control erosion and the loss of topsoil to the extent practicable using best management practices (BMPs) that the RWQCB has deemed effective in controlling erosion, sedimentation, and runoff during construction activities.

The proposed project would also be required to comply with regulations on the transportation of hazardous materials codified in 49 CFR 173 and 49 CFR 177 and CCR Title 26, Division 6. These regulations, which are under the jurisdiction of Caltrans and the CHP, provide specific packaging requirements, define unacceptable hazardous materials shipments, and prescribe safe-transit

practices by carriers of hazardous materials. Compliance with these regulations would reduce the risk of exposure to humans and the environment related to the transportation of hazardous materials.

Hazardous materials regulations, which are codified in CCR Titles 8 and 22, and their enabling legislation set forth in Chapter 6.5 (Section 25100 et seq.) of the California Health and Safety Code, were established at the State level to ensure compliance with federal regulations to reduce the risk to human health and the environment from the routine use of hazardous substances. Construction specifications would include the following requirements in compliance with applicable regulations and codes, including, but not limited to CCR Titles 8 and 22, Uniform Fire Code, and Division 20 of the California Health and Safety Code: all reserve fuel supplies and hazardous materials must be stored within the confines of a designated construction area; equipment refueling and maintenance must take place only within the staging area; and construction vehicles shall be inspected daily for leaks. Off-site activities (e.g., utility construction) would also be required to comply with these regulations. These regulations and codes must be implemented, as appropriate, and are monitored by the State and/or local jurisdictions, including the San Joaquin County Department of Environmental Health and the City of Stockton Fire Department.

Contractors would be required to comply with Cal-EPA's Unified Program; regulated activities would be managed by San Joaquin County Department of Environmental Health, the designated Certified Unified Program Agency for San Joaquin County, in accordance with the regulations included in the Unified Program (e.g., hazardous materials release response plans and inventories, California UFC hazardous material management plans and inventories). Additionally, in the event that hazardous materials are discovered during construction, a Soils Management Plan (SMP) will need to be submitted and approved by the San Joaquin County Department of Environmental Health, as required by Mitigation Measure 3.8-1. The SMP will establish management practices for handling hazardous materials, including fuels, paints, cleaners, solvents, etc., during construction. Such compliance would reduce the potential for accidental release of hazardous materials during construction of the proposed project. As a result, it would lessen the risk of exposure of construction workers and the public to accidental release of hazardous materials, as well as the demand for incident emergency response.

The Project includes a Tentative Map to subdivide the 422.22-acre site into 13 development lots, two basin lots, two open space lots, one sewer pump station lot, and off-site sewer improvements. As described in Chapter 2.0, Project Description, a Site Plan is not currently proposed for any of the proposed lots. Future development of these lots would involve the conversion of active agricultural land into industrial, commercial, public facility, and/or open space uses. Site grading, excavation for utilities, trenching, backfilling, and the construction of proposed facilities that could result in the exposure of construction workers and the general public to hazardous materials, such as pesticides and herbicides. Like most agricultural and farming operations in the Central Valley, agricultural practices in the area have used agricultural chemicals including pesticides and herbicides as a standard practice. Although no contaminated soils have been identified on the Project site or the vicinity above applicable levels, residual concentrations of pesticides may be present in soil as a result of historic agricultural application and storage. Continuous spraying of crops over many years

can potentially result in a residual buildup of pesticides, in farm soils. Of highest concern relative to agrichemicals are chlorinated herbicides, organophosphate pesticides, and organochlorine pesticides (OCPs), such as such as Mecoprop (MCP), Dinoseb, chlordane, dichloro-diphenyltrichloroethane (DDT), and dichloro-diphenyl-dichloroethylene (DDE).

Mitigation Measure 3.8-2 provides a requirement for future developments within the subdivided lots to conduct site-specific soil sampling to determine if chemicals of potential concern associated with the historical agricultural uses at the Project site are present in shallow soil at concentrations that would pose a threat to human health. This sampling should be performed after agricultural operations cease, and development is anticipated to occur. If results of the soil sampling identify concentrations of hazardous materials exceeding appropriate ESLs, on-site remediation would be required in coordination with the San Joaquin County Department of Environmental Health. Implementation of Mitigation Measure 3.8-2 would ensure the redevelopment of the active agricultural land would not result in accidental release of or exposure to hazardous materials.

OPERATIONAL PHASE IMPACTS

The operational phase would occur after construction is completed and business operations commence on a day-to-day basis. As previously noted, the Project proposes a Tentative Map to subdivide the 422.22-acre site to create 13 development lots, two basin lots, two open space lots, one sewer pump station lot, and off-site sewer improvements. As described in Chapter 2.0, Project Description, the Project would result in a maximum of 6,091,551 square feet of industrial type land uses, 140,350 square feet of commercial land uses, 54 acres of open space, 41 acres of public facilities, and 19 acres of right-of-way circulation improvements.

According to the Envision 2040 Stockton General Plan, the industrial land use allows for a wide variety of industrial uses, including uses with nuisance or hazardous characteristics, warehousing, construction contractors, light manufacturing, offices, Retail Sales, service businesses, public and quasi-public uses, and other similar and compatible uses. Additionally, the commercial land use allows for a wide variety of retail, service, and commercial recreational uses; business, medical, and professional offices; residential uses; public and quasi-public uses; and other similar and compatible uses.

Depending on the future industrial uses on-site, the Project has the potential to routinely transport, use, or dispose of hazardous materials, and/or present a reasonably foreseeable release of hazardous materials. Any operations that involve the use of hazardous materials would be required to have the hazardous material transported, stored, used, and disposed of in compliance with local, state, and federal regulations. The San Joaquin County Department of Environmental Health is the CUPA for San Joaquin County and is responsible for the implementation of statewide programs within the City including Hazardous Materials Business Plan (HMBP) requirements, among numerous other programs. Additionally, businesses are regulated by Cal/OSHA and are therefore required to ensure employee safety. Specific requirements include identifying hazardous materials in the workplace, providing safety information to workers that handle hazardous materials, and adequately training workers. To further ensure the safety of employees and reduce the potential for accidental release of hazardous materials into the environment, the applicant must submit a HMBP

3.8 HAZARDS AND HAZARDOUS MATERIALS

to San Joaquin County Department of Environmental Health (CUPA) for review and approval prior to bringing hazardous materials onsite, as required by Mitigation Measure 3.8-3.

As with construction, operation of the proposed Project is required to be consistent with federal, State, and local laws and regulations addressing hazardous materials management and environmental protection, including, but not limited to 49 CFR 173 and 177, and CCR Title 26, Division 6 for transportation of hazardous materials, and CCR Titles 8 and 22, Uniform Fire Code, and Division 20 of the California Health and Safety Code for routine use of hazardous materials. These regulations and codes must be implemented, as appropriate, and are monitored by the State and/or local jurisdictions, including Caltrans, the CHP, the San Joaquin County Department of Environmental Health.

CONCLUSION

Overall, consistency with federal, State, and local laws and regulations related to the handling of hazardous materials discussed above and implementation of Mitigation Measures 3.8-1 through 3.8-3 and Mitigation Measure 3.9-1 contained in Section 3.9, Hazards and Hazardous Materials, would reduce potential impacts that could occur due to the routine transport, use, or disposal of hazardous materials or through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment associated with construction activities within the Project site to a ***less than significant*** level.

MITIGATION MEASURE(S)

Mitigation Measure 3.8-1: *In the event that hazardous materials are encountered during construction, a Soils Management Plan (SMP) shall be submitted and approved by the San Joaquin County Department of Environmental Health. The SMP shall establish management practices for handling hazardous materials, including fuels, paints, cleaners, solvents, etc., during construction. The approved SMP shall be posted and maintained onsite during construction activities and all construction personnel shall acknowledge that they have reviewed and understand the plan.*

Mitigation Measure 3.8-2: *Prior to the issuance of grading permits for any of the parcels (i.e., Parcels 1-13, Basins A and C, Open Space B, Sewer Pump Station D, and Open Space E) identified on the Project's Tentative Subdivision Map (see Figure 2.0-7 of this EIR), the applicant or future project proponent shall hire a qualified consultant to perform site-specific soil sampling to determine if chemicals of potential concern associated with the historical agricultural uses at the Project site are present in shallow soil at concentrations that would pose a threat to human health. If results of the soil sampling identify concentrations of hazardous materials exceeding appropriate ESLs for the future site-specific use, on-site remediation would be required in coordination with the San Joaquin County Department of Environmental Health.*

Mitigation Measure 3.8-3: *Prior to bringing hazardous materials onsite, the applicant shall submit a Hazardous Materials Business Plan (HMBP) to San Joaquin County Environmental Health Division (CUPA) for review and approval. If during the construction process the applicant or his subcontractors generates hazardous waste, the applicant must register with the CUPA as a generator of hazardous*

waste, obtain an EPA ID# and accumulate, ship and dispose of the hazardous waste per Health and Safety Code Ch. 6.5. (California Hazardous Waste Control Law).

Mitigation Measure 3.8-4: *New business on the project site that may handle quantities of hazardous materials equal to or greater than 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of a compressed gas at any given time shall submit a Hazardous Materials Business Plan to the Certified Unified Program Agency (CUPA) of San Joaquin County. The Hazardous Materials Business Plan shall include an inventory of hazardous materials and hazardous wastes and an emergency response plan for incidents involving hazardous materials and wastes*

Mitigation Measure 3.8-5: *Proposed business uses that involve the manufacture, storage, handling, or processing of hazardous materials in sufficient quantities that would require s Hazardous Materials Business Plan and the use is within 1,000 feet of a residential zoning district, the project shall comply with Stockton Municipal Code Section 16.36.080, which governs use, handling, storage, and transportation of hazardous materials.*

Implement Mitigation Measure 3.9-1.

Impact 3.8-2: Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (No Impact)

Given the unknown nature of future business establishments on the industrial and commercial lots, the Project has the potential for the routine transport, use, or disposal of hazardous materials, as provided under Impact 3.8-1. However, the Project site is not located within one-quarter-mile of a school. The nearest school to the Project site is the French Camp Elementary School located at 241 4th Street, French Camp, CA, which is approximately 1.1 miles northwest of the Project site. Therefore, **no impact** would occur related to emitting hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Impact 3.8-3: Potential to result in impacts from being included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (No Impact)

The hazards assessment included a site reconnaissance, interviews, historical land use research, and database research. The assessment revealed no evidence of historical or existing Recognized Environmental Conditions in connection with the Project site. The Project site is not on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Implementation of the proposed Project would have a **no impact** with regards to this environmental issue.

Impact 3.8-4: Potential for the Project to result in a safety hazards for people residing or working on the Project site as a result of public airport or public use airport (Less than Significant with Mitigation)

As previously stated, the Project site is adjacent to the Stockton Metropolitan Airport and located within the airport influence area (AIA) identified in the Stockton Metropolitan Airport's Airport Land Use Compatibility Plan (ALUCP).

According to the Stockton Metropolitan Airport ALUCP, the northeastern corners of the Project site are within CNEL 60 noise exposure contours and the eastern portion of the Project site is within the SEL Contour. The locations of CNEL and SEL contours are among the factors used to determine land use compatibility. According to Section 3.3.2.3, Noise Exposure for Other Land Uses, of the ALUCP, the proposed industrial and commercial land uses on-site are compatible with the Project site's CNEL and SEL noise contours.

Additionally, the Project site is within Traffic Pattern Zone 7a of the Airport's Safety Zones, as identified in the Airport's ALUCP. Lands within Traffic Pattern Zone 7a cannot be developed with non-residential intensities greater than 450 persons per acre and must have open land over 10 percent of the site. Additionally, uses within Traffic Pattern Zone 7a cannot be hazardous to flight, include waterways that create a bird hazard, and outdoor stadiums are prohibited. Airspace review is required for development greater than 100 feet tall on lands within Zone 7a. Similarly, new dumps or landfills within Zone 7a are subject to the FAA notification and review and are further subject to restrictions and conditions outlined by the FAA.

According to the Stockton Metropolitan Airport's ALUCP, the industrial and commercial land uses are consistent with the Traffic Pattern Zone 7a of the Airport's Safety Zones. Additionally, new developments are required to comply with Chapter 16.28 of the Stockton Municipal Code, Overlay Zoning District Land Use and Development Standards, which requires that uses be consistent with the Stockton Municipal Airport ALUCP and that heights be limited in various zones to ensure safety. Further, the General Plan includes Action TR-1.3a, which directs the City to ensure that all future development is consistent with the ALUCP, except in cases where the City Council concludes that project would protect public health, safety, and welfare by minimizing the public's exposure to excessive noise and safety hazards.

Although detailed building plans and elevations are not available, the proposed Project would likely result in development less than 100 feet tall. Additionally, employment would not exceed 450 persons per acre; the 422-acre site would be restricted to 189,900 employees by the ALUC, which is substantially greater than what would result from the Project. Further, open land would be provided over 10 percent of the site. The proposed Project plans would be reviewed the SJCOG for consistency with the ALUCP for the Environs of Stockton Metropolitan Airport.

Given that the Project's proposed land uses are compatible with the safety requirements of the ALUCP, and that the Project and future development would be subject to existing Stockton Municipal Code Chapter 16.28 requirements as well as proposed General Plan requirements about development within the AIA, the impact would be ***less than significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.8-6: *Prior to final approval of building plans, the project shall be submitted to the San Joaquin Council of Governments (SJCOCG), acting in its capacity as the Airport Land Use Commission, for review of the compatibility of the project with Stockton Metropolitan Airport operations and conformance to the guidelines stipulated in the Airport Land Use Compatibility Plan for Stockton Metropolitan Airport.*

Impact 3.8-5: Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (Less than Significant)

(Note: The following discussion is associated with potential impacts of the Project on emergency response plans and/or evacuation plans. Proposed emergency vehicle access to and from the site is addressed in Section 3.12, Transportation and Circulation.)

The Stockton Emergency Operations Plan (EOP), adopted in June 2012, addresses the City's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies. The EOP establishes the emergency management organization required to mitigate any significant emergencies and identifies roles and responsibilities required to protect the health and safety of Stockton residents and property. Additionally, The San Joaquin County Office of Emergency Services (OES) also maintains an Emergency Operations Plan (EOP) that serves as the official Emergency Plan for San Joaquin County. It includes planned operational functions and overall responsibilities of County Departments during an emergency situation. The Emergency Plan also contains a threat summary for San Joaquin County, which addresses the potential for natural, technological and human-caused disasters (County Code, Title 4-3007).

The County OES also prepared a Hazardous Materials Area Plan (§2720 H&S, 2008) that describes the hazardous materials response system developed to protect public health, prevent environmental damage and ensure proper use and disposal of hazardous materials. The plan establishes effective response capabilities to contain and control releases, establishes oversight of long-term cleanup and mitigation of residual releases, and integrates multi-jurisdiction and agency coordination. This plan is now implemented by the San Joaquin County Environmental Health Department.

The San Joaquin County Environmental Health Department maintains a Hazardous Materials Management Plan/ Hazardous Materials Business Plan (HMMP/HMBP). The HMMP/HMBP describes agency roles, strategies and processes for responding to emergencies involving hazardous materials. The Environmental Health Department maintains a Hazardous Materials Database and Risk and Flood Maps available to the public on its website.

In San Joaquin County, all major roads are available for evacuation, depending on the location and type of emergency that arises. The Project would not interfere with any emergency response plan or emergency evaluation plan, as the Project does not include any actions that would impair or

3.8 HAZARDS AND HAZARDOUS MATERIALS

physically interfere with the San Joaquin County EOP, San Joaquin County Hazardous Materials Area Plan, and the Stockton EOP. As previously stated, the proposed Project includes a Tentative Map to subdivide the 422.2-acre site into 13 development lots, two basin lots, two open space lots, one sewer pump station lot, and off-site sewer improvements. No site plans are being proposed for the development of any of the lots; however, the Tentative Map does propose a new west-east trending primary road referred to as Commerce Drive, which would provide access to Airport Way to the west and the 99 Frontage Road to the east resulting in increased connectivity of the area.

Future uses on the Project site will have access to the County resources that establish protocols for safe use, handling and transport of hazardous materials. Construction activities are not expected to result in any unknown significant road closures, traffic detours, or congestion that could hinder the emergency vehicle access or evacuation in the event of an emergency. Furthermore, the specific design and layout of the future development projects under the Tentative Map would be reviewed by the City's law enforcement and fire personnel to ensure that adequate emergency ingress and egress is provided throughout the site that would not interfere or impair evacuation plans. Therefore, impacts related to the potential for the project to impair implementation of emergency response plans would be *less than significant* impact.

This section describes the regulatory setting, existing hydrology and water quality conditions, and potential impacts on existing drainage patterns, surface hydrology, and water quality conditions that are likely to result from Project implementation, and measures to reduce potential impacts. This section is based in part on the following documents, reports and studies:

- *Envision Stockton 2040 General Plan* (City of Stockton, December 2018);
- *Envision Stockton 2040 General Plan Update Draft Environmental Impact Report* (City of Stockton, June 2018);
- *California Water Plan Update 2013* (DWR, 2013);
- *The Delta Plan* (Delta Stewardship Council, as amended July 2019);
- *National Pollutant Discharge Elimination System Municipal Stormwater Program: Stormwater Management Plan* (City of Stockton, April 2009);
- *California's Groundwater Bulletin 118, San Joaquin Valley Groundwater Basin, Eastern San Joaquin Subbasin* (DWR, 2006);
- *California's Groundwater* (DWR, 2003);
- *Eastern San Joaquin Groundwater Basin Groundwater Management Plan* (San Joaquin County Department of Public Works, September 2004);
- *Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan* (Eastern San Joaquin Groundwater Authority, November 2019);
- *Eastern San Joaquin Integrated Regional Water Management Plan Update* (Eastern San Joaquin County Groundwater Basin Authority, June 2014);
- *Lower San Joaquin River and Delta South Regional Flood Management Plan* (San Joaquin Area Flood Control Agency, November 2014);
- *Spring 2018 Groundwater Report* (San Joaquin County Flood Control and Water Conservation District, 2018);
- *2015 Urban Water Management Plan* (City of Stockton, May 2016);
- *The South Stockton Commerce Center Hydrologic and Hydraulic Assessment* (Kjeldsen, Sinnock, & Neudeck [KSN], December 2020); and
- *South Stockton Commerce Center Water Supply Assessment* (City of Stockton Municipal Utilities Department, October 2020).

Comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the following: California Department of Justice (November 24, 2020), Central Valley Regional Water Quality Control Board (October 20, 2020), and Sierra Club (October 27, 2020). Each of the comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

3.9.1 ENVIRONMENTAL SETTING

REGIONAL HYDROLOGY

San Joaquin County is located in the San Joaquin River watershed. The San Joaquin River is about 300 miles long. It begins in the Sierra Nevada mountain range on California's eastern border. The river runs down the western slope of the Sierra and flows roughly northwest through the Central

Valley, to where it meets the Sacramento River at the Sacramento-San Joaquin Delta. Once a great marsh, the Sacramento-San Joaquin Delta is now a network of channels and sunken “islands” that cover—together with Suisun Marsh—about 1,300 square miles. Laid over those islands and channels is infrastructure: water supply conduits; major arteries of the state’s electrical grid; natural gas fields, storage facilities, and pipelines; highways and railways; and shipping channels, all surrounded by an increasingly urban landscape. This maze of channels and islands drains more than 40 percent of the state’s lands and carries about half of the state’s total annual runoff (Delta Stewardship Council, as amended July 2019).

Because the Central Valley receives relatively little rainfall (12 to 17 inches a year, falling mostly October through March), snowmelt runoff from the mountains is the main source of fresh water in the San Joaquin River. Over its 300-mile length, the San Joaquin River is fed by many other streams and rivers, most notably the Stanislaus, Tuolumne and Merced rivers.

Most of the surface water in the upper San Joaquin River is stored and diverted at Millerton Lakes’ Friant Dam, near Fresno. From Friant Dam, water is pumped north through the Madera Canal and south through the Friant-Kern canal to irrigation districts and other water retailers, which then deliver the water directly to the end users in the southern portion of the watershed.

In the central and northern portions of the watershed, many agricultural and municipal users receive water from irrigation districts, such as the Modesto, Merced, Oakdale, South San Joaquin and Turlock Irrigation Districts. That water is provided through diversions from rivers that are tributary to the San Joaquin, such as the Mokelumne, Stanislaus, Tuolumne and Merced rivers.

In an average year, about 1.5 million acre-feet of water is diverted from the San Joaquin River at Friant Dam, leaving little flow in the river until the Merced River joins the San Joaquin northwest of the City of Merced. Additional water also reaches the river via flows returning to the river from municipal wastewater treatment plants, as well as urban and agricultural runoff. The rest of the area’s water supply needs are met by importing water from northern California (via the Central Valley Project) and by pumping water from the groundwater basin (Delta Stewardship Council, as amended July 2019).

Climate

Summers in the region are warm and dry ranging from an average high in July of 93°F to an average low of approximately 59°F. Winters are cool and mild, with an average high of 53°F and a low of 37°F in January. The average annual precipitation is approximately 13.81 inches. Precipitation occurs as rain, most of which falls between the months of November through April, peaking in January at 2.85 inches. The average temperatures range from December lows of 37.5°F to July highs of 94.3°F.

Watersheds

A watershed is a region that is bound by a divide that drains to a common watercourse or body of water. Watersheds serve an important biological function, oftentimes supporting an abundance of aquatic and terrestrial wildlife including special-status species and anadromous and native local fisheries. Watersheds provide conditions necessary for riparian habitat.

The State of California uses a hierarchical naming and numbering convention to define watershed areas for management purposes. This means that boundaries are defined according to size and topography, with multiple sub-watersheds within larger watersheds. Table 3.9-1 shows the primary watershed classification levels used by the State of California. The second column indicates the approximate size that a watershed area may be within a particular classification level, although variation in size is common.

TABLE 3.9-1. STATE OF CALIFORNIA WATERSHED HIERARCHY NAMING CONVENTION

<i>WATERSHED LEVEL</i>	<i>APPROXIMATE SQUARE MILES (ACRES)</i>	<i>DESCRIPTION</i>
Hydrologic Region (HR)	12,735 (8,150,000)	Defined by large-scale topographic and geologic considerations. The State of California is divided into ten HRs.
Hydrologic Unit (HU)	672 (430,000)	Defined by surface drainage; may include a major river watershed, groundwater basin, or closed drainage, among others.
Hydrologic Area (HA)	244 (156,000)	Major subdivisions of hydrologic units, such as by major tributaries, groundwater attributes, or stream components.
Hydrologic Sub-Area (HSA)	195 (125,000)	A major segment of an HA with significant geographical characteristics or hydrological homogeneity.

SOURCE: CALIFORNIA DEPARTMENT OF WATER RESOURCES, 2012.

Hydrologic Region

San Joaquin County is located in the San Joaquin River Hydrological Region. The San Joaquin River is the principal river of the region, and all other streams of the region are tributary to it. The Mokelumne River and its tributary the Cosumnes River originate in the central Sierra Nevada, along with the more southerly Stanislaus and Tuolumne rivers. The Merced River flows from the south central Sierra Nevada and enters the San Joaquin near the City of Newman. The Chowchilla and Fresno rivers also originate in the Sierra south of the Merced River and trend westward toward the San Joaquin River. Creeks originating in the Coast Range and draining eastward into the San Joaquin River include Del Puerto Creek, Orestimba Creek, and Panoche Creek. Del Puerto Creek enters the San Joaquin near the City of Patterson, and Orestimba Creek enters north of the City of Newman. During flood years, Panoche Creek may enter the San Joaquin River or the Fresno Slough near the town of Mendota. The Kings River is a stream of the Tulare Lake Hydrologic Region, but in flood years it may contribute to the San Joaquin River, flowing northward through the James Bypass and Fresno Slough to enter near the City of Mendota. The Mud, Salt, Berrenda, and Ash sloughs also add to the San Joaquin River, and numerous lesser streams and creeks also enter the system, originating in both the Sierra Nevada and the Coast Range. The entire San Joaquin river system drains northwesterly through the Delta to Suisun Bay (DWR 2013, pg. SJR-5).

Groundwater

The San Joaquin Valley Groundwater Basin lies within the San Joaquin River and Tulare Lake Hydrologic Regions. The San Joaquin River Hydrologic Region portion of the basin covers approximately 3.73 million acres while the Tulare Lake Hydrologic Region portion of the basin cover

approximately 5.15 million acres. Groundwater is extensively used in the San Joaquin Valley Groundwater Basin by agricultural and urban entities and accounts for approximately 48% of the groundwater used in the State (DWR 2003).

The northern portion of the basin is within the San Joaquin River Hydrologic Region and consists of nine subbasins. These subbasins are the Cosumnes, Eastern San Joaquin, Tracy, Modesto, Turlock, Merced, Delta-Mendota, Chowchilla, and Madera (DWR, 2003). The majority of the City of Stockton, including the Project site, is located in the Eastern San Joaquin Groundwater Subbasin; however, a small portion of the west end of the Stockton Planning Area is located above the Tracy Subbasin.

LOCAL SETTING

The proposed Project site is comprised of 422.2 acres located in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport. The Project site is relatively flat with natural gentle slope from southwest to northeast. The Project site topography ranges in elevation from approximately 14 to 40 feet above sea level. The Project site is comprised of active agricultural fields. The majority of the fields produce watermelons, with a walnut orchard located in the eastern portion of the site. The off-site sewer improvements would be located along the western site frontage on Airport Way, head north along Airport Way, and terminate in Airport Way and Industrial Drive to the north.

The French Camp Slough extends southeast from Airport Way across the southwestern portion of the site. The slough continues east under the UPRR and then south across the southwestern portion of the site. Before continuing south off-site, an irrigation canal/ditch breaks off of the French Camp Slough, which runs from west to east providing water to the on-site crops. Additionally, an irrigation ditch/canal runs along the northern boundary of the Project site.

Drainage

The major drainage pattern in the Stockton region is westerly from the Sierra Nevada, and then northerly through the San Joaquin Valley to the San Joaquin Delta.

The western half of Stockton is in the Sacramento-San Joaquin Delta (Delta) as defined by DWR. As previously stated, the Sacramento-San Joaquin Delta is formed by the confluence of the state's two largest rivers, the Sacramento and San Joaquin Rivers, before they flow to San Francisco Bay. The Sacramento flows south from its headwaters near Mt. Shasta while the San Joaquin River originates in the southern Sierra Nevada. The Mokelumne and Cosumnes Rivers, located between Stockton and Sacramento, are also included in the Delta's watershed. The Delta provides drinking water for two-thirds of Californians and irrigation water for over 7 million acres of farmland (Delta Stewardship Council, as amended July 2019).

As stated, the Delta watershed drains nearly 50 percent of the state's runoff and serves as one of the state's most valuable fresh water resources (Delta Stewardship Council, as amended July 2019). The Delta is highly engineered with numerous leveed islands and tracts, many of which are located west of the City of Stockton. Due to the nature of the Delta as the confluence for a number of waterways, as well as tidal influence within the Delta, flooding is a concern for development in the

vicinity of the Delta. Meeting water quality standards within Delta waterways is a major concern in management of the Delta, as it supplies municipal water to a majority of California's population. The Project site does not fall within the Primary or Secondary Zones of the Delta, although the waterways that flow from the Project Area eventually discharge to the Delta (City of Stockton, April 2009).

The San Joaquin River is heavily managed, and is the primary receiving water body for several rivers and streams that flow from the east out of the Sierra Nevada and northward towards the Delta. Its headwater tributaries, the south and middle forks, rise from glacial lakes in the southern Sierra Nevada and flow west toward the Central Valley and then north into the Delta. Regional tributaries that flow from the east and join the main stem include Pixley Slough, Bear Creek, Five Mile Slough, Calaveras River, Mormon Slough, Walker Slough, and French Camp Slough (City of Stockton, 2018).

Figure 3.9-1 identifies the watersheds located within the Project site boundaries. The majority of the Project site is located in the French Camp Slough watershed. Additionally, a small portion along the southern boundary of APN 201-020-010, in the eastern area of the Project site, is located in the Littlejohns Creek watershed. French Camp Slough, which receives flows from North Littlejohns Creek and Weber Slough, flows into the San Joaquin River west of the Project site.

STORMWATER DRAINAGE

Urban stormwater drainage in the City of Stockton is provided by a storm drain system that is separate from the municipal sewer system. The City of Stockton Municipal Utility Department operates and maintains approximately 620 miles of pipe, 72 pump stations, and more than 100 discharge pipes. The local storm drain facilities collect and route runoff from the streets and gutters through surface canals and stormwater retention basins, as well as through a network of underground gravity and force mains (pipelines), pump stations, and outfalls into rivers, creeks, and the Delta, including outfalls to the San Joaquin River, Bear Creek, Pixley Slough, Mosher Slough, Five Mile Slough, Fourteen Mile Slough, Calaveras River and Stockton Diverting Canal, Smith Canal, French Camp Slough, Walker Slough, Weber Slough, North Littlejohns Creek, and Duck Creek (City of Stockton, June 2018).

Groundwater

As previously stated, the Project site is located above the Eastern San Joaquin Groundwater Subbasin. The Eastern San Joaquin Groundwater Subbasin covers approximately 1,105 square miles and extends from the Mokelumne River on the north and northwest; San Joaquin River on the west; Stanislaus River on the south; and consolidated bedrock on the east. The Eastern San Joaquin Groundwater Subbasin is bounded on the south, southwest, and west by the Modesto, Delta-Mendota, and Tracy Subbasins, respectively and on the northwest and north by the Solano, South American, and Cosumnes Subbasins. (DWR 2006, pg. 1).

The Eastern San Joaquin Groundwater Subbasin is not adjudicated; however, a groundwater management plan and groundwater sustainability plan have been prepared for the subbasin. In 2005, Stockton adopted the Eastern San Joaquin Groundwater Basin Groundwater Management Plan (San Joaquin County Department of Public Works, 2004) prepared by the Northeastern San Joaquin County Groundwater Banking Authority, replacing the 1995 Groundwater Management

Plan. Given the subbasins critical state of overdraft, the Eastern San Joaquin Groundwater Authority (ESJGWA) was formed in 2017 and the Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan was adopted in November 2019.

According to the Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan, the origin of geologic formations within the Eastern San Joaquin Groundwater Subbasin varies in geologic time ranging from recent to Pre-Cretaceous bedrock or basement. The Victor formation is the uppermost formation and extends from the ground surface to a maximum depth of about 150 feet. Compared to the underlying formations, the Victor formation is generally more permeable and the groundwater is typically unconfined. The underlying Laguna formation includes discontinuous lenses of unconsolidated to semi-consolidated sands and silts interspersed with lesser amounts of clay and gravel. The Laguna formation is hydraulically connected to the Victor formation and is estimated to be 750 to 1,000 feet thick. Moderate permeability has been reported within the Laguna formation with some highly permeable coarse-grained beds. Most of the municipal and industrial wells in the region penetrate through the Victor formation into the Laguna formation.

According to the 2014 Eastern San Joaquin Integrated Regional Water Management Plan, the subbasin has been historically in a critical condition of overdraft with the historic hydrologic record estimating net groundwater overdraft to be approximately 150,000 to 160,000 acre-feet per year (af/yr). According to the Envision Stockton 2040 General Plan EIR, average groundwater use in the Eastern San Joaquin Groundwater Subbasin is about 809,321 acre-feet per year (afy), of which approximately 95 percent is for agricultural uses and 5 percent for municipal and industrial uses. Historically, groundwater elevations have declined about 40 to 60 feet, averaging approximately 1.7 feet per year.

The San Joaquin County Flood Control and Water Conservation District (District) monitors groundwater levels and groundwater quality throughout San Joaquin County to identify the condition of the Eastern San Joaquin Groundwater Subbasin. According to the Spring 2018 Groundwater Report, of the 135 wells able to be compared, 70 showed decreases in groundwater levels, 58 showed increases in groundwater levels, and 7 showed no change in groundwater elevations. The Eastern San Joaquin Groundwater Subbasin is recharged by water from sources including streams, percolation of rainfall and irrigation water, inflow from other groundwater basins, and intentional recharge at numerous facilities. Intentional recharge is conducted in recharge ponds and on some farm fields with compensation to landowners.

GROUNDWATER RESOURCES

The City currently has groundwater wells located in the City's North and South systems. Groundwater is used conjunctively with the City's other supply sources. Groundwater is managed for long-term sustainability and supply through conjunctive use with surface water supplies. According to the 2015 Urban Water Management Plan, the City has determined that the sustainable groundwater yield is 0.75 ac-ft/acre/yr, equivalent to a groundwater yield of approximately 50,000 ac-ft/yr. To establish the projected groundwater supply that is reasonably available, City of Stockton Municipal Utilities Department (COSMUD) assumes that the reasonably available groundwater for

the current water service area (38,524 acres) is pumped at 0.6 ac-ft/acre/yr, equivalent to an annual groundwater supply of 23,100 ac-ft/yr (City of Stockton, May 2016).

LOCAL GROUNDWATER QUALITY

The majority of the groundwater in the basin is characterized by calcium-magnesium bicarbonate or calcium-sodium bicarbonate types. Large areas of chloride type water occur along the western margin of the subbasin along the San Joaquin River. Based on analyses of 174 water supply wells in the subbasin, total dissolved solids (TDS) ranges from 30 to 1,632 mg/L and averages approximately 310 mg/L. Specific conductance of groundwater ranged from 78 to 5,390 $\mu\text{mhos/cm}$, with a mean value of 685 and a median of 356. Some of the highest specific conductance values were found along the western part of the subbasin and San Joaquin River alignment (DWR, 2003).

Saline intrusion threatens the groundwater quality in the Stockton area, especially in dry years when groundwater is used more heavily. As a result of declining water levels, a cone of depression has formed creating a gradient that allows saline water underlying the Delta region to migrate northeast within the southern portions of Stockton. Additionally, large areas of elevated nitrate in groundwater exist within the subbasin located southeast of Lodi, south of Stockton, and east of Manteca extending towards the San Joaquin-Stanislaus County line (DWR, 2003). According to the 2019 Drinking Water Quality Report prepared for the City, drinking water from groundwater meets all drinking water standards set by the state and federal government (City of Stockton, 2019).

Flooding

Flooding is the accumulation of water where none usually occurs or the overflow of excess water from a stream, river, lake, reservoir, or coastal body of water onto adjacent floodplains. Floods are natural events that are considered hazards only when people and property are affected. Flooding events can result in damage to structures, injury or loss of human and animal life, exposure of waterborne diseases, and damage to infrastructure. In addition, standing floodwater can destroy agricultural crops, undermine infrastructure and structural foundations, and contaminate groundwater.

As previously stated, the Project site lies within the larger area known as the Delta Basin, which historically was a tidal marsh formed in an overflow area of the Sacramento and San Joaquin Rivers. During the early part of the 20th century, over 80 percent of the Delta was reclaimed through construction of levees. There are over 1,100 miles of man-made levees protecting land in the Delta from flooding. The RD-17 levee system is designed to a 100-year protection standard. However, no levees meet the State's 200-year flood protection requirement in the Central Valley Flood Protection Plan.

According to the Lower San Joaquin River and Delta South Regional Management Plan, flooding in the City of Stockton comes from three main sources: The San Joaquin River, local creek flooding, and high tides. Flooding events from the San Joaquin River can last months and are typically caused by prolonged snow melts, rain-on-snow events, and/or prolonged duration atmospheric river rainfall events. Local creek flooding events generally last days to a week and are typically caused by very intense, short duration "cloudburst" rainfall events and/or prolonged duration atmospheric river

rainfall events. Lastly, flood events from high tides generally last between a few hours and cyclical over a few days.

Figure 3.9-2 illustrates the Federal Emergency Management Agency (FEMA) Flood Zone Designations for portions of the Project site and surrounding areas. The majority of the Project site is located within the 100-Year designated FEMA Flood Zone. Additionally, portions of the Project site adjacent to the French Camp Slough are designated within the Regulatory Floodway and smaller portions of the Project site are within the 500-year flood zone and areas of minimal flood hazards. It should be noted that the Project site is not within a 200-year flood zone or within the 200-year United States Army Corp of Engineers Comprehensive Study Flood Plain.

100-YEAR FLOODPLAIN

The 100-Year floodplain denotes an area that has a one percent chance of being inundated during any particular 12-month period. Floodplain zones (Special Flood Hazard Areas [SFHA]) are determined by the Federal Emergency Management Agency (FEMA) and used to create Flood Insurance Rate Maps (FIRMS). These tools assist communities in mitigating flood hazards through land use planning. FEMA also outlines specific regulations, intended to be adopted by the local jurisdictions, for any construction, whether residential, commercial, or industrial within 100-year floodplains.

Lands within the FEMA-designated 100-year floodplain (SFHA) are subject to mandatory flood insurance as required by FEMA. The insurance rating is based on the difference between the base flood elevation (BFE), the average depth of the flooding above the ground surface for a specific area, and the elevation of the lowest floor. Because the City of Stockton participates in the National Flood Insurance Program, it must require development permits to ensure that construction materials and methods will mitigate future flood damage, and to prevent encroachment of development within floodways. New construction and substantial improvements of residential structures are also required to “have the lowest habitable floor (including the basement if it is, or easily could be ‘habitable’) elevated to or above the base flood level.” Non-residential structures must have their utility systems above the BFE or be of flood-proof construction.

REGULATORY FLOODWAY

A “Regulatory Floodway” refers to the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. FEMA requires communities to regulate the development in these floodways to ensure that there are no increases in upstream flood elevations.

Dam Failure

The southwest corner of the Project site south of the French Camp Slough is located within the New Melones Dam Inundation Area, as shown in Figure 3.9-3. Dam failure is generally a result of structural instability caused by improper design or construction, instability resulting from seismic shaking, or overtopping and erosion of the dam. Larger dams that are higher than 25 feet or with

storage capacities over 50 acre-feet of water are regulated by the California Dam Safety Act, which is implemented by the California Department of Water Resources, Division of Safety of Dams (DSD). The DSD is responsible for inspecting and monitoring these dams. The Act also requires that dam owners submit to the California Office of Emergency Services inundation maps for dams that would cause significant loss of life or personal injury as a result of dam failure. The County Office of Emergency Services is responsible for developing and implementing a Dam Failure Plan that designates evacuation plans, the direction of floodwaters, and provides emergency information.

Stormwater Quality

Potential hazards to surface water quality include the following nonpoint pollution problems: high turbidity from sediment resulting from erosion of improperly graded construction projects, concentration of nitrates and dissolved solids from agriculture or surfacing septic tank failures, contaminated street and lawn run-off from urban areas, and warm water drainage discharges into cold water streams.

The most critical period for surface water quality is following a rainstorm which produces significant amounts of drainage runoff into streams at low flow, resulting in poor dilution of contaminants in the low flowing stream. Such conditions are most frequent during the fall at the beginning of the rainy season when stream flows are near their lowest annual levels. Besides the greases, oils, pesticides, litter, and organic matter associated with such runoff, heavy metals such as copper, zinc, and cadmium can cause considerable harm to aquatic organisms when introduced to streams in low flow conditions.

Urban stormwater runoff was managed as a non-point discharge (a source not readily identifiable) under the Federal Water Pollution Control Amendments of 1972 (PL 92-500, Section 208) until the mid-1980's. However, since then, the Federal Environmental Protection Agency has continued to develop implementing rules which categorize urban runoff as a point source (an identifiable source) subject to National Pollution Discharge Elimination System (NPDES) permits. Rules now affect medium and large urban areas, and further rulemaking is expected as programs are developed to meet requirements of Federal water pollution control laws.

Surface water pollution is also caused by erosion. Excessive and improperly managed grading, vegetation removal, quarrying, logging, and agricultural practices all lead to increased erosion of exposed earth and sedimentation of watercourses during rainy periods. In slower moving water bodies these same factors often cause a buildup of siltation, which ultimately reduces the capacity of the water system to percolate and recharge groundwater basins, as well as adversely affecting both aquatic resources and flood control efforts.

303(D) IMPAIRED WATER BODIES

Section 303(d) of the federal Clean Water Act requires States to identify waters that do not meet water quality standards or objectives and thus, are considered "impaired." Once listed, Section 303(d) mandates prioritization and development of a Total Maximum Daily Load (TMDL). The TMDL is a tool that establishes the allowable loadings or other quantifiable parameters for a waterbody

3.9 HYDROLOGY AND WATER QUALITY

and thereby the basis for the States to establish water quality-based controls. The purpose of TMDLs is to ensure that beneficial uses are restored and that water quality objectives are achieved.

According to the California Water Quality Control Monitoring Council, which is part of California Environmental Protection Agency, Natural Resources, there are many areas within the San Joaquin County which are considered Section 303(d) impaired waterbodies. The Project site, via North Littlejohns Creek and French Camp Slough, indirectly drains into the San Joaquin River. The San Joaquin River, from the Merced River to the south Delta Boundary, is listed as impaired for boron, chlorpyrifos, DDT, diazinon, electrical conductivity, Group A pesticides¹, mercury, and unknown toxicity. These sources of pollution are mainly attributed to agriculture and resource extraction. Additionally, the waterways in the regional vicinity of the Project site that are impaired are referred as Delta Waterways (Southern Portion) by the Water Quality Control Monitoring Council. This includes 3,125 acres listed as early as 1996 for Chlorpyrifos (Agriculture, Urban Runoff/Storm Sewers), DDT (Agriculture), Diazinon (Agriculture, Urban Runoff/Storm Sewers), Electrical Conductivity (Agriculture), Group A Pesticides (Agriculture), Invasive Species (Source Unknown), Mercury (Resource Extraction), and Unknown Toxicity (Source Unknown).

3.9.2 REGULATORY SETTING

There are a number of regulatory agencies whose responsibility includes the oversight of the water resources of the state and nation including the Federal Emergency Management Agency, the US Environmental Protection Agency, the State Water Resources Board, and the Regional Water Quality Control Board. The following is an overview of the federal, state and local regulations that are applicable to the proposed Project.

FEDERAL AND STATE

Clean Water Act

The Clean Water Act (CWA), initially passed in 1972, regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the act establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES Program. Section 402(p) requires that stormwater associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit.

The State Water Resources Control Board (SWRCB) is responsible for implementing the Clean Water Act and does so through issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for stormwater discharges (individual permits and general permits). The SWRCB elected to adopt a statewide general permit (Water Quality Order No. 2013-001-DWQ-DWQ).

¹ Group A Pesticides could include aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, hexachlorocyclohexane (including lindane), endosulfan, and toxaphene.

National Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Agency (FEMA) to evaluate flood hazards. FEMA provides Flood Insurance Rate Maps (FIRMs) for local and regional planners to promote sound land use and floodplain development by identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts engineering studies referred to as Flood Insurance Studies (FISs). The most recent FIS and FIRMs were completed and published for the City of Stockton in 2009. Using information gathered in these studies, FEMA engineers and cartographers delineate Special Flood Hazard Areas (SFHAs) on FIRMs.

The Flood Disaster Protection Act (FDPA) requires owners of all structures in identified SFHAs to purchase and maintain flood insurance as a condition of receiving federal or federally-related financial assistance, such as mortgage loans from federally-insured lending institutions. Community members within designated areas are able to participate in the National Flood Insurance Program (NFIP) afforded by FEMA. The NFIP is required to offer federally-subsidized flood insurance to property owners in those communities that adopt and enforce floodplain management ordinances that meet minimum criteria established by FEMA. The National Flood Insurance Reform Act of 1994 further strengthened the NFIP by providing a grant program for state and community flood mitigation projects. The act also established the Community Rating System (CRS), a system for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as managing erosion hazards.

The City of Stockton, under NFIP, has created standards and policies to ensure flood protection. These policies address development and redevelopment, compatibility of uses, required predevelopment drainage studies, compliance with discharge permits, enhancement of existing waterways, cooperation with the US Army Corps of Engineers (Corps) and the San Joaquin Area Flood Control Agency (SJAFC) for updating, and method consistency with the Regional Water Quality Control Board (RWQCB) and proposed best management practices (BMPs).

200-Year Flood Protection in the Central Valley

Both State policy and recently enacted State legislation (Senate Bill 5) call for 200-year (0.5% annual chance) flood protection to be the minimum level of protection for urban and urbanizing areas in the Central Valley. Senate Bill 5 (SB 5) requires that the 200-year protection be consistent with criteria used or developed by the Department of Water Resources. SB 5 requires all urban and urbanizing areas in the Sacramento and San Joaquin Valleys to achieve 200-year flood protection in order to approve development. The new law restricts approval of development after 2016 if “adequate progress” towards achieving this standard is not met. Urban and urbanizing areas protected by State-Federal project levees cannot use “adequate progress” as a condition to approve development after 2025. Adequate progress is defined as meeting all of the following:

1. The project scope, cost and schedule have been developed;
2. In any given year, at least 90% of the revenues scheduled for that year have been appropriated and expended consistent with the schedule;

3. Construction of critical features is progressing as indicated by the actual expenditure of budget funds;
4. The city or county has not been responsible for any significant delay in completion of the system; and
5. The above information has been provided to the DWR and the Central Valley Flood Protection Board and the local flood management agency shall annually report on the efforts to complete the project.

California Water Code

The Federal Clean Water Act places the primary responsibility for the control of surface water pollution and for planning the development and use of water resources with the states, although this does establish certain guidelines for the States to follow in developing their programs and allows the Environmental Protection Agency to withdraw control from states with inadequate implementation mechanisms.

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region the regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

The Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

- (a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:
 - (1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.

(2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.

(3) A person operating, or proposing to construct, an injection well.

(b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.

(c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

National Pollutant Discharge Elimination System

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges of pollutants to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, the ocean, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.).

The RWQCB issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the Environmental Protection Agency Regional Administrator. The terms of these NPDES permits implement pertinent provisions of the Federal Clean Water Act and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the California Water Code.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for periods of five years or less, and are therefore to be updated regularly. The rapid and dramatic population and urban growth in the Central Valley Region has caused a significant increase in NPDES permit applications for new waste discharges. To expedite the permit issuance process, the RWQCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. Stormwater discharges from industrial and construction activities in the Central Valley Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

Under Phase I, which started in 1990, the Regional Water Quality Control Boards have adopted NPDES stormwater permits for medium (serving between 100,000 and 250,000 people) and large (serving more than 250,000 people) municipalities. As part of Phase II, the SWRCB adopted a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities, including nontraditional Small MS4s, which are

governmental facilities such as military bases, public campuses, and prison and hospital complexes. The MS4 permits require the discharger to develop and implement a Storm Water Management Plan/Program with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). MEP is the performance standard specified in Section 402(p) of the Clean Water Act. The management programs specify what best management practices (BMPs) will be used to address certain program areas. The program areas include public education and outreach, illicit discharge detection and elimination, construction and post-construction, and good housekeeping for municipal operations.

Under Phase II requirements, dischargers in any location whose projects disturb 1 or more acres of soil or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres are required to obtain coverage under the statewide General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ). On September 2, 2009, the SWRCB adopted a new Construction General Permit (CGP) (Order No. 2009-0009-DWQ) that supersedes the existing CGP as of July 1, 2010. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The CGP requires the development and implementation of a stormwater pollution prevention plan (SWPPP). The SWPPP should contain a site map(s) that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list best management practices the discharger will use to protect stormwater runoff and the placement of those BMPs.

Assembly Bill 3030 - Groundwater Management Act

In 1992, the State Legislature provided for more formal groundwater management with the passage of Assembly Bill (AB) 3030, the Groundwater Management Act (Water Code Section 10750, et seq.). Groundwater management, as defined in DWR's Bulletin 118 Update 2003, is the planned and coordinated monitoring, operation, and administration of a groundwater basin, or portion of a basin, with the goal of long-term groundwater resource sustainability. Groundwater management needs are generally identified and addressed at the local level in the form of Groundwater Management Plans (GMP). The Act provides local water agencies with procedures to develop a GMP to enable those agencies to manage their groundwater resources efficiently and safely while protecting the quality of supplies. Under the Act, development of a GMP by a local water agency is voluntary.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) established a framework for sustainable, local groundwater management. SGMA requires groundwater-dependent regions to halt overdraft and bring basins into balanced levels of pumping and recharge. With passage of the SGMA, the Department of Water Resources launched the Sustainable Groundwater Management (SGM) Program to implement the law and provide ongoing support to local agencies around the state. The

SGMA defines “sustainable groundwater management” and requires that a Groundwater Sustainability Plan be adopted for the most important groundwater basins in California as a means to empower local agencies to manage basins sustainably. The SGMA establishes basic requirements for the Groundwater Sustainability Plans as well as a timetable for the adoption of the plans.

Water Quality Control Plan for the Central Valley Region

The Water Quality Control Plan for the Central Valley Region (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term “water quality standards,” as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region’s ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

The Delta Reform Act of 2009

While there are many agencies involved in both the near and long-term management of the Delta, the Sacramento-San Joaquin Delta Reform Act of 2009 (Delta Reform Act) established the Delta Stewardship Council (Council) to create a comprehensive, long-term, legally enforceable plan to guide how multiple federal, state, and local agencies manage the Delta’s water and environmental resources. The 2009 legislation directed the Council to oversee implementation of this plan through coordination and oversight of state and local agencies proposing to fund, carry out, and approve Delta-related activities. It also granted the Council regulatory and appellate authority over certain actions that take place in whole or in part in the Delta and Suisun Marsh, referred to as covered actions.

Since 2010, the Council has developed, amended, and begun implementing the Delta Plan, addressing multiple complex challenges in the process. Much progress has been made, but much remains to be done. Developed to achieve the state’s coequal goals of a reliable statewide water supply and a protected, restored Delta ecosystem in a manner that preserves the values of the Delta as a place, the Delta Plan includes 14 regulatory policies and 95 recommendations. Collectively, these policies and recommendations address current and predicted challenges related to the Delta’s ecology, flood management, land use, water quality, and water supply reliability. The Delta Plan’s

policies and recommendations are based on best available science and depend on cooperation and coordination among federal, state, and local agencies.

Central Valley Flood Protection Board

The Central Valley Flood Protection Board (CVFPB), formerly known as the California State Reclamation Board, is the regulating authority over flood risk management in the Central Valley. In addition, CVFPB is charged with the review and adoption the CVFPP. The CVFPB's governing body consists of seven Governor-appointed and Senate-confirmed members. The board works in close partnership with the California Department of Water Resources (DWR), the US Army Corp of Engineers (USACE), and stakeholders to implement the CVFPP. The CVFPB also works closely with the California Department of Fish and Wildlife, US Fish and Wildlife, and the National Marine Fisheries Service to evaluate the environmental impacts of flood control.

Central Valley Flood Protection Plan

The CVFPP was adopted by the CVFPB on June 29, 2012. The plan provides a policy, program, and project implementation framework to help guide regional and State level financing plans and investments. The CVFPP proposes a State Systemwide Investment Approach (SSIA) for sustainable, integrated flood management in areas currently protected by facilities of the State Plan of Flood Control (SPFC). The CVFPP suggests improvements to SPFC levees located along the San Joaquin River and tributary channels in the Stockton Metropolitan Area.

LOCAL

Envision Stockton 2040 General Plan

The Envision Stockton 2040 General Plan includes several policies and actions that are relevant to hydrology, water quality, and flooding. General Plan policies and actions applicable to the Project are identified below:

POLICIES: SAFETY ELEMENT

- SAF-2.1. Ensure that community members are adequately prepared for natural disasters and emergencies through education and training.
- SAF-2.2. Prepare sufficiently for major events to enable quick and effective response.
- SAF-2.3. Protect the community from the potential flood events.
- SAF-2.4. Minimize risks to the community from flooding through appropriate siting and protection of structures and occupants.
- SAF-3.2. Protect the availability of clean potable water from groundwater sources.

ACTIONS: SAFETY ELEMENT

- SAF-2.1B. Inform the public about the specific risks of living in flood-prone areas, and provide residents instructional information on how to take steps to reduce their exposure to flood damages

- SAF-2.2A. Require new development to provide adequate access for emergency vehicles and evacuation routes, including by designing roadway systems to provide multiple escape routes in the event of a levee failure.
- SAF-2.2B. Formulate, review, periodically update, and make available to the public emergency management plans for the safe evacuation of people from areas subject to inundation from levee and dam failure.
- SAF-2.2C. Require new critical facilities, including hospitals, emergency operations centers, communications facilities, fire stations, and police stations, to be located, designed, and constructed to avoid or mitigate potential risks and ensure functional operation during flood events (i.e., avoid locating in the 100-year and 200-year floodplains), seismic and geological events, fires, and explosions.
- SAF-2.2D. Continue to work with San Joaquin County, the County Office of Emergency Services, other cities in the region, and disaster agencies to coordinate disaster and emergency preparedness planning.
- SAF-2.3A. Coordinate with appropriate State, federal, and local flood control agencies to develop a flood protection plan for the levee systems protecting the city that:
 - Identifies the levees protecting the city and the entities responsible for the operation and maintenance of the levees;
 - Determines the flood levels in the waterways and the level of protection offered by the existing levees along the waterways;
 - Identifies a long-term plan to upgrade the system as necessary to provide at least a 100-year level of flood protection to the city, and 200-year level of flood protection, where feasible;
 - Encourages multi-purpose flood management projects that, where feasible, incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the city's streams, creeks, and lakes; and
 - Includes provisions for updates to reflect future State or federally mandated levels of flood protection.
- SAF-2.3B. Collaborate with State and local flood management agencies and other interested parties to develop funding mechanisms to finance the local share of flood management responsibilities, and maintain cooperative working relationships with appropriate agencies to minimize flood hazards and improve safety.
- SAF-2.3C. Require new public and private waterfront development to be oriented to waterways and provide setbacks and easements along levees and channels to provide space for levee widening, flood fighting, roadway and maintenance access, open space and trail amenities, and appropriate landscaping.
- SAF-2.3D. Prepare and maintain a map of evacuation routes for major flood events.
- SAF-2.4A. Regulate new urban development in accordance with State requirements for 200-year level of flood protection and federal requirements for 100-year level of flood protection.
- SAF-2.4C. Preserve floodways and floodplains for non-urban uses to maintain existing flood carrying capacities, except when mitigated in conformance with the City's floodplain management program.

- SAF-2.4D. Consider the best available flood hazard information and mapping from regional, State, and federal agencies to inform land use and public facilities investment decisions.
- SAF-3.2A. Continue to cooperate with San Joaquin County, Stockton East Water District, and CalWater to monitor groundwater withdrawals and ensure that they fall within the target yield for the drinking water aquifer.
- SAF-3.2B. Require new development to employ low impact development (LID) approaches, including:
 - Conserving natural areas and reducing imperviousness;
 - Runoff storage;
 - Hydro-modification (to mimic pre-development runoff volume and flow rate);
 - Reducing trash accumulation; and
 - Public education and outreach.

City of Stockton Municipal Code

The City of Stockton sets forth stormwater quality requirements in Municipal Code Chapter 13.16, Stormwater Management and Discharge Control, and 13.20, Stormwater Quality Control Criteria Plan. Chapter 15.44, Flood Damage Prevention, outlines specific requirements for new developments within floodplain areas that serve to minimize public and private losses due to flood conditions. Chapter 15.48, Grading and Erosion Control, of the Stockton Municipal Code regulates grading and erosion control in the city.

City of Stockton and San Joaquin County Stormwater Quality Control Criteria Plan

The Stormwater Quality Control Criteria Plan (SWQCCP) was prepared to accomplish the following goals:

- Protect water resources of the City and County from the adverse impacts of urban stormwater runoff;
- Ensure that the implementation of the measures in the SWQCCP is consistent with the NPDES permit and other State requirements, including trash control;
- Provide clear development standards for developers, design engineers, agency engineers, and planners to use in the selection and implementation of appropriate control measures;
- Emphasize the implementation of low impact development (LID)-based strategies; and
- Provide maintenance procedures to ensure that the selected control measures will be maintained to provide effective, long-term pollution control.

The control measures, often termed BMPs, were selected to optimize post-construction, on-site stormwater pollution control. All Priority New Development and Significant Redevelopment Projects must apply all four categories of stormwater pollution controls measures, which include:

- Site Design Controls;
- Source Controls;

- Volume Reduction Measures; and
- Treatment Controls.

In addition, all Priority Projects and Priority Land Use Projects must apply trash control measures (Section 6).

The principal objective of the Site Design Controls is to reduce stormwater runoff peak flows and volumes through appropriate site design. The benefits derived from this approach include:

- Reduced size of downstream treatment controls and conveyance systems;
- Reduced pollutant loading to treatment controls; and
- Reduced hydraulic impact on receiving streams.

City of Stockton NPDES Stormwater Management Plan

The City of Stockton NPDES Stormwater Management Plan (SWMP) includes existing and enhanced program control measures, represents the strategy for controlling the discharge of pollutants from the municipal storm drain system to the MEP. The core objectives of the SWMP are to:

1. Identify and control those pollutants in urban runoff that pose significant threats to the waters of the State and waters of the U.S. and their beneficial uses;
2. Comply with the federal regulations to eliminate or control, to the MEP, the discharge of pollutants from urban runoff associated with the stormwater drainage system;
3. Achieve compliance with water quality standards;
4. Develop a cost-effective program which focuses on pollution prevention of urban stormwater;
5. Seek cost-effective alternative solutions where prevention is not a practical solution for a significant problem; and
6. Coordinate the implementation of control measures with other agencies.

To address the core objectives and pollutants of concern, the NPDES SWMP incorporates a series of commitments and performance standards and, as a result, provides for a long-term, comprehensive, and multidisciplinary effort by the City to achieve water quality standards and protect beneficial uses. Pursuant to the NPDES SWMP, the Project will be required to prepare a Project Stormwater Quality Control Plan (SQCP) specifying BMPs the project will use, and design specifications for selected BMPs, for submission to the City of Stockton Department of Municipal Utilities (for projects in the city).

Eastern San Joaquin Groundwater Authority

In 2014, the California legislature enacted the Sustainable Groundwater Management Act (SGMA) in response to continued overdraft of California's groundwater resources. The Eastern San Joaquin Groundwater Subbasin is one of 21 basins and subbasins identified by the California Department of Water Resources (DWR) as being in a state of critical overdraft. The ESJGWA was formed in 2017 in response to SGMA. A Joint Exercise of Powers Agreement establishes the ESJGWA, which is composed of 16 Groundwater Sustainability Agencies, including the Central Delta Water District,

Central San Joaquin Conservation District, City of Lodi, City of Manteca, City of Stockton, Eastside San Joaquin GSA, Linden County Water District, Lockeford Community Services District, North San Joaquin Water Conservation District, Oakdale Irrigation District, San Joaquin County Number 1, San Joaquin County Number 2, South San Joaquin GSA, Stockton East Water District, and the Woodbridge Irrigation District. The ESJGWA is governed by a 16-member Board of Directors (ESJGWA Board), with one representative from each GSA.

In November 2019, the ESJGWA adopted the Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan (GSP) to address the overdraft condition in the subbasin. The sustainability goal description for the Eastern San Joaquin Groundwater Subbasin is to maintain an economically-viable groundwater resource for the beneficial use of the people of the Eastern San Joaquin Groundwater Subbasin by operating the Subbasin within its sustainable yield or by modification of existing management to address future conditions. This goal will be achieved through the implementation of a mix of supply and demand type projects consistent with the GSP implementation plan.

San Joaquin Area Flood Control Agency

In 1995, the San Joaquin Area Flood Control Agency (SJAFCA) was created as a Joint Powers Authority between the City of Stockton, San Joaquin County and the San Joaquin County Flood Control and Water Conservation District for the purpose of addressing flood protection for the City of Stockton and surrounding County area. SJAFCA's first endeavor was to prevent the possible de-accreditation of levees and to improve project levees to meet FEMA standards. As a result, SJAFCA constructed the Flood Protection Restoration Project (FPRP) which consisted of flood wall and levee improvements along 40 miles of existing channel levees, 12 miles of new levees, modifications to 24 bridges and the addition of two major detention basins and pumps.

Recent flooding disasters, such as Hurricane Katrina, have resulted in a reevaluation of local flood risk and flood protection. FEMA has undertaken a Map Modernization Program that has resulted in a levee recertification program with new and more stringent levee standards. SJAFCA is facing a number of challenges to assure flood protection facilities meet both State and Federal regulatory requirements. SJAFCA works with San Joaquin, other cities, and local reclamation districts to address flood protection and levee requirements in our area. SJAFCA coordinates and partners with State and Federal agencies to address FEMA's Flood Insurance Rate Maps, levee standards, and flood protection issues.

Lower San Joaquin River & Delta South Regional Flood Management Plan

In 2014, the SJAFCA prepared and adopted the Lower San Joaquin River and Delta South Regional Flood Management Plan to provide a reconnaissance-level assessment of flood risks, and identify a prioritized list of near-term and long-term flood risk reduction projects for the Regions. The Lower San Joaquin River and Delta South Regional Flood Management Plan is a multi-faceted plan to improve public safety through integrated flood management in order to reduce the chance and consequences of flooding while promoting coincident integrated water management benefits, other multi-benefit components, and sustainable economic growth. The goal of this regional flood

management plan was to improve flood management systems, emergency response, the operation and maintenance, the ecosystem, and both public and institutional awareness.

3.9.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on the environment associated with hydrology and water quality if it will:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would:
 - Result in substantial erosion or siltation on- or off-site;
 - Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;
 - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
 - Impede or redirect flood flows;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation;
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

IMPACTS AND MITIGATION

Impact 3.9-1: The proposed Project has the potential to violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality (Less than Significant with Mitigation)

CONSTRUCTION PHASE

Grading, excavation, removal of vegetation cover, and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

To ensure Project construction activities are covered under General Permit 2009-0009-DWQ (amended by 2010-0014-DWQ & 2012-0006-DWQ), the Project would be required to prepare a

Stormwater Pollution Prevention Plan (SWPPP) containing Best Management Practices (BMPs) to reduce erosion and sediments to meet water quality standards (Mitigation Measure 3.9-1). Such BMPs may include: temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover. The BMPs and overall SWPPP is reviewed by the Regional Water Quality Control Board as part of the permitting process. The SWPPP, once approved, is kept on site and implemented during construction activities and must be made available upon request to representatives of the RWQCB and/or the lead agency. Upon completion of the Project, the applicant would be required to submit a Notice of Termination to the State Regional Water Quality Control Board to indicate that construction is completed. Mandatory compliance with the SWPPP would ensure that the proposed Project would not violate any water quality standards or waste discharge requirements during construction activities. Additionally, the Project will be required to comply with Stockton Municipal Chapter 13.16, Stormwater Management and Discharge Control, which establishes limitations and regulations for discharges into the City's stormwater system, and Chapter 13.20, Stormwater Quality Control Criteria Plan, which establishes requirements that control the discharges of pollutants. Therefore, water quality impacts associated with construction activities would be less than significant.

OPERATIONAL PHASE

The long-term operations of the proposed Project (all phases) could result in long-term impacts to surface water quality from urban stormwater runoff. The proposed Project would result in increased impervious area at the site as a result of the proposed development. Normal activities in these developed areas include the use of various automotive petroleum products (i.e. oil, grease, and fuel), common household hazardous materials, heavy metals, pesticides, herbicides, fertilizers, and sediment. Within urban areas, these pollutants are generally called nonpoint source pollutants. The pollutant levels vary based on factors such as time between storm events, volume of storm event, type of uses, and density of people.

A guiding stormwater management principle for projects should be that it does not result in new impacts to properties downstream or upstream. Potential impacts include considerations of both stormwater quantity and quality. Long-term water quality could be significant due to development of the proposed Project; however, the Project would be designed to conform with current City of Stockton standard requirements, as discussed below.

The Project proposes to construct two storm drain detention basins to provide flood control (flood control basins). The primary flood control basin will be approximately 28 acres located within the northwest corner of the Project site, east of the UPRR right-of-way. Additionally, the Project proposes to construct a storm drainage flood channel generally along the northern edge of Parcels 3, 4 and 5 of the Project's Tentative Map (see Figure 2.0-7). The flood control channel will connect to a proposed outfall to the primary flood control basin, generally located within the northeast area of the basin. A storm drain (ranging from 15 to 96 inches) is proposed within the proposed Commerce Drive right-of-way. The storm drain will extend from Commerce Drive along the southern and western edges of Parcel 1 of the Project's Tentative Map (see Figure 2.0-7) and connect to the

proposed outfall to the primary detention basin. The proposed outfall and a storm drain pump station are proposed to be located generally within the southwest area of the basin.

The secondary flood control basin will be approximately 13 acres, located west of the UPRR right-of-way, between the future Commerce Drive and French Camp Slough. The proposed storm drain in Commerce Drive will connect to the proposed outfall to the flood control basin, generally located within the northeast area of the basin. An outfall from the basin to French Camp Slough will also be constructed.

The overall design of the drainage infrastructure, including the proposed detention basins, will be required to comply with the *City of Stockton NPDES SWMP* (City of Stockton, April 2009), which includes existing and enhanced program control measures for controlling the discharge of pollutants to the municipal storm drain system to the maximum extent practicable (MEP). In addition, General Plan Action SAF-3.2B requires new development to employ low impact development (LID) approaches that conserve natural areas and reduce impervious areas. The term LID means a storm water management and land development strategy that emphasizes conservation and the use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely reflect predevelopment hydrologic functions. The Project would be required to integrate LID measures throughout the Project to provide stormwater quality treatment. These LID measures would likely include both volume-based best management practices (BMPs) (i.e., bioretention, infiltration features, pervious pavement, etc.) and flow-based BMPs (i.e., vegetated swales, stormwater planter, etc.). The use of these features would be dependent upon the location and setting within the Project site.

According to the *City of Stockton SWQCCP*, the Project is considered a priority project as it would result in the development of more than 5,000 square feet of industrial/commercial developments. Priority projects are required to prepare and submit a Project Stormwater Quality Control Plan that demonstrates the Project incorporates site design measures, landscape features, and engineered treatment facilities (typically bioretention facilities) that will minimize imperviousness, retain or detain stormwater, slow runoff rates, and reduce pollutants in post-development runoff. In particular, the Project Stormwater Quality Control Plan will need to specify BMPs the Project will use and design specifications for selected BMPs. The Project Stormwater Quality Control Plan must be submitted for review and approval by the City of Stockton Department of Municipal Utilities, as required by Mitigation Measure 3.9-2. Implementation of Mitigation Measure 3.9-2 would require the Project to be consistent with regulatory requirements, which would ensure that the proposed Project would have a ***less than significant*** impact on operation related water quality.

MITIGATION MEASURE(S)

Mitigation Measure 3.9-1: Prior to any site disturbance, the Project proponent shall submit a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) to the RWQCB in accordance with the NPDES General Construction Permit requirements. The SWPPP shall be designed to control pollutant discharges utilizing Best Management Practices (BMPs) and technology to reduce erosion and sediments. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater runoff from the Project site. Measures shall include temporary erosion control measures

(such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) that will be employed to control erosion from disturbed areas. Final selection of BMPs will be subject to approval by the City of Stockton and the RWQCB. The SWPPP will be kept on site during construction activity and will be made available upon request to representatives of the RWQCB.

Industrial uses on the project shall obtain coverage under the Central Valley RWQCB Industrial General Permit program and implement pollution control measures using the best available technology economically achievable and best conventional pollutant control technology. All facility operators shall prepare, retain on site, and implement a SWPPP implementing applicable Industrial General Permit requirements, including a monitoring program

Mitigation Measure 3.9-2: *Prior to the issuance of grading permits, the applicant and/or future Project proponent must submit a site-specific Project Stormwater Quality Control Plan to the City of Stockton Department of Municipal Utilities for review and approval. The project must comply with the Stockton Municipal Code Section 15.48.050, which requires construction activities to be designed and conducted to minimize discharge of sediment and all other pollutants and Section 15.48.070, which contains standards for implementation of Best Management Practices. The site-specific Project Stormwater Quality Control Plan must specify BMPs the Project will use and design specifications for selected BMPs to ensure the Project's consistency with State and local water quality regulations.*

Impact 3.9-2: The proposed Project has the potential to substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin (Less than Significant)

As previously stated, the Project site is located in the Eastern San Joaquin Groundwater Basin. Much of the groundwater recharge in the basin occurs in the sand and gravels along the San Joaquin River from Sierra snowmelt flowing downstream. Precipitation in the region is 13.81 inches, most of which falls between November through April. A portion of this annual rainfall infiltrates the soil and groundwater basin, while a portion is discharged downstream into the Delta. While the proposed Project would reduce the amount of pervious surfaces within the Project site, the proposed Project is designed to promote infiltration of groundwater in areas with pervious surface. Storm drainage flows in the Project site would be directed to one of two drainage basins, which include outfalls into the French Camp Slough. Additionally, the Project includes a drainage channel for flood control. In the event that Weber Slough overflows, the flood waters will spill into the flood channel and be directed to the northern onsite basin. Onsite stormwater runoff will be directed into an underground pipe system which will collect the runoff and direct it to the onsite basins. Upon compliance with Mitigation Measure 3.9-2, the Project will have incorporated site design measures, landscape features, and approved engineered treatment facilities (typically bioretention facilities) for water quality treatment that minimizes imperviousness, retains or detains stormwater, slows runoff rates, and reduces pollutants in post-development runoff consistent with the *City of Stockton NPDES SWMP*.

The City of Stockton Metropolitan Area (COSMA) has three water retailers including the City of Stockton Municipal Utilities District (COSMUD), California Water Service Company (Cal Water), and San Joaquin County within their respective service areas. The Project site will receive its water from the COSMUD, which relies on purchased water from the Calaveras, Stanislaus, and Mokelumne Rivers; surface water from the San Joaquin Delta; and groundwater. According to the Water Supply Assessment (WSA) prepared by COSMUD for the Project, sufficient water supplies exist to meet the Project's build-out water demand as well as all existing and reasonably foreseeable water demands. Additionally, the WSA concludes that the existing near-term and long-term reliable supplies of surface water supplies and indigenous groundwater supplies can deliver a sustainable reliable water supply to meet existing and foreseeable water demands without impacting environmental values and/or impacting the current stabilization of the groundwater basin underlying the COSMA (COSMUD, October 2020). As such, implementation of the proposed Project would have a *less than significant* impact relative to this topic.

Impact 3.9-3: The proposed Project would not alter the existing drainage pattern of the site or area, including the alteration of the course of a river or through the addition of impervious surfaces, in a manner which would result in substantial erosion, siltation, surface runoff, flooding, or polluted runoff (Less than Significant)

Currently, runoff from within the Project site is collected in a system of shallow agricultural and roadside ditches. The French Camp Slough extends southeast from Airport Way across the southwestern portion of the site. The slough continues east under the UPRR and then south across the southwestern portion of the site. Before continuing south off-site, an irrigation canal/ditch breaks off of the French Camp Slough, which runs from west to east providing water to the on-site crops. Additionally, an irrigation ditch/canal runs along the northern boundary of the Project site.

As previously discussed, the majority of the Project site is located within the French Camp Slough watershed with a small portion located in the Littlejohns Creek watershed. The French Camp Slough, which receives flows from North Littlejohns Creek and Weber Slough, flows into the San Joaquin River west of the Project site. The proposed Project would alter the existing drainage site through grading and future development of the 13 development lots, two basin lots, two open space lots, one sewer pump station lot, and off-site sewer improvements. As described in Chapter 2.0, Project Description, the Project would result in a maximum of 6,091,551 square feet of industrial type land uses, 140,350 square feet of commercial land uses, 54 acres of open space, 41 acres of public facilities, and 19 acres of right-of-way circulation improvements. Development of the proposed Project, when complete, would result in increased impervious surfaces and result in an incremental reduction in the amount of natural soil surfaces available for infiltration of rainfall and runoff, thereby generating additional runoff during storm events. Additional runoff could contribute to increased erosion, siltation, and pollution, and increase in flood potential, or runoff that could exceed the capacity of the City's drainage system.

According to the South Stockton Commerce Center (SSCC) Hydrologic and Hydraulic Assessment prepared by Kjeldsen, Sinnock, and Neudeck (KSN) (December 2020), the proposed drainage

infrastructure on-site would include a pair of flood control basins. In order to route floodwaters away from the proposed buildings and other infrastructure, an approximately 5,500 feet flood control channel would also be developed along the northern edge of the Project. The flood channel would collect water leaving Weber Slough towards the south and route it towards the west eventually discharging the Weber Slough overflow into the northern flood control basin. The northern flood control basin would be fed directly by the flood control channel and has a total capacity of approximately 450 ac-ft. The southern flood control basin (+132 ac-ft capacity) will be filled primarily by overflows from the French Camp Slough levee system to the south with some minor collection of Weber Slough overflows between Airport Way and the Union Pacific Railroad. The Union Pacific Railroad provides a hydraulic break between the Project areas contributing to the northern flood control basin and the southern flood control basin as it does not overtop during a 100-year flood event (KSN, December 2020).

The majority of floodwater entering the northern flood control basin would be directly flowing from the Weber Slough adjacent to the north basin's north western side. Currently, the Weber Slough channel capacity is insufficient to convey the 100-year flood within its banks, thus overflow occurs. Implementation of the proposed Project would allow for approximately 138.1 ac-ft of flows originating directly from the Weber Slough area to be intercepted by and stored within the northern flood control basin assisting with overall Project site drainage and flooding. Additionally, a comparison of existing conditions and proposed conditions with Project implementation revealed there are no offsite impacts which would cause an increase in water surface greater than 0.05 feet (KSN, December 2020). Therefore, implementation of the Project would not result in flooding on- or off-site or runoff water exceeding the capacity of existing or planned stormwater drainage systems.

Construction would include excavation and the overall disturbance of existing landscape, and would expose bare soil, and could temporarily alter drainage patterns with the potential to cause erosion and sedimentation. Adherence with statewide NPDES Construction General Permit and MS4 Permit construction requirements would ensure erosion or siltation does not occur onsite through implementation of erosion and sediment control BMPs during construction of the proposed Project. These requirements (see Mitigation Measure 3.9-1) would include the implementation of minimum BMPs, typical Source Control BMPs, and typical Treatment Control BMPs for erosion, sediment, non-storm water management and waste management. Adherence to the MS4 Permit and Construction General Permit conditions would ensure that potential water quality degradation associated with the construction of future development projects within the Project area would be minimized. With implementation of erosion and sediment control BMPs, as would be required by the appropriate permitting authorities, and goals, policies, and implementation measures to reduce water quality impacts, construction-related impacts related to alteration of an existing drainage pattern that could result in substantial erosion or siltation on- or off-site from future development projects occurring under the proposed Project would be less than significant.

Additionally, planned urbanization of the Project site would result in changes to land use, natural vegetation, and infiltration characteristics, and would introduce new sources of water pollutants, producing "urban runoff." Pollutants contained within urban runoff may include, but are not limited to sediment, oxygen-demanding substances (e.g., organic matter), nutrients (primarily nitrogen and

phosphorus), heavy metals, bacteria, oil and grease, and toxic chemicals that can degrade receiving waters. Urban runoff pollutants may stem from erosion of disturbed areas, deposition of atmospheric particles derived from automobile or industrial sources, corrosion or decay of building materials, rainfall contact with toxic substances, decomposing plant materials, animal excrement, and spills of toxic materials on surfaces which receive rainfall and generate runoff. New industrial development can generate urban runoff from parking areas, as well as any areas of hazardous materials storage exposed to rainfall.

In order to ensure that stormwater runoff from the Project site does not adversely increase pollutant levels in adjacent surface waters and stormwater conveyance infrastructure, or otherwise degrade water quality, Mitigation Measure 3.9-1 requires the preparation of a SWPPP, and structural BMPs. The SWPPP would require the application of BMPs to effectively reduce pollutants from stormwater leaving the site, which would ensure that stormwater runoff does not adversely increase pollutant levels, and would reduce the potential for disturbed soils and ground surfaces to result in erosion and sediment discharge into adjacent surface waters during construction and operational phases of the Project. Additionally, as described under Impact 3.9-1, the Project will be required to submit a Project Stormwater Quality Control Plan (see Mitigation Measure 3.9-2) that demonstrates the Project incorporates site design measures, landscape features, and engineered treatment facilities (typically bioretention facilities) that will minimize imperviousness, retain or detain stormwater, slow runoff rates, and reduce pollutants in post-development runoff. Further, General Plan Action SAF-3.2B requires new development to employ LID approaches that conserve natural areas and reduce impervious areas. Therefore, consistency with the General Plan and implementation of these Mitigation Measures would reduce this impact to a less-than-significant level.

Overall, compliance with Federal, State, and local standards and regulations as well as implementation of Mitigation Measures 3.9-1 and 3.9-2 would ensure that the proposed Project would not result in substantial erosion, siltation, surface runoff, flooding, or polluted runoff and that the impact would be *less than significant*.

Impact 3.9-4: The proposed Project has the potential to, in a flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation (Less than Significant with Mitigation)

FLOOD HAZARD ZONES

According to the Project's Hydrologic and Hydraulic Assessment, a majority of the Project site is located in FEMA designated Zone AO, where flood depths can reach one or more feet deep. A small portion of the Project site is also located within the New Melones Dam Inundation Area, as shown in Figure 3.9-3.

The Zone AO is considered a Special Flood Hazard Area (SFHA) and would require that the development be elevated above the base flood elevation (BFE). As discussed above, the City of Stockton has adopted a Flood Damage Prevention Ordinance (Chapter 15.44 of the Stockton Municipal Code), which outlines specific requirements for new development within floodplain areas.

3.9 HYDROLOGY AND WATER QUALITY

The City of Stockton's Municipal Code states that in a Zone AO, the lowest finished floor be: "elevated above the highest adjacent grade to a height two (2) feet above the depth number specified in feet on the FIRM, or elevated at least four (4) feet above the highest adjacent grade if no depth number is specified." As there is a depth (1 foot) published for the applicable Zone AO for this Project, the building footpads should be elevated three feet (1 foot depth plus 2 feet freeboard) above the highest adjacent grade to the building.

The typical way to elevate larger developments is to build the development upon fill placed to bring the finished floor elevation to two feet above the BFE. When using this approach, the typical method for obtaining FEMA approval is to file a Conditional Letter of Map Revision based on Fill (CLOMR-F). This requires the local NFIP administrating community's approval before it can be submitted to FEMA for review and approval. The CLOMR-F provides the developer assurances that once the stated finished floor elevation is achieved, the structure will be removed from the SFHA. Once the Project is constructed and 'as-built' information is provided to FEMA, a final Letter of Map Revision based on Fill (LOMR-F) can be obtained through a similar process.

The Hydrologic and Hydraulic Assessment included an analysis to determine potential impacts to the floodplain from placing fill to bring the finished floor elevation to three feet above highest adjacent grade. The Hydrologic and Hydraulic Assessment utilized information regarding the rough grading surfaces, proposed building layouts, and proposed stormwater infrastructure, including the two flood control basins and flood control channel, to compare the existing conditions to the proposed conditions at Project buildout. As stated in Impact 3.9-3, the Hydrologic and Hydraulic Assessment determined that there are no offsite impacts which would cause an increase in water surface greater than 0.05 feet due to Project implementation. (KSN, December 2020).

In addition to the above analysis, the Hydrologic and Hydraulic Assessment also included an evaluation of the proposed flood control system for the Project to determine if the proposed flood control system has sufficient capacity to both hold onsite run off and prevent offsite impacts from a 100-year flood event. The analysis was conducted under the assumption that the flood control basins would not be drained during the actual flood event. According to the Hydrologic and Hydraulic Assessment, the results of the analysis indicate that there are no offsite impacts and that the 100-year flood can be contained on site with runoff from the 10-year storm event being held in the north flood control basin (KSN, December 2020). Therefore, the Hydrologic and Hydraulic Assessment notes the applicant shall apply for a CLOMR based upon the effective FEMA floodplains, as required by Mitigation Measure 3.9-3.

The Project would not result in a flood hazard or result in the release of pollutants due to on- or off-site flooding due to implementation of the proposed Project upon implementation of Mitigation Measure 3.9-3. Additionally, as noted in Impact 3.9-1, the Project will be required to prepare a SWPP (Mitigation Measure 3.9-1), a Project Stormwater Quality Control Plan (Mitigation Measure 3.9-2), and implement LID approaches that conserve natural areas and reduce impervious areas to ensure stormwater runoff from the Project site does not adversely increase pollutant levels. Consequently, this impact is considered ***less than significant***.

TSUNAMIS AND SEICHES

Tsunamis originating in the Pacific Ocean would dissipate in the San Francisco Bay, and therefore pose a negligible hazard to the Project site. The probability of a seiche occurring in the San Joaquin River or in one of the many upstream reservoirs is considered minimal. Given the geologic context of the Project area, if such an event were to occur, the likelihood of it exposing Project facilities or people to a significant risk of injury or death is considered low. Given that the Project site is approximately 4.6 miles east of the San Joaquin River and is not located adjacent to an existing reservoir lake, or other large standing water body, impacts relative to this topic would be ***less than significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.9-3: Prior to the issuance of grading permits, the applicant shall obtain the local NFIP administering community's approval and file a Conditional Letter of Map Revision (CLOMR) to remove any structures located within a FEMA designated Zone AO from the Special Flood Hazard Area.

Impact 3.9-5: The proposed Project has the potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (Less than Significant)

The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins and the Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability are the two guiding documents for water quality and sustainable groundwater management in the Project area.

WATER QUALITY CONTROL PLAN FOR THE SACRAMENTO RIVER AND SAN JOAQUIN RIVER BASINS

The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The preparation and adoption of water quality control plans (Basin Plans) is required by the California Water Code (Section 13240) and supported by the Federal Clean Water Act. Section 303 of the Clean Water Act requires states to adopt water quality standards which "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses." The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

In order to ensure that stormwater runoff from the Project site does not adversely increase pollutant levels in adjacent surface waters and stormwater conveyance infrastructure, or otherwise degrade water quality, Mitigation Measure 3.9-1 requires the preparation of a SWPPP, and structural BMPs. The SWPPP would require the application of BMPs to effectively reduce pollutants from stormwater leaving the site, which would ensure that stormwater runoff does not adversely increase pollutant

levels, and would reduce the potential for disturbed soils and ground surfaces to result in erosion and sediment discharge into adjacent surface waters during construction and operational phases of the Project. Additionally, as described under Impact 3.9-1, the Project will be required to submit a Project Stormwater Quality Control Plan (see Mitigation Measure 3.9-2) that demonstrates the Project incorporates site design measures, landscape features, and engineered treatment facilities (typically bioretention facilities) that will minimize imperviousness, retain or detain stormwater, slow runoff rates, and reduce pollutants in post-development runoff. The Project would also be subject to the applicable water quality regulations, including, but not limited to, Stockton Municipal Chapter 13.16, Stormwater Management and Discharge Control, which established limitation and regulations for discharges into the City's stormwater system, and Chapter 13.20, Stormwater Quality Control Criteria Plan, which establishes requirements that control the discharges of pollutants.

EASTERN SAN JOAQUIN GROUNDWATER SUBBASIN GROUNDWATER SUSTAINABILITY PLAN

The ESJGWA adopted the Eastern San Joaquin Groundwater Subbasin (ESJGS) Groundwater Sustainability Plan in November 2019. The goal for the ESJGS Groundwater Sustainability Plan is to maintain an economically-viable groundwater resource for the beneficial use of the people of the Eastern San Joaquin Groundwater Subbasin by operating the Subbasin within its sustainable yield or by modification of existing management to address future conditions. The ESJGS Groundwater Sustainability Plan outlines the need to reduce overdraft conditions and has identified 23 projects for potential development that either replace groundwater use (offset) or supplement groundwater supplies (recharge) to meet current and future water demands. According to the plan, the Subbasin will achieve sustainability by implementing water supply projects that either replace groundwater use or supplement groundwater supplies to attain the current estimated pumping offset and/or recharge need of 78,000 AF/year.

As discussed in Impact 3.9-2, the Project would not decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. As previously stated, the Project's WSA concluded that the existing near-term and long-term reliable supplies of surface water supplies and indigenous groundwater supplies can deliver a sustainable reliable water supply to meet existing and foreseeable water demands without impacting environmental values and/or impacting the current stabilization of the groundwater basin underlying the COSMA (COSMUD, October 2020).

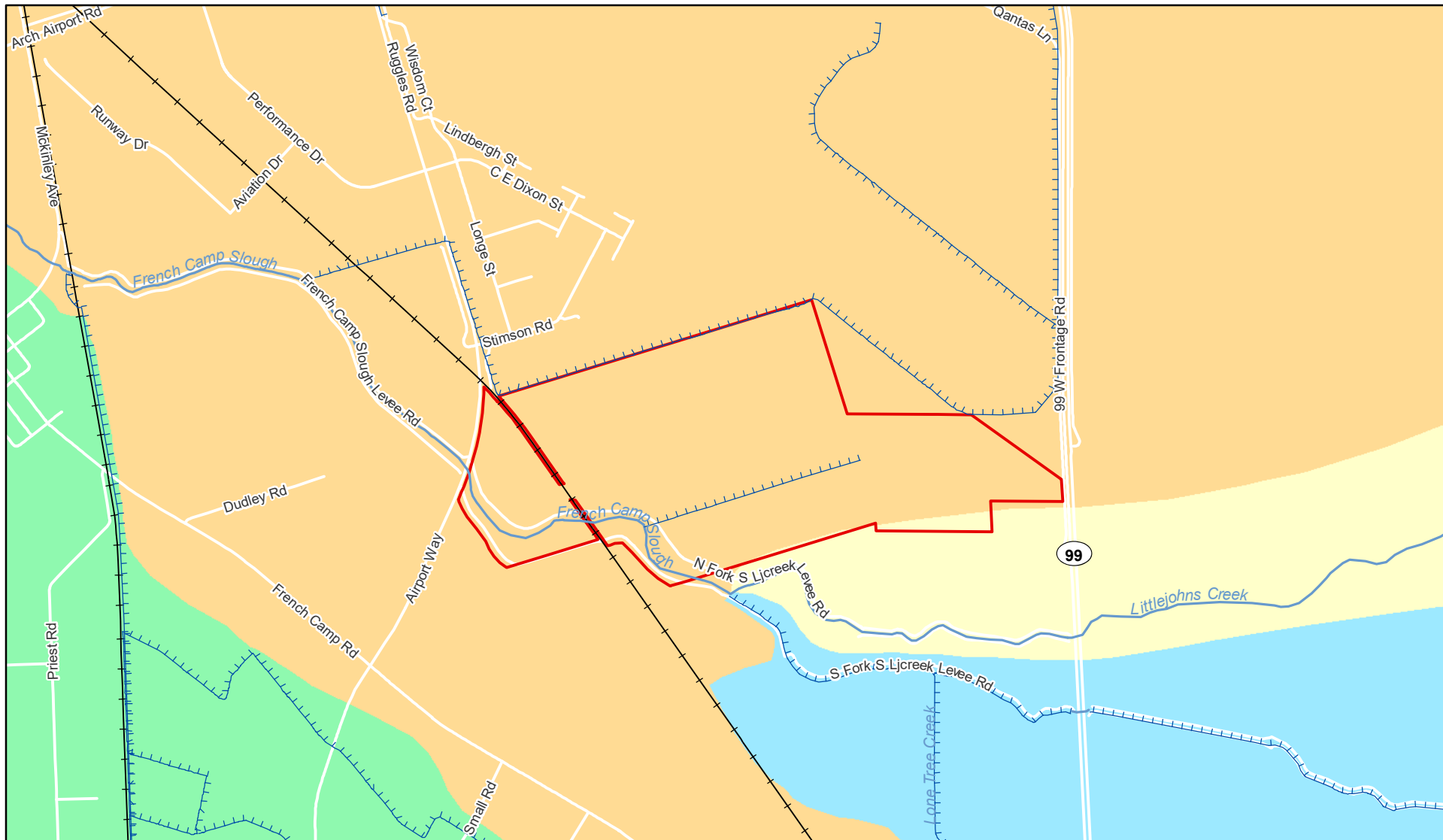
Additionally, Mitigation Measure 3.9-1 requires the preparation of a SWPPP, and structural BMPs. The SWPPP would require the application of BMPs to effectively reduce pollutants from stormwater leaving the site, which would ensure that stormwater runoff does not adversely increase pollutant levels, and would reduce the potential for disturbed soils and ground surfaces to result in erosion and sediment discharge into adjacent surface waters during construction and operational phases of the Project. Additionally, as described under Impact 3.9-1, the Project will be required to submit a Project Stormwater Quality Control Plan (see Mitigation Measure 3.9-2) that demonstrates the Project incorporates site design measures, landscape features, and engineered treatment facilities (typically bioretention facilities) that will minimize imperviousness, retain or detain stormwater, slow runoff rates, and reduce pollutants in post-development runoff. The Project would also be subject to the applicable water quality regulations, including, but not limited to, Stockton Municipal

Chapter 13.16, Stormwater Management and Discharge Control, which established limitation and regulations for discharges into the City's stormwater system, and Chapter 13.20, Stormwater Quality Control Criteria Plan, which establishes requirements that control the discharges of pollutants.

CONCLUSION

Overall, implementation of the proposed Project and adherence to the requirements of Mitigation Measures 3.9-1 and 3.9-2 would have a ***less than significant*** impact related to conflicts with the Basin Plan and the ESJGS Groundwater Sustainability Plan.

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LEGEND

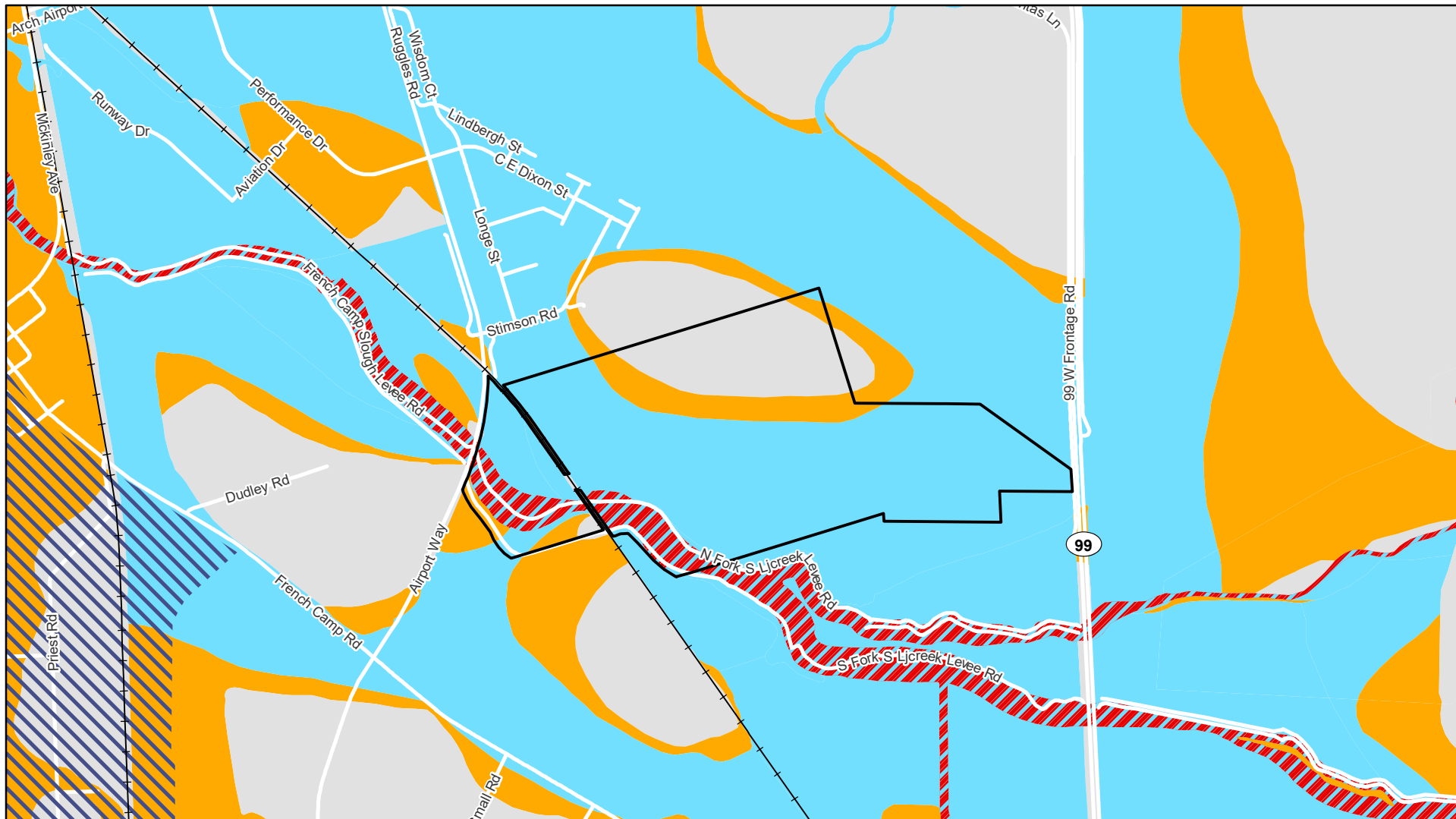
- Project Boundary
- Stream or River
- Canal or Ditch
- French Camp Slough Watershed
- Littlejohns Creek Watershed
- Lone Tree Creek Watershed
- Lone Tree Creek-San Joaquin River Watershed

Source: San Joaquin County GIS; USGS WBD. Map date: September 23, 2020. Revised: December 29, 2020; February 8, 2021.

SOUTH STOCKTON COMMERCE CENTER

Figure 3.9-1. Watersheds

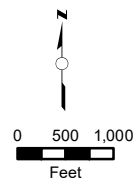
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LEGEND

- Project Boundary
- 200-Year USACE Comprehensive Study Floodplain
- FEMA Designation**
- 100-Year Flood Zone
- Regulator Floodway
- 500-Year Flood Zone
- Area of Minimal Flood Hazard

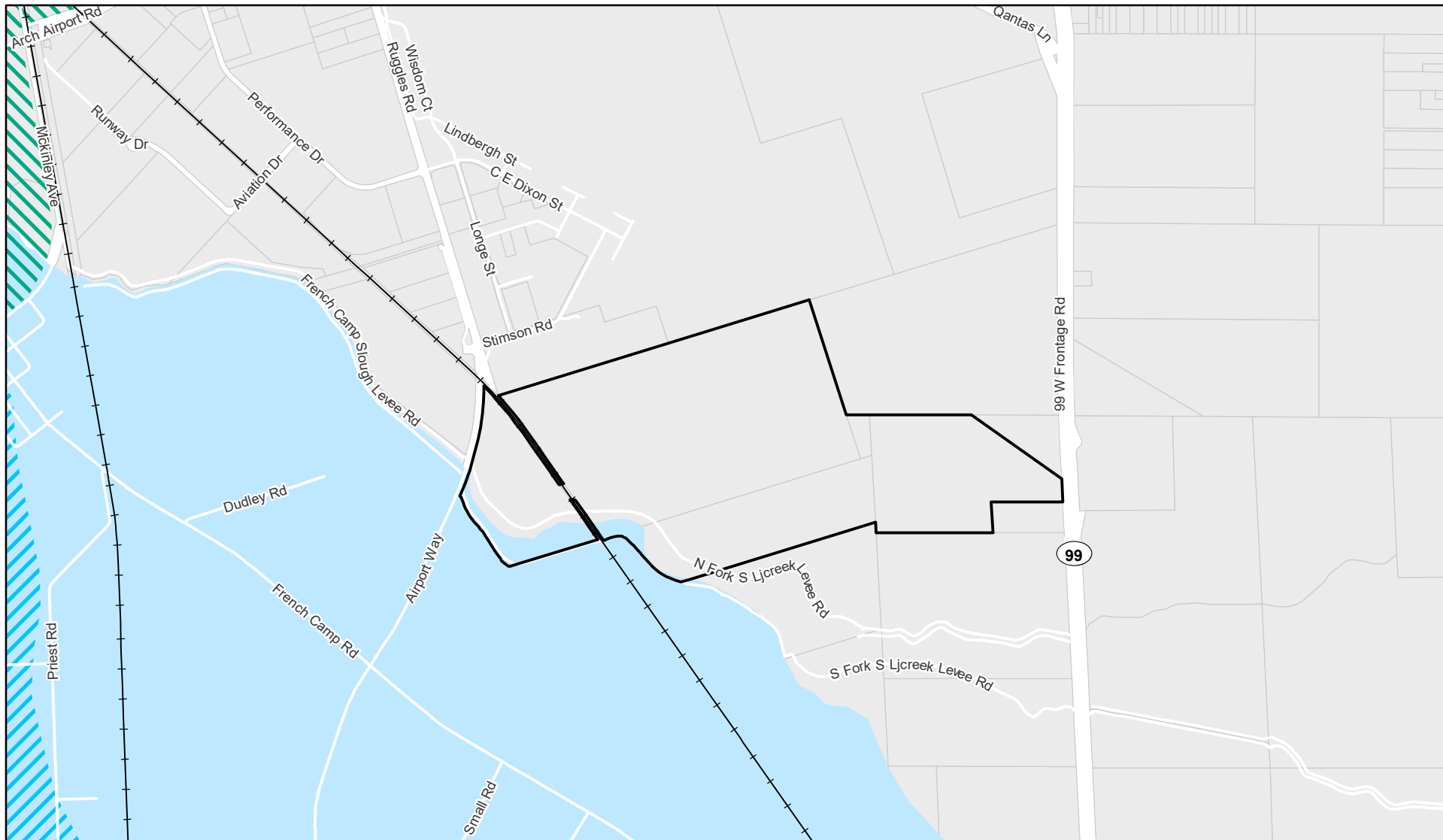
Source: San Joaquin County GIS; FEMA; DWR. Map date: September 23, 2020. Revised: December 29, 2020; February 8, 2021.







SOUTH STOCKTON COMMERCE CENTER

Figure 3.9-2. Flood Zones

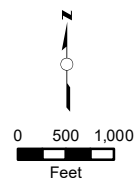
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LEGEND

-  Project Boundary
-  Camanche Dam Inundation Area
-  San Luis Dam Inundation Area
-  New Melones Dam Inundation Area

Source: San Joaquin County GIS; FEMA; DWR. Map date: September 23, 2020. Revised: December 29, 2020; February 8, 2021.



SOUTH STOCKTON COMMERCE CENTER

Figure 3.9-3. Dam Inundation Areas

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This section describes the existing land uses on the Project site and in the surrounding area, describes the applicable land use regulations, and evaluates the environmental effects of implementation of the proposed Project related to land use. Information in this section is based on information provided in the Project materials, site surveys conducted by De Novo Planning Group in 2020, and the following reference documents:

- *Envision Stockton 2040 General Plan* (2018);
- *Envision Stockton 2040 General Plan Update and Utility Master Plan Supplements Draft EIR* (2018);
- City of Stockton Municipal Code (2020); and
- *San Joaquin County General Plan* (2016).

There were no comments received during the public review period or scoping meeting for the Notice of Preparation regarding this topic.

As discussed in the Initial Study prepared for the proposed Project, the Project site is currently undeveloped and does not contain any existing housing that would be displaced. Development of the site, as proposed, would not displace substantial numbers of existing people or housing. Thus, this CEQA topic is not relevant to the proposed Project and will not be addressed further in this EIR.

3.10.1 ENVIRONMENTAL SETTING

EXISTING PHYSICAL ENVIRONMENT

The City of Stockton is located in central San Joaquin County, approximately 11 miles north of Manteca and approximately 31 miles south of Elk Grove. State Route 99 travels through Stockton near the eastern edge of the City and Interstate 5 travels through Stockton near the western edge of the City. The Stockton Planning Area, which includes the City and its Sphere of Influence, occupies an area of approximately 135 square miles.

Project Site

The proposed Project site is comprised of 422.2 acres located in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport. The Project site is located west of the 99 Frontage Road and State Route (SR) 99 and east of Airport Way. The Union Pacific Railroad (UPRR) extends south from Airport Way bisecting the western portion of the site. French Camp Slough extends southeast from Airport Way across the southwestern portion of the site. It continues east under the UPRR and then south across the southwestern portion of the site, before continuing south off-site. Figures 2.0-1 and 2.0-2 found in Chapter 2.0, Project Description, illustrate the regional location and Project vicinity.

The Project site is comprised of active agricultural fields. The majority of the fields produce watermelons, with a walnut orchard located in the eastern portion of the site. The off-site sewer

3.10 LAND USE AND POPULATION

improvements would be located along the western site frontage on Airport Way, head north along Airport Way, and terminate in Airport Way and Industrial Drive to the north.

Surrounding Land Uses

The Project site is primarily bounded by lands within the County to the north, east and south. Lands within the City of Stockton are located to the west. Uses within the surrounding area include the following:

- North – Rydberg Creek, Army National Guard and Stockton Airport. These uses are located within the County.
- East – Agricultural lands, 99 Frontage Road and SR 99.
- South – Agricultural lands and Duck and Lone Tree Creeks.
- West – The UPRR, Airport Way, and agricultural lands.

DEMOGRAPHICS

Population Trends

The City experienced a population increase from 2005 to 2015 of 26,999 persons (9.6%) as shown in Table 3.10-1. During the period from 2015 to 2020, population continued to increase in the City, resulting in a total population of 318,522 in 2020.

TABLE 3.10-1: POPULATION GROWTH

YEAR	POPULATION	CHANGE	PERCENT CHANGE
2005	280,000	-	-
2010	291,707	10,707	4.2%
2015	306,999	7,121	5.2%
2020	318,522	11,523	3.8%

SOURCES: DOF, 2005, 2010, 2015, AND 2020.

Persons Per Dwelling Unit

According to the most recent Department of Finance data (2020), the average number of persons residing in a dwelling unit in the City of Stockton is 3.26.

3.10.2 REGULATORY SETTING

STATE

Government Code

California Government Code Section 65300 et seq. establishes the obligation of cities and counties to adopt and implement general plans. The general plan is a comprehensive, long-term, and general document that describes plans for the physical development of a jurisdiction and of any land outside its boundaries that, in the jurisdiction's judgment, bears relation to its planning. The general plan addresses a broad range of topics, including, at a minimum, land use, circulation, housing, conservation, open space, noise, and safety. In addressing these topics, the general plan identifies

the goals, objectives, policies, principles, standards, and plan proposals that support the jurisdiction's vision for the area. The general plan is a long-range document that typically addresses the physical character of an area over a 20-year period. Although the general plan serves as a blueprint for future development and identifies the overall vision for the planning area, it remains general enough to allow for flexibility in the approach taken to achieve the plan's goals.

The State Zoning Law (California Government Code Section 65800 et seq.) establishes that zoning ordinances, which are laws that define allowable land uses within a specific district, are required to be consistent with the general plan and any applicable specific plans. When amendments to the general plan are made, corresponding changes in the zoning ordinance may be required within a reasonable time to ensure the land uses designated in the general plan would also be allowable by the zoning ordinance (Government Code, Section 65860, subd. [c]).

LOCAL

Envision Stockton 2040 General Plan

As noted above, General Plans are prepared under a mandate from the State of California, which requires each city and county to prepare and adopt a comprehensive, long-term general plan for its jurisdiction and any adjacent related lands. State law requires general plans to address seven mandated components: circulation, conservation, housing, land use, noise, open space, and safety. In addition to those components required by State law, the Stockton General Plan also contains optional elements, including Community Design, Economic Development, District and Villages, Public Facilities and Services, Recreation and Waterways, and Youth and Education.

The Envision Stockton 2040 General Plan includes an introduction, a description of the City's land use planning framework, and four separate chapters that establish goals, policies, and actions for each given set of topics. The chapters cover all of the topics required by California State Government Code Section 65302 as well as topics of particular interest to Stockton. The General Plan structure is summarized as follows:

- **Introduction:** Describes the required elements of the General Plan and its planning context, and provides an overview of the Plan's organization.
- **Planning Framework:** Covers existing land use conditions and the policy framework, describes the Envision Stockton 2040 General Plan Update process, and presents the location, intensity, and type of future growth and development in the City and its SOI.
- **Land Use:** Provides overall land use policies for the City, including the connection between land use and transportation and utilities and other infrastructure. This chapter also incorporates the State-required Open Space and Conservation Element topics, as well as other topics important to the community, including economic development and community design.
- **Transportation:** Satisfies the State law requirement that the Transportation Element specify the general location and extent of existing and proposed major streets and other

3.10 LAND USE AND POPULATION

transportation facilities. This chapter is correlated with the Land Use chapter to provide adequate pedestrian, bicycle, motor vehicle, transit, air, and water transportation to serve both new and existing land uses.

- **Safety:** Serves as the State-required Safety Element. It provides information about risks in Stockton due to natural and human-made hazards, and contains goals, policies, and actions designed to protect the community and property from hazards. It specifically addresses risks associated with geologic and seismic hazards, flooding and storm drainage, wildland fires, and hazardous materials and waste. Based on clear community input to prioritize public safety from criminal activity, this chapter also includes policies and actions to deter crime and support law enforcement and community protection efforts.
- **Community Health:** Addresses the State-required Environmental Justice and Noise Element topics, as well as Air Quality, which is a required general plan topic regionally per the San Joaquin Valley Air Pollution Control District. This chapter also addresses public services and utilities, as well as the community-identified priorities of public health, recreation, youth and education, the local economy, and climate change and adaptation.

GENERAL PLAN LAND USE MAP

The General Plan Land Use Map portrays the ultimate uses of land in the City of Stockton through land use designations. The Land Use Map designates the Project site as Industrial, Commercial, and Open Space/Agriculture. Figure 2.0-5 in Chapter 2.0 depicts the Stockton General Plan land use designations for the Project site and the surrounding areas. The General Plan contains the following descriptions for these land uses:

Industrial (I): This designation allows for a wide variety of industrial uses, including uses with nuisance or hazardous characteristics, warehousing, construction contractors, light manufacturing, offices, Retail Sales, service businesses, public and quasi-public uses, and other similar and compatible uses. Residential uses are prohibited. The maximum FAR for industrial uses is 0.6.

Commercial (C): This designation allows for a wide variety of retail, service, and commercial recreational uses; business, medical, and professional offices; residential uses; public and quasi-public uses; and other similar and compatible uses. Community or regional commercial centers as well as freestanding commercial establishments are permitted. In addition, limited industrial uses are allowed, provided that they are indoors and compatible with surrounding uses. The maximum FAR ranges differ based on the geographic area. Outside the Greater Downtown, the maximum FAR is 0.3.

Open Space/Agriculture (OS/A): This designation allows for agriculture, parks, single-family residential units, farm worker housing, wetlands, wildlife reserves, and other similar and compatible uses and structures related to the primary use of the property for preservation of natural resources or agriculture. Lands under this designation are intended to remain unincorporated and under the jurisdiction of San Joaquin County. The minimum parcel size is 40 acres, maximum density is 1 dwelling unit per parcel, and maximum FAR is 0.01. The Open Space/Agriculture land use

designation within the Project area is currently located near the French Camp Slough, and this area would not be altered by the proposed Project.

GENERAL PLAN POLICIES

The following policies of the Envision Stockton 2040 General Plan related to land use and population are applicable to the proposed Project:

- **LU-3.1.** Ensure that exterior remodels and the siting, scale, and design of new development are compatible with surrounding and adjacent buildings, public spaces, and cultural and historic resources.
- **LU-4.1.** Encourage large-scale development proposals in appropriate locations that include significant numbers of higher-wage jobs and local revenue generation. Such development may utilize the Economic and Education Enterprise land use designation if the proposal meets all of the criteria listed under the definition of the designation.
- **LU-4.2.** Attract employment- and tax-generating businesses that support the economic diversity of the city.
- **LU-6.2.** Prioritize development and redevelopment of vacant, underutilized, and blighted infill areas.
- **LU-6.6.** Coordinate land use planning efforts among City departments and with regional agencies.
- **LU-6.7.** Enhance public participation in the planning process.

GENERAL PLAN ACTIONS

The following actions of the Envision Stockton 2040 General Plan related to land use and population are applicable to the proposed Project:

- **LU-4.1B.** Seek out and market to businesses that build on Stockton's competitive advantages and offer high- and living-wage jobs in a range of industries, such as management of companies and enterprises, finance and insurance, wholesale trade, professional and technical services, information, healthcare and social assistance, and education.
- **LU-6.6B.** Participate in the San Joaquin Council of Governments' (SJCOG) regional planning programs and coordinate City plans and programs with those of SJCOG, including the Regional Transportation Plan/Sustainable Communities Strategy, among others, and work with non-profit organizations also engaging in these planning programs.
- **LU-6.6C.** Review and update the Development Code to ensure consistency with the updated General Plan.
- **LU-6.7A.** Work with community-based organizations to develop and implement a comprehensive and accountable long-term strategy to engage the Stockton community in planning decisions.

- LU-6.7B. Require that sponsors of new development projects, especially those that require Planning Commission and/or City Council approval, have early, frequent, and meaningful communication with affected citizens and stakeholders.

Stockton Municipal Code, Title 16 – Development Code

The purpose of Title 16, Development Code, of the City’s Municipal Code is to establish the zoning districts applied to property within the City, determine how the zoning districts are applied on the Zoning Map, and provides general permit requirements for development and new land use in accordance with the Stockton General Plan.

ZONING MAP

The Zoning Map identifies zoning districts within the City at the parcel level. The Project site is zoned IL (Industrial, Light), CG (Commercial, General), and OS (Open Space). Figure 2.0-6 in Chapter 2.0 depicts the City’s zoning districts for the Project site and the surrounding areas. Below is a general description of the zoning districts within the Project site.

IL (Industrial, Limited) District: This zone is applied to areas appropriate for light manufacturing uses that may generate more nuisance impacts than acceptable in commercial zoning districts and whose operations are totally conducted indoors. Includes retail stores and ancillary office uses. The IL zoning district is consistent with the industrial land use designation of the General Plan.

CG (Commercial, General) District: This zone is applied to areas appropriate for a wide variety of general commercial uses, including retail, personal and business services; commercial recreational uses; and a mix of office, commercial, and/or residential uses. The CG zoning district is consistent with the commercial land use designation of the General Plan.

OS (Open Space) District: This zone is applied to areas of the City with open space resources, including agricultural lands, wetlands, wildlife reserves, and other sensitive natural resources; passive recreational areas such as golf courses; or natural hazards. Structural uses are limited to those which support the maintenance and/or use of the open space area. The OS zoning district is consistent with the open space and agricultural land use designations of the General Plan.

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)

The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) provides comprehensive measures for compensation and avoidance of impacts on various biological resources, including agricultural land. One of the primary goals of the SJMSCP is to preserve productive agriculture where that goal is compatible with protecting and preserving lands with biological resources and habitat. The SJMSCP is administered by the San Joaquin Council of Governments (SJCOG). The Project applicant will pay fees to SJCOG on a per-acre basis for designated agricultural lands and habitat that are converted to urban use. SJCOG will then use these funds to purchase conservation easements on agricultural and habitat lands in the region. The

purchase of conservation easements allows the landowners to retain ownership of the land and continue agricultural operations, essentially preserving such lands in perpetuity. The vast majority of the Project site is designated as Category C/Pay Zone B. This zone consists of “Agricultural Habitat Lands”, as described in Chapter 2.2 of the SJMSCP. Portions of the Project site located along French Camp Slough are designated as Category A/No Pay Zone. This zone consists of “Urban Lands”, as described in Chapter 2.2 of the SJMSCP.

The City of Stockton is a permit holder and is responsible for local implementation responsibilities including collection of fees, maintenance of implementing ordinances/resolutions and coordinating with the Joint Powers Authority (JPA) for annual reporting requirements.

3.10.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on land use and population if it will:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect;
- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

IMPACTS AND MITIGATION MEASURES

Impact 3.10-1: The proposed Project would not physically divide an established community (No Impact)

The Project site is located at the southern edge of the City of Stockton city limits and is adjacent primarily to undeveloped agricultural land to the east, south, and west, and to developed areas to the north. The Project would result in an extension of developed uses within an area of the City that currently has development uses and is planned for urban development by the City’s General Plan. The Project would provide roadways and pedestrian pathways to connect the Project site to the existing circulation system and to allow access to and from the site. Development of the Project site would not result in physical barriers, such as a highway, wall, or other division, that would divide an existing community, but would serve as an orderly extension of existing and planned development. The Project would have ***no impact*** in regards to the physical division of an established community.

Impact 3.10-2: The proposed Project would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project adopted to avoid or mitigate an environmental effect (Less than Significant)

Land use plans, policies, and regulations that govern the land uses on the Project site and have jurisdiction over the Project include Envision Stockton 2040 General Plan, Stockton Municipal Code, and the SJCMSCP. Consistency with the SJMPSCP is discussed in Impact 3.4-9 in Section 3.4, Biological Resources.

ENVISION STOCKTON 2040 GENERAL PLAN

Since general plans often contain numerous policies emphasizing differing legislative goals, a development project may be “consistent” with a general plan, taken as a whole, even though the project appears to be inconsistent or arguably inconsistent with some individual policies. (*Sequoyah Hills Homeowners Association v. City of Oakland* (1993) 23 Cal.App.4th 704, 719.) The Project is consistent with the key land use issues and development concepts of the Envision Stockton 2040 General Plan, which provide for logical growth of the City, emphasize community form, scale, and identity, encourage attractive, sustainable neighborhoods, support public transit and bicycle and pedestrian circulation, encourage housing opportunity, promote employment and economic development, encourage a mix of land uses that balance public services and fiscal sustainability, and promote access to open space.

The Project is located within the City limits and will provide employment-generating uses that will promote employment and economic development, while providing public facilities and open space. The Project is consistent with the General Plan land use policies that encourage an orderly pattern of development in the areas surrounding the Airport and encourage employment- and tax-generating businesses that support the economic diversity of the City.

When land uses are not consistent with a General Plan there are two courses of action: 1) the uses are not allowed due to the inconsistency, or 2) the land uses are changed through an amendment to the General Plan to create consistency. The land uses as proposed are consistent with the General Plan. Although the proposed SSCC Project is consistent with the site’s existing General Plan and Zoning designations, due to the location of drive entrances for surrounding developments and the alignment of the future Commerce Drive, a General Plan Amendment and Rezone of the two areas between Airport Way and the Union Pacific Railroad right-of-way is required. As seen on Figure 2.0-5 in Chapter 2.0, Project Description, these areas are currently designated Commercial and Industrial, respectively, in the Envision Stockton 2040 General Plan. The current boundaries of the designations will be modified to be consistent with the future Commerce Drive right-of-way center line. The area to the north of the Commerce Drive right-of-way centerline will be designated Commercial and the area to the south of the Commerce Drive right-of-way centerline will be designated Industrial. Figure 2.0-8 in Chapter 2.0, Project Description, shows the proposed boundary modifications to the General Plan land use designations for these two areas. Approval of the General

Plan amendment would ensure that the proposed Project would be substantially consistent with the Envision Stockton 2040 General Plan land use requirements.

Additionally, the Project is consistent with the most of the applicable General Plan policies that aim to avoid or mitigate an environmental effect. As shown in Table 3.10-2, the Project is consistent with many of the City's General Plan policies, and the Project would conflict with one policy (Policy LU-6.4) adopted to avoid or mitigate an environmental effect.

TABLE 3.10-2: GENERAL PLAN POLICY CONSISTENCY

GENERAL PLAN POLICY	PROJECT CONSISTENCY
LAND USE	
LU-3.1. Ensure that exterior remodels and the siting, scale, and design of new development are compatible with surrounding and adjacent buildings, public spaces, and cultural and historic resources	Consistent. The Project is a new development which is compatible with surrounding and adjacent buildings and public spaces. There are no known cultural or historic resources within the area. The existing development adjacent to the north of the Project site includes mainly industrial warehouses. The proposed industrial and commercial uses would be constructed in a similar form and scale as the existing warehouses to the north.
LU-4.1. Encourage large-scale development proposals in appropriate locations that include significant numbers of higher-wage jobs and local revenue generation. Such development may utilize the Economic and Education Enterprise land use designation if the proposal meets all of the criteria listed under the definition of the designation	Consistent. The proposed Project is considered large-scale and would provide jobs and local revenue for the city. The Project location is appropriate for commercial and industrial warehouse uses because it is located on land planned for industrial uses by the General Plan. Additionally, the Project area is located near existing industrial warehouses, and can utilize Airport Way, the existing rail line, and State Route (SR) 99 for the transport of goods.
LU-4.2. Attract employment- and tax-generating businesses that support the economic diversity of the city	Consistent. The proposed Project would generate employment- and tax-generating businesses which would support the economic diversity of the city.
LU-5.1. Integrate nature into the city and maintain Stockton's urban forest	Consistent. As discussed in Section 3.4, Biological Resources, the Project site contains numerous orchard trees in the residential areas, and shade trees along French Camp Slough. It may be possible for specific trees to be incorporated into the final design of the development once the more detailed engineering effort begins. For example, the proposed open space areas along French Camp Slough will result in preservation of the shade trees along the Slough. The proposed open space would also integrate nature into the Project site. Nevertheless, any Heritage Trees that cannot remain in the final design must be replaced in accordance with Chapter 16.130 of the Municipal Code if deemed applicable at the time of removal. Mitigation Measure 3.4-2 would require compliance with the Stockton Municipal Code for removal and replacement of Heritage Oak Trees.
LU-5.2. Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible	Consistent: There are no known cultural or historic resources on site which would be encroached on or destroyed by the proposed Project. Nevertheless, Section 3.5, Cultural and Tribal Resources, of this EIR includes mitigation measures to be followed should cultural resources be found on-site during construction. Natural resources areas, habitat, and agricultural lands are found on-site. Specifically, French

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development	Camp Slough, foraging and nesting habitat for birds, and row crops and orchards are located on the Project site. As noted previously, French Camp Slough would be maintained as open space as part of the proposed Project. Additionally, Section 3.4, Biological Resources, includes mitigation measures to reduce the potential impacts to special-status birds to a less-than-significant level. Although the Project would involve development of land currently used for agricultural purposes, the majority of the Project site is designated Industrial and Commercial by the General Plan and development of the site with industrial and commercial uses has been anticipated by the General Plan. Further, the Project would be subject to the City and County Right-to-Farm ordinances, which would ensure that the Project does not encroach or destroy agricultural operations in the area.
LU-5.3. Define discrete and clear city edges that preserve agriculture, open space, and scenic views	Consistent: The Project site is located in the southern portion of the City adjacent to SR 99 and the Stockton Airport. The site has been anticipated for development of industrial and other urban uses as part of the City's General Plan. As noted previously, the Project would include creation of 54 acres of open space along and surrounding the Slough in order to avoid disturbance and other urban activities. This scenic open space area would be preserved as part of the Project. However, the remaining agricultural areas on the site would be converted to urban uses as part of the Project. As discussed in Section 3.2, Agricultural Resources, of this EIR, the Envision Stockton 2040 General Plan EIR anticipated development of the Project site as part of the overall evaluation of the buildout of the City. The General Plan EIR determined that impacts associated with the conversion and loss of Important Farmland would be significant and unavoidable. According to the General Plan EIR, although the General Plan includes policies and actions that would reduce and partially offset the conversion of farmland, it designates approximately 16,160 acres of farmlands of concern under CEQA for non-agricultural uses. Because these farmland areas are located near existing urbanized areas, they may not be viable for agricultural operations due to conflicts with nearby urbanized areas. The only way to mitigate this impact would be to prohibit any development on farmland of concern. However, as noted, the General Plan identifies this area for development of industrial and commercial uses while maintaining other areas for agricultural use.
LU-6.2. Prioritize development and redevelopment of vacant, underutilized, and blighted infill areas.	Does Not Conflict. The proposed Project site is not a vacant, underutilized, or blighted infill area. However, the Project site is designated for industrial land uses in the City's General Plan. Additionally, the Project would not prevent the City from developing and/or redeveloping vacant, underutilized, or blighted infill areas of the City.
LU-6.4. Ensure that land use decisions balance travel origins and destinations in as close proximity as possible, and reduce vehicle miles traveled (VMT).	Inconsistent. The Project site is designated for industrial land uses in the City's General Plan. The employment-generating uses would be located in the southern portion of the City near existing industrial and employment uses. Impacts associated with VMT are discussed in Impact 3.13-1 in Section 3.13. As discussed, implementation of the

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	proposed Project would result in additional vehicle travel generated by the food, retail/commercial, and industrial/warehousing land uses. This would result in the average home-based work VMT per worker of 21.05 miles. This is greater than the Baseline (Existing) of 18.56 miles or Envision Stockton 2040 goal of 15.88 miles. Therefore, the Project would not reduce VMT and is not consistent with this policy.
LU-6.6. Coordinate land use planning efforts among City departments and with regional agencies	Consistent. The proposed Project is subject to CEQA review. A Notice of Preparation (NOP) to prepare an EIR was published for this Project. State and federal regulatory and resource agencies had the opportunity to provide comments based on this initial notice and will also be notified and provided the opportunity to comment during the public review period for the Draft EIR. The Project proposal and associated Draft EIR were also reviewed by various City departments.
LU-6.7. Enhance public participation in the planning process	Consistent. As noted in Response to Policy LU-6.7, the proposed Project is subject to CEQA review. A NOP to prepare an EIR was published for this Project. Additionally, a public scoping meeting was held via WebEx on October 26, 2020 to present the project description to the public and interested agencies, and to receive comments from the public and interested agencies regarding the scope of the environmental analysis to be included in the Draft EIR. State agencies, federal regulatory and resource agencies, and members of the public had the opportunity to provide comments on environmental issue areas of concern based on the initial NOP and scoping meeting and will also be notified and provided the opportunity to comment during the public review period for the Draft EIR. The Project will also be heard by the Stockton Planning Commission and City Council. Members of the public and regulatory agencies will have various opportunities to participate in the planning process for this Project.
TRANSPORTATION	
TR-1.1. Ensure that roadways safely and efficiently accommodate all modes and users, including private, commercial, and transit vehicles, as well as bicycles and pedestrians and vehicles for disabled travelers.	Consistent. As described in Section 3.13, Transportation and Circulation, the Project's transportation and circulation system is designed to accommodate access to and from Airport Way via the signalized Airport Way/Commerce Drive intersection, a grade-separated Commerce Drive/Union Pacific Railroad (UPRR) overcrossing, and pedestrian/bicycle facilities connecting each of the buildings to Commerce Drive. The Project proposes new industrial and commercial development, which would result in increased travel activity, including vehicle (cars and trucks), bicycle, pedestrian, and potentially transit trips. In order to provide access to and from the Project site, the signalized Airport Way/Commerce Drive intersection will be designed to serve all travel modes and Surface Transportation Assistance Act (STAA) vehicles. These Project-generated trips would be served by existing and planned facilities that are constructed to applicable design standards to serve these travel modes.
TR-1.2. Enhance the use and convenience of rail service for both passenger and freight movement.	Consistent. The Project proposes to potentially include rail service to up to three large parcels (parcels 2, 3, and 4) within the Project site. A potential railroad spur line would extend east from the UPRR along the Project site's northern edge providing rail access to

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	the parcels.
TR-2.1. Develop safe and interconnected bicycle and pedestrian facilities, including along “complete” streets that target multiple travel modes.	Consistent. As described in the Environmental Setting, Section 3.13, Transportation and Circulation, there is currently no existing pedestrian, bicycle, or transit service/facility within the undeveloped Project area. The Envision Stockton 2040 General Plan identifies an interconnected, hierarchical system of sidewalks, on-street bike lanes, and off-street trails for pedestrians and bicyclists that provides access to this area of the City of Stockton. The Project’s transportation and circulation system is designed to accommodate access to and from Airport Way via the signalized Airport Way/Commerce Drive intersection, a grade-separated Commerce Drive/UPRR overcrossing, and pedestrian/bicycle facilities connecting each of the buildings to Commerce Drive.
TR-2.2. Connect housing and employment development in areas with good transit access through open and inclusive processes where appropriate.	Does Not Conflict. The Project includes employment generating uses in an area of the City currently containing industrial and other employment generating uses. Transit service in the area is provided by San Joaquin Regional Transit District (RTD). There are limited transit services provided to Project site, with the closest routes, Routes 44, 91 and 510, serving Arch-Airport Road with stops approximately three miles from the Project site. Additionally, as required by Mitigation Measure 3.13-1 in Section 3.13, the Project would be required to submit a transportation demand management (TDM) Plan to the City, which would include strategies to encourage transit use and incentive the use of alternative travel modes.
TR-2.3. Utilize natural features and routes with lower traffic volumes and speeds to encourage residents to walk and wheel more frequently.	Consistent. As described in the Environmental Setting, Section 3.13, Transportation and Circulation, there is currently no existing pedestrian, bicycle, or transit service/facility within the undeveloped Project area. The Envision Stockton 2040 General Plan identifies an interconnected, hierarchical system of sidewalks, on-street bike lanes, and off-street trails for pedestrians and bicyclists that provides access to this area of the City of Stockton. Additionally, the Project would include bicycle and pedestrian facilities on-site. Further, as noted previously, the Project would include creation of 54 acres of open space along and surrounding the Slough in order to avoid disturbance and other urban activities. This scenic open space area would be preserved as part of the Project. As such, the Project has been designed to utilize the natural features on-site.
TR-3.1. Avoid widening existing roadways in an effort to preclude inducement of additional vehicle traffic.	Consistent. The Project would not require or result in the widening of any existing roadways in the Project area.
TR-3.2. Require new development and transportation projects to reduce travel demand and greenhouse gas emissions, support electric vehicle charging, and accommodate multi-passenger autonomous vehicle travel as much as feasible.	Consistent. The proposed Project would be subject to the California Building Code, which requires electric vehicle infrastructure and parking spaces. Additionally, as required by Mitigation Measure 3.13-1 in Section 3.13, the Project would be required to submit a TDM Plan to the City, which would include strategies to reduce travel demand and greenhouse gas emissions. Additionally, there are Mitigation Measures in the Air Quality and Greenhouse Gas

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	Emissions chapter that call for the proposed Project to incorporate electric-ready infrastructure and promote clean fleets. For instance, Mitigation Measure 3.3-1 requires providing electrical hook ups to the power grid, rather than use of diesel-fueled generators, for electric construction tools, such as saws, drills and compressors, and using electric tools whenever feasible.
<p>TR- 4.3. Use the threshold recommended by the California Office of Planning and Research for determining whether VMT impacts associated with land uses are considered significant under State environmental analysis requirements.</p>	<p>Consistent. Impacts associated with VMT are discussed in Impact 3.13-1 in Section 3.13. The Project was evaluated against the City's VMT guidelines. According to interim City of Stockton guidelines, a proposed Project's VMT is considered a significant impact if the associated change to the transportation system either:</p> <ul style="list-style-type: none"> • Causes an increase in Home-Based Work VMT per worker in relation to Existing (Baseline) Conditions. For the City of Stockton, an SB 743 analysis was completed in which the Citywide Average for Daily Home-Based Work VMT per worker was determined to be 18.56 miles; • The goal of the City of Stockton is to reduce the Daily Home-Based Work VMT per worker by 15 percent; thereby requiring any project to have an Average Daily Home-Based Work VMT per worker no greater than 15.78 miles. <p>As discussed, implementation of the proposed Project would result in additional vehicle travel generated by the food, retail/commercial, and industrial/warehousing land uses. This would result in the average home-based work VMT per worker of 21.05 miles. This is greater than the Baseline (Existing) of 18.56 miles or Envision Stockton 2040 goal of 15.88 miles.</p>
PUBLIC FACILITIES & SERVICES	
<p>PFS-1.1. The City shall give priority to providing services to existing urban areas in order to prevent the deterioration of existing levels-of-service.</p>	<p>Consistent. Although level of service is no longer a CEQA topic, Appendix F of this Draft EIR analyzes level of service and traffic congestion associated with the proposed Project.</p>
<p>PFS-1.5. The City shall continue to utilize developer fees, the City's public facilities fees, and other methods (i.e., grant funding and assessment districts) to finance public facility design, construction, operation, and maintenance.</p>	<p>Consistent. The Project would be subject to Section 16.72.060(C), Park Land Dedications and Fees, and Section 16.72.260, Public Facilities Fee, of the Municipal Code. These impact fees would be used by the City to finance public facility design, construction, operation, and maintenance.</p>
<p>PFS-1.4. The City shall ensure that proposed developments do not create substantial adverse impacts on existing infrastructure and that the necessary infrastructure will be in place to support the development.</p>	<p>Consistent. Impacts on utilities infrastructure (sewer, water, storm drainage, and solid waste) are discussed in Section 3.14, Utilities and Service Systems. Impacts on public services infrastructure (fire stations, police stations, and libraries) are discussed in Section 3.12, Public Services. The proposed Project includes development of the utility infrastructure required to support the development.</p>
<p>PFS-1.8. The City shall review development proposals for their impacts on infrastructure (i.e., sewer, water, fire stations, libraries, streets) and require appropriate mitigation measures if</p>	<p>Consistent. As noted in response to Policy PFS-1.4, impacts on utilities infrastructure (sewer, water, storm drainage, and solid waste) are discussed in Section 3.14, Utilities and Service Systems. Impacts on public services infrastructure (fire stations, police stations, and libraries) are discussed in Section 3.12, Public Services.</p>

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development reduces service levels.	In most cases, the Project would not result in reduced service levels. Section 3.14 includes a mitigation measure which requires the Project proponent to secure adequate wastewater treatment capacity/allocation.
PFS-1.9. During the development review process, the City shall not approve new development unless the following conditions are met: <ul style="list-style-type: none"> • The applicant can demonstrate that all necessary infrastructure will be installed or adequately financed; • Infrastructure improvements are consistent with City infrastructure plans. 	Consistent. As noted in response to Policy PFS-1.4, impacts on utilities infrastructure (sewer, water, storm drainage, and solid waste) are discussed in Section 3.14, Utilities and Service Systems. The Project would provide all necessary infrastructure required to serve the Project site. The infrastructure improvements are consistent with City infrastructure plans.
PFS-3.1: The City shall require that all new urban development is served by an adequate collection system to avoid possible contamination of groundwater from onsite wastewater disposal (septic) systems.	Consistent. As noted in response to Policy PFS-1.4, impacts on utilities infrastructure (sewer, water, storm drainage, and solid waste) are discussed in Section 3.14, Utilities and Service Systems. The Project would be served by an adequate collection system.
PFS-3.4: The City shall ensure through the development review process that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future.	Consistent. As noted in response to Policy PFS-1.4, impacts on utilities infrastructure (sewer, water, storm drainage, and solid waste) are discussed in Section 3.14, Utilities and Service Systems. The proposed infrastructure system is designed according to City utility Master Plans and will meet the capacity needs of the Project.
PFS-3.8: Prior to approval of any tentative subdivision map for a proposed residential project, the City shall formally consult with the wastewater system provider that would serve the proposed subdivision to make a factual showing or impose conditions in order to ensure an adequate wastewater removal system necessary for the proposed development. Prior to recordation of any final small lot subdivision map, or prior to City approval of any project-specific discretionary approval or entitlement required for nonresidential land uses, the City or the project applicant shall demonstrate, based on substantial evidence, the availability of a long-term, reliable wastewater collection system for the amount of development that would be authorized by the final subdivision map or	Consistent. As noted in response to Policy PFS-1.4, impacts on utilities infrastructure (sewer, water, storm drainage, and solid waste) are discussed in Section 3.14, Utilities and Service Systems. Section 3.14 includes a mitigation measure which requires the Project proponent to secure adequate wastewater treatment capacity/allocation. Treatment capacity would be available to serve the Project prior to occupancy.

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<p>project-specific discretionary nonresidential approval or entitlement. Such a demonstration shall consist of a written verification that existing treatment capacity is or will be available and that needed physical improvements for treating wastewater from the Project site will be in place prior to occupancy.</p>	
<p>PFS-4.1: The City shall require detention storage with measured release to ensure that the capacity of downstream creeks and sloughs will not be exceeded.</p> <p>To this end:</p> <ul style="list-style-type: none"> • Outflow to creeks and sloughs shall be monitored and controlled to avoid exceeding downstream channel capacities; • Storage facilities shall be coordinated and managed to prevent problems caused by timing of storage outflows. 	<p>Consistent. The Project proposes to construct two storm drain detention basins to provide flood control. The primary basin will be approximately 28 acres located within the northwest corner of the Project site, east of the UPRR right-of-way. The Project proposes to construct a storm drainage flood channel generally along the northern edge of Parcels 3, 4 and 5. The drainage channel will connect to a proposed outfall to the detention basin, generally located within the northeast area of the basin. A storm drain (ranging from 15 to 84 inches) is proposed within the proposed Commerce Drive right-of-way. The secondary basin will be approximately 13 acres, located west of the UPRR right-of-way, between the future Commerce Drive and French Camp Slough. The proposed storm drain in Commerce Drive will connect to the proposed outfall to the detention basin, generally located within the northeast area of the basin. An outfall from the basin to French Camp Slough will also be constructed (exact size and location to be determined). It is noted that the Project must obtain discharge permits from the authority/authorities that have jurisdiction over French Camp Slough.</p> <p>The Hydrologic and Hydraulic Assessment prepared for the Project included an evaluation of the proposed flood control system for the Project to determine if the proposed flood control system has sufficient capacity to both hold onsite run off and prevent offsite impacts from a 100-year flood event. The analysis was conducted under the assumption that the flood control basins would not be drained during the actual flood event. According to the Hydrologic and Hydraulic Assessment, the results of the analysis indicate that there are no offsite impacts and that the 100-year flood can be contained on site with runoff from the 10-year storm event being held in the north flood control basin (KSN, December 2020). Therefore, the Hydrologic and Hydraulic Assessment notes the applicant shall apply for a CLOMR-F based upon the effective FEMA floodplains, as required by Mitigation Measure 3.9-3.</p>
<p>PFS-4.3: Best Management Practices. The City shall require, as part of watershed drainage plans, Best Management Practices (BMPs), to reduce pollutants to the maximum extent practicable.</p> <ul style="list-style-type: none"> • As of November 25, 2003, the City shall require that all new development and 	<p>Consistent. The Project would implement BMPs during construction and operation. Mitigation Measure 3.9-1 in Section 3.9, Hydrology and Water Quality, requires the preparation of a SWPPP, and structural BMPs.</p>

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<p>redevelopment projects to comply with the post-construction Best Management Practices (BMPs) called for in the Stormwater Quality Control Criteria Plan (SWQCCP), as outlined in the City's Phase 1 Stormwater NPDES permit issued by the California Water Quality Control Board, Central Valley Region (Order No. R5-20020-0181). Also the owners, developers, and/or successors-in-interest must establish a maintenance entity acceptable to the City to provide funding for the operation, maintenance, and replacement costs of all post-construction BMPs.</p> <ul style="list-style-type: none"> • The City shall require, as part of its Storm Water NPDES Permit and ordinances, to implement the Grading Plan, Erosion Control Plan, and Pollution Prevention Plan (SWPPP) during construction activities of any improvement plans, new development and redevelopment projects for reducing pollutants to the maximum extent practicable. 	
<p>PFS-4.6: The City shall ensure through the development review process that public facilities and infrastructure are designed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing. For facilities subject to incremental sizing, the initial design shall include adequate land area and any other elements not easily expanded in the future.</p>	<p>Consistent. As noted in response to Policy PFS-1.4, impacts on utilities infrastructure (including storm drainage) are discussed in Section 3.14, Utilities and Service Systems. The proposed infrastructure system is designed to meet the capacity needs of the Project. Future replacement to achieve upsizing would not be required. The site is within the City Urban Service Area and has been included in the City's various utility Master Plans.</p>
<p>PFS-4.8: The City shall incorporate low impact development (LID) alternatives for stormwater quality control into development requirements. LID alternatives will include: (1) conserving natural areas and reducing imperviousness, (2) runoff storage, (3) hydro-modification (to mimic pre-development runoff volume and flow rate), and (4) public education.</p>	<p>Consistent. The proposed Project would implement LID measures, including conserving natural areas, providing runoff storage, and hydromodification. The Project includes ample open space area around French Camp Slough, which is a natural area in the Project site. The Project would also provide adequate runoff storage through the proposed detention basins.</p>

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PFS-5.2 The City shall continue to require recycling in public and private operations to reduce demand for solid waste disposal capacity.	Consistent. The Project would include recycling in compliance with City requirements. This would reduce the demand for solid waste disposal.
PFS-5.5 The City shall require the proper disposal and recycling of hazardous materials.	<p>Consistent. The Project would include management, use and recycling of hazardous materials in compliance with regulatory requirements. This would ensure proper disposal of hazardous materials and reduce the demand for solid waste disposal.</p> <p>As discussed in Section 3.8, Hazards and Hazardous Materials, depending on the future industrial uses on-site, the Project has the potential to routinely transport, use, or dispose of hazardous materials, and/or present a reasonably foreseeable release of hazardous materials. Any operations that involve the use of hazardous materials would be required to have the hazardous material transported, stored, used, and disposed of in compliance with local, state, and federal regulations. The San Joaquin County Department of Environmental Health is the CUPA for San Joaquin County and is responsible for the implementation of statewide programs within the City including Hazardous Materials Business Plan (HMBP) requirements, among numerous other programs. Additionally, businesses are regulated by Cal/OSHA and are therefore required to ensure employee safety. Specific requirements include identifying hazardous materials in the workplace, providing safety information to workers that handle hazardous materials, and adequately training workers. To further ensure the safety of employees and reduce the potential for accidental release of hazardous materials into the environment, the applicant must submit a HMBP to San Joaquin County Department of Environmental Health (CUPA) for review and approval prior to bringing hazardous materials onsite, as required by Mitigation Measure 3.8-3.</p>
PFS-5.6 The City shall require the recycling of construction debris.	Consistent. The Project would include construction debris recycling in compliance with City requirements.
PFS-5.7 The City shall ensure that all new development has appropriate provisions for solid waste storage, handling, and collection pickup.	Consistent. The Project would be required to provide receptacle space for solid waste storage, and the Project has been designed to allow for solid waste collection pickup consistent with City requirements.
PFS-7.5. The City shall continue to promote the use of building and site design features as a means for crime prevention and reduction.	Consistent. Project design would be reviewed by the City and Stockton Police Department for opportunities to use building and site design features as a means for crime prevention and reduction.
PFS-8.4. The City shall require new development to pay all public facility fees (PFF) as a means to provide a fair share of costs to provide fire station facilities and equipment in order to maintain the City's ISO rating of 1. Also, new development may be required to create a Community Facility District (CFD) or other funding mechanisms to pay the costs associated with the operation of a fire station.	Consistent. As noted in the response to Policy PFS-1.5, the Project would be subject to Section 16.72.060(C), Park Land Deductions and Fees, and Section 16.72.260, Public Facilities Fee, of the Municipal Code. These impact fees would be used by the City to finance public facility design, construction, operation, and maintenance.

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<p>PFS-8.6. The City shall require that new development provide adequate access for emergency vehicles, particularly firefighting equipment, as well as provide evacuation routes.</p>	<p>Consistent. As discussed in Impact 3.13-4 in Section 3.13, Transportation and Circulation, implementation of the proposed Project would not create roadway and transportation facilities that impede access for emergency response vehicles. The Airport Way/Commerce Drive intersection and internal transportation network is designed to maintain levels of accessibility for police and fire response, which ensures vehicles have the necessary access when responding to an emergency.</p> <p>The signalized Airport Way/Commerce Drive intersection will provide emergency vehicle pre-emption (EVP) capabilities to ensure emergency vehicle response times are not impeded. In addition, the internal transportation network is designed to maintain high levels of emergency vehicle accessibility and mobility, which ensures vehicles have the necessary access when responding to an emergency. Emergency vehicles arriving from Airport Way or from the secondary access point via the SR 99 frontage road will have unimpeded access to the Project site.</p>
COMMUNITY HEALTH	
<p>CH-1.1. Maintain walking and wheeling facilities and parks that are safe and accessible in all areas of Stockton.</p>	<p>Consistent. As described previously, there is currently no existing pedestrian, bicycle, or transit service/facility within the undeveloped Project area. The Envision Stockton 2040 General Plan identifies an interconnected, hierarchical system of sidewalks, on-street bike lanes, and off-street trails for pedestrians and bicyclists that provides access to this area of the City of Stockton. Additionally, the Project would include bicycle and pedestrian facilities on-site. Further, no parks are currently found on-site, but the Project would include 54 acres of open space areas. As such, the Project would create and maintain walking and wheeling facilities on-site.</p>
<p>CH-3.2. Encourage neighborhood-serving commercial uses in areas where frequently needed goods and services are not widely available, especially for those areas with no availability within a 2-mile radius.</p>	<p>Consistent. The two-mile radius around the Project site currently has limited opportunities to purchase needed goods and services. In addition to industrial uses, the SSCC Tentative Map proposes approximately 11 acres of general commercial uses located between Airport Way and the UPRR right-of-way. Similar to the industrial uses, a final Site Plan is not currently proposed; however, based on a FAR of 0.30, a maximum of 140,350 square feet of commercial land uses could be developed in this area. The Commercial designation allows for a wide variety of retail, service, and commercial recreational uses; business, medical, and professional offices; residential uses; public and quasi-public uses; and other similar and compatible uses. Community or regional commercial centers as well as freestanding commercial establishments are permitted. In addition, limited industrial uses are allowed, provided that they are indoors and compatible with surrounding uses. The possibility exists that neighborhood-serving commercial uses could be developed on-site.</p>
SAFETY	
<p>SAF-2.3. Protect the community from potential flood events.</p>	<p>Consistent. Impacts associated with potential flood events are discussed in Section 3.9, Hydrology and Water Quality, of this EIR. As discussed, a majority of the Project size is located in FEMA designated</p>

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	<p>Zone AO, where flood depths can reach one or more feet deep. The Hydrologic and Hydraulic Assessment completed for the Project included an analysis to determine potential impacts to the floodplain from placing fill to bring the finished floor elevation to three feet above highest adjacent grade. The Assessment determined that there are no offsite impacts which would cause an increase in water surface greater than 0.05 feet due to Project implementation. (KSN, December 2020). Additionally, the Hydrologic and Hydraulic Assessment also included an evaluation of the proposed flood control system for the Project to determine if the proposed flood control system has sufficient capacity to both hold onsite run off and prevent offsite impacts from a 100-year flood event. According to the Assessment, the results of the analysis indicate that there are no offsite impacts and that the 100-year flood can be contained on site with runoff from the 10-year storm event being held in the north flood control basin (KSN, December 2020). Therefore, the Hydrologic and Hydraulic Assessment notes the applicant shall apply for a CLOMR-F based upon the effective FEMA floodplains, as required by Mitigation Measure 3.9-3. With implementation of this mitigation measure, all potential flood impacts would be less than significant.</p>
SAF-2.4. Minimize risks to the community from flooding through appropriate siting and protection of structures and occupants.	Consistent. See Response to Policy SAF-2.3 above.
SAF-2.5. Protect the community from health hazards and annoyance associated with excessive noise levels.	Consistent. All impacts associated with excessive noise levels were determined to be less than significant or less than significant with mitigation. See Section 3.11, Noise, for the complete discussions.
SAF-2.6. Minimize the risk to city residents and property associated with then transport, distribution, use, and storage of hazardous materials.	Consistent. As discussed in Section 3.8, Hazards and Hazardous Materials, depending on the future industrial uses on-site, the Project has the potential to routinely transport, use, or dispose of hazardous materials, and/or present a reasonably foreseeable release of hazardous materials. Any operations that involve the use of hazardous materials would be required to have the hazardous material transported, stored, used, and disposed of in compliance with local, state, and federal regulations. The San Joaquin County Department of Environmental Health is the CUPA for San Joaquin County and is responsible for the implementation of statewide programs within the City including HMBP requirements, among numerous other programs. Additionally, businesses are regulated by Cal/OSHA and are therefore required to ensure employee safety. Specific requirements include identifying hazardous materials in the workplace, providing safety information to workers that handle hazardous materials, and adequately training workers. To further ensure the safety of employees and reduce the potential for accidental release of hazardous materials into the environment, the applicant must submit a HMBP to San Joaquin County Department of Environmental Health (CUPA) for review and approval prior to bringing hazardous materials onsite, as required by Mitigation Measure 3.8-3.
SAF-3.2. Protect the availability of	Consistent. This issue is addressed in Section 3.8 (Hydrology and

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<i>GENERAL PLAN POLICY</i>	<i>PROJECT CONSISTENCY</i>
clean potable water from groundwater sources.	Water Quality) of the Draft EIR. Impacts associated with groundwater depletion, interference with groundwater recharge, and conflicts with groundwater management plans were determined to be less than significant.
SAF-4.1. Reduce air impacts from mobile and stationary sources of air pollution.	Consistent. As discussed in Section 3.3, Air Quality, the SJVAPCD GAMAQI was used to determine air quality impacts resulting from the Project. The proposed Project would comply with pre-existing requisite federal, State, SJVAPCD, and other local regulations and requirements, as well as implement the mitigation measures provided by the SJVAPCD for construction-related PM ₁₀ emissions, including mitigation measures identified in Section 3.3. Prior to the approval of individual phases of development (i.e. final maps, improvement plans, site plan review, etc.), each project applicant shall coordinate with the SJVAPCD to ensure compliance with Rule 9510 for both operational and construction emissions. If the SJVAPCD criteria pollutant thresholds for an individual project is exceeded, the project applicant shall develop a reasonably feasible offsite mitigation strategy to reduce long-term air quality impacts to below the applicable SJVAPCD thresholds of significance. Nevertheless, the Project's impacts related to criteria pollutant increases were determined to be significant and unavoidable.
SAF-4.2. Encourage major employers to participate in a transportation demand management program (TDM) that reduces vehicle trips through approaches such as carpooling, vanpooling, shuttles, car-sharing, bike-sharing, end-of-trip facilities like showers and bicycle parking, subscription bus service, transit subsidies, preferential parking, and telecommuting.	Consistent. As discussed in Section 3.3, Air Quality, the project includes Mitigation Measure 3.1-1 which requires the project applicant to develop a reasonably feasible offsite mitigation strategy to reduce long-term air quality impacts to below the applicable SJVAPCD thresholds of significance. Examples of off-site mitigation strategies may include (but are not limited to) transportation demand management (TDM) measures and/or financial incentives for project employees to utilize alternative transportation options such as buses, bicycles, or electric vehicles. This measure, along with other project characteristics, measures, and conditions, are intended to ensure consistency with this and other policies.

SOURCE: DE NOVO PLANNING GROUP, 2021.

Overall, the proposed Project would have a **less than significant** impact relative to the General Plan.

STOCKTON ZONING CODE

The Stockton Zoning Code implements the General Plan. The Project site is zoned IL (Industrial, Light), CG (Commercial, General), and OS (Open Space). Similar to the above, although the proposed Project is consistent with the site's existing Zoning designations, due to limitations caused by the floodway along French Camp Slough and the location of drive entrances for surrounding developments, the alignment of the future Commerce Drive requires a Rezone of the two areas between Airport Way and the Union Pacific Railroad right-of-way. These areas are currently zoned CG and IL, respectively. The current boundaries of the designations will be modified to be consistent with the future Commerce Drive right-of-way center line. The area to the north of the Commerce Drive right-of-way centerline will be zoned CG and the area to the south of the Commerce Drive

right-of-way centerline will be zoned IL. Figure 2.0-9 shows the proposed boundary modifications to the Zoning districts for these two areas.

These proposed zone changes would ensure that zoning would be consistent with the proposed General Plan designations within the Project site. The zoning ordinance establishes permitted uses, development densities and intensities, and development standards for each zone to ensure that public health, safety, and general welfare are protected, consistent with the purpose of the Zoning Code. All existing City development standards and zoning requirements for the proposed zoning are applicable to any activities on the Project site.

The proposed commercial and industrial uses are consistent with the Zoning Code. The IL zone is applied to areas appropriate for light manufacturing uses that may generate more nuisance impacts than acceptable in commercial zoning districts and whose operations are totally conducted indoors and includes retail stores and ancillary office uses. The CG zone is applied to areas appropriate for a wide variety of general commercial uses, including retail, personal and business services; commercial recreational uses; and a mix of office, commercial, and/or residential uses. The proposed commercial and industrial uses would be consistent with the allowed uses for the IL and CG zones. Additionally, the proposed FARs for the industrial and commercial uses are within the allowed intensity for the IL and CG zones.

The City will review each component of the proposed Project as plans (improvement plans, building plans, site plans, etc.) are submitted for final approval to ensure that they are consistent with the City's Zoning ordinance. Approval of the zone change would ensure that the proposed Project would be consistent with the Zoning Code and will have a ***less than significant*** impact relative to this topic.

CONCLUSION

In conclusion, implementation of the proposed Project will have a ***less than significant*** impact relative to this topic.

Impact 3.10-3: The proposed Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) (Less than Significant)

Section 15126.2(d) of the CEQA Guidelines requires that an EIR evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by the CEQA Guidelines as:

The way in which a proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth...It is not assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.

Based on the CEQA Guidelines, growth inducement is any growth that exceeds planned growth of an area and results in new development that would not have taken place without implementation of the project. A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project, for example, involved construction of new housing. A project would have indirect growth inducement potential if it established substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand (*Napa Citizens for Honest Government v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342). Similarly, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. A project providing an increased water supply or wastewater treatment/collection in an area where this service historically limited growth could be considered growth-inducing.

The State CEQA Guidelines further explain that the environmental effects of induced growth are considered indirect impacts of the proposed action. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on other community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans provide for land use development patterns and growth policies that allow for the orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service, and solid waste service.

COMPONENTS OF GROWTH

The timing, magnitude, and location of land development and population growth in a region are based on various interrelated land use and economic variables. Key variables include regional economic trends, market demand for residential and non-residential uses, land availability and cost, the availability and quality of transportation facilities and public services, proximity to employment centers, the supply and cost of housing, and regulatory policies or conditions. Since the general plan of a community defines the location, type, and intensity of growth, it is the primary means of regulating development and growth in California.

GROWTH EFFECTS OF THE PROJECT

Direct Population Growth: According to the Department of Finance population estimates for the year 2020, the population in Stockton is 318,522 people. The proposed Project would include the development of approximately 422-acres of land which will include: industrial, commercial, open

space, public facilities, and public roadway right-of-way land uses. These uses would generate additional employment opportunities. The additional employees may come from Stockton or surrounding communities. The Project would not directly introduce new residents to the City as no housing is proposed as part of the Project. It is noted, however, that some portion of the proposed Project employees would become Stockton residents.

The proposed Project would not include upsizing of offsite infrastructure or roadways. The installation and sizing of new infrastructure would be limited to the needs of the proposed use. Additionally, the Project site is located in the City limits and has City land use designations of Industrial, Commercial, and Open Space/Agriculture; therefore, the employment growth associated with the proposed Project was considered as part of the City's General Plan and associated EIR process. The proposed Project would not induce substantial population growth in an area, either directly or indirectly.

As discussed above, although the proposed Project is consistent with the site's existing General Plan designations, due to limitations caused by the floodway along French Camp Slough and the location of drive entrances for surrounding developments, the alignment of the future Commerce Drive requires a General Plan Amendment of the two areas between Airport Way and the Union Pacific Railroad right-of-way.

The proposed Project would not result in direct population growth beyond the City's capacity that is planned in the General Plan.

Indirect Population Growth: As described above, projects that include employment-generating uses have the potential to result in indirect population growth through the creation of jobs or the extension of infrastructure into areas that were not previously served. Implementation of the Project would provide job growth to the area at the proposed industrial and commercial areas. It is anticipated that local employment would be increased to provide administrative, management, labor services. The proposed Project is expected to require approximately 3,200 new jobs (2,880 industrial, 130 food and 190 retail) to the southern part of the City, calculated using the Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition, consistent with the Traffic Study prepared for the proposed Project (Fehr & Peers, 2021). It is anticipated that the employment growth would be met both by existing residents and through the attraction of new residents. The Project would establish a variety of business opportunities that can support the skilled and educated workforce of Stockton and the local area. Estimating the number of these future employees who would relocate to the City would be highly speculative, because many factors influence personal housing location decisions (i.e., family income levels and the cost and availability of suitable housing in the local area). Thus, the number of new employees who may relocate to the City to fill the newly created positions is unknown.

According to the City's General Plan EIR, the 2040 horizon-year projection for the General Plan includes the following:

3.10 LAND USE AND POPULATION

- 40,900 new dwelling units
- 132,200 new residents
- 63,300 new jobs
- 13.8 million square feet of new commercial space and office space
- 35.6 million square feet of new industrial space

By comparison, SJCOG projects the following for the City of Stockton between 2015 and 2040:

- 41,030 new dwelling units
- 122,708 new residents
- 39,754 new jobs

The employment-generating land uses proposed by the Project would be within the growth projections anticipated and analyzed in the General Plan EIR. Overall, the proposed Project is not anticipated to exceed the planned growth (directly or indirectly) in the area beyond what is anticipated in the City's General Plan or regional growth projections.

CONCLUSION

While the proposed Project will result in employment growth, it is not anticipated to significantly induce growth. Implementation of the proposed Project will have a ***less than significant*** impact relative to this topic.

This section provides a general description of the existing noise sources in the Project vicinity, a discussion of the regulatory setting, and identifies potential noise impacts associated with the proposed Project. Project impacts are evaluated relative to applicable noise level criteria and to the existing ambient noise environment. Mitigation measures have been identified for significant noise-related impacts. This section is based in part on the following documents, reports and studies:

- *Envision Stockton 2040 General Plan* (City of Stockton, December 2018);
- *Envision Stockton 2040 General Plan Update Draft Environmental Impact Report* (City of Stockton, June 2018); and
- *Environmental Noise Assessment, South Stockton Commerce Center, City of Stockton, California* (Saxelby Acoustics, 2021).

There were no comments received during the public review period or scoping meeting for the Notice of Preparation regarding this topic.

3.11.1 ENVIRONMENTAL SETTING

KEY TERMS

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared.
CNEL	Community noise equivalent level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
L_(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L ₅₀ is the sound level exceeded 50 percent of the time during the one hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.

Noise	Unwanted sound.
SEL	Sound exposure levels. A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event.

FUNDAMENTALS OF ACOUSTICS

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn} , and shows very good correlation with community response to noise.

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. CNEL is similar to L_{dn} , but includes a +5 dB penalty for evening noise. Table 3.11-1 lists several examples of the noise levels associated with common situations.

TABLE 3.11-1: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	NOISE LEVEL (dBA)	COMMON INDOOR ACTIVITIES
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. SEPTEMBER 2013.

EFFECTS OF NOISE ON PEOPLE

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less

acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a 1 dBA change cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING NOISE LEVELS

Existing and Surrounding Land Uses

In the vicinity of the Project site, surrounding land uses include existing residential and industrial uses. Residential uses are located to the southwest of the Project site along South Airport Way and French Camp Road. These residential land uses are located outside the boundaries of the City of Stockton and within the boundaries of San Joaquin County. Industrial uses are located directly north of the Project site. Land to the east and south of the Project site is occupied by agricultural uses.

Existing Ambient Noise Levels

To quantify the existing ambient noise environment in the Project vicinity, a continuous (24-hour) noise level measurement was conducted near residential receptors adjacent to the Project site on July 8, 2020. Short term noise level measurements were conducted at two locations on the eastern Project boundary on July 9, 2020. The noise measurement locations are shown on Figure 3.11-1. The noise level measurement survey results are provided in Table 3.11-2. Appendix B of Appendix E shows the complete results of the continuous noise monitoring at sites LT-1, ST-1, and ST-2.

TABLE 3.11-2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

SITE	LOCATION	L _{DN}	AVERAGE MEASURED HOURLY NOISE LEVELS, dB					
			DAYTIME (7AM-10PM)			NIGHTTIME (10PM-7AM)		
			L _{EQ}	L ₅₀	L _{MAX}	L _{EQ}	L ₅₀	L _{MAX}
CONTINUOUS (24-HOUR) NOISE LEVEL MEASUREMENTS								
LT-1	West of site	64	59	56	72	58	52	70
SHORT-TERM NOISE LEVEL MEASUREMENTS								
ST-1	Northeast corner of site	N/A	73	71	81	N/A	N/A	N/A
ST-2	Southeast corner of site	N/A	66	65	73	N/A	N/A	N/A

SOURCE: SAXELBY ACOUSTICS, 2020.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value (L_{max}) represents the highest noise level measured during an interval. The average value (L_{eq}) represents the energy average of all of the noise measured during an interval. The median value (L_{50}) represents the sound level exceeded 50 percent of the time during an interval.

Larson Davis Laboratories (LDL) Model 820 and 831 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

EXISTING ROADWAY NOISE LEVELS

To predict existing noise levels due to traffic, the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calvenio reference noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. While the newer FHWA traffic noise model (TNM 3.0) is required for use on federally funded highway projects, the FHWA RD-77-108 model is still widely used in the industry and recognized as an accurate screening tool, typically resulting in slight over-predictions in traffic noise levels at typical receptor setback distances.

Traffic volumes for existing conditions were obtained from the traffic data prepared for the Project (Fehr & Peers, 2020). Vehicle speeds on the local area roadways were estimated from field observations.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each Project-area roadway segment. Table 3.11-3 shows the existing traffic noise levels in terms of L_{dn} at closest sensitive receptors along each roadway segment. A complete listing of the FHWA Model input data is contained in Appendix C of Appendix E.

TABLE 3.11-3: EXISTING TRAFFIC NOISE LEVELS AND DISTANCES TO CONTOURS

ROADWAY	SEGMENT	EXTERIOR TRAFFIC NOISE LEVEL, DB L_{DN}
Airport Way	Commerce Dr. to French Camp Rd.	71.2
Airport Way	French Camp Rd. to Roth Rd.	73.6
Airport Way	Roth Rd. to Lathrop Rd.	69.8
Airport Way	Performance Dr. to Arch Rd.	70.5
French Camp Rd.	Airport Way to Ash St.	68.6
French Camp Rd.	Airport Way to Union St.	71.9
French Camp Rd.	Union St. and Southbound [SB] SR 99 Ramps	69.9
Roth Rd.	Airport Way to McKinley Ave.	69.0

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS AND SAXELBY ACOUSTICS, 2020.

3.11.2 REGULATORY SETTING

FEDERAL

There are no federal regulations related to noise that apply to the proposed Project.

STATE

California Environmental Quality Act

The California Environmental Quality Act (CEQA) Guidelines, Appendix G, indicate that a significant noise impact may occur if a project exposes persons to noise or vibration levels in excess of local general plans or noise ordinance standards, or cause a substantial permanent or temporary increase in ambient noise levels. CEQA standards are discussed more below under the Thresholds of Significance section.

LOCAL

Envision Stockton 2040 General Plan

Guidelines for the acceptability of noise have been developed by the Environmental Protection Agency and adapted by the California Office of Noise Control as planning tools for use by local government in California. These are reflected in the Office of Noise Control's "Guidelines for the Preparation and Content of Noise Elements of the General Plan" (1976). While cities, counties and other agencies are free to adopt their own standards, most general plans incorporate these standards or a modified version of them. The Office of Noise Control guidelines recognize that a more restrictive standard could be appropriate under special circumstances such as quiet suburban or rural settings. The City of Stockton has incorporated the Office of Noise Control standards in Table 5-1 of the Safety Element in the Stockton General Plan 2040.

An exterior noise environment of 50 to 60 dBA L_{dn} or CNEL is "normally acceptable" for residential uses, and noise levels of up to 70 dBA L_{dn} or CNEL are "conditionally acceptable." For other sensitive land uses such as schools, libraries, churches, hospitals and the like, an exterior noise environment of up to 70 dBA is considered "normally acceptable." Commercial, industrial and recreational uses are substantially less sensitive to noise with industrial uses being considered "normally acceptable" in environments up to 70 dBA L_{dn} and "conditionally acceptable" up to 80 dBA L_{dn} . Table 5-1 also provides specific guidance for assessing increases in ambient noise as follows: "If existing noise standards are currently exceeded, a proposed project shall not incrementally increase noise levels by more than 3 dBA."

City of Stockton Municipal Code

The City of Stockton Municipal Code Chapter 16, Development Code, contains performance standards for non-transportation noise sources, as shown in Table 3.11-4.

TABLE 3.11-4: STOCKTON MUNICIPAL CODE NOISE STANDARDS FOR NON-TRANSPORTATION NOISE

NOISE LEVEL DESCRIPTOR	MAXIMUM ACCEPTABLE NOISE LEVEL	
	DAYTIME (7 A.M. – 10 P.M.)	NIGHTTIME (10 P.M. – 7 A.M.)
Hourly L_{eq} , dBA	55	45
Maximum Level (L_{max}), dBA	75	65

NOTE: * EACH OF THE NOISE LEVEL STANDARDS SPECIFIED ABOVE SHALL BE REDUCED BY 5 dBA FOR SIMPLE TONE, NOISE CONSISTING PRIMARILY OF SPEECH OR MUSIC, OR RECURRING IMPULSIVE NOISES.

SOURCE: STOCKTON MUNICIPAL CODE, CHAPTER 16.

Additionally, Section 16.60.030, Activities Deemed Violations of this Division, outlines construction noise and loading and unloading operational noise activities which violate the noise ordinance:

16.60.030(A) – Construction Noise. Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work between the hours of 10:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities.

16.60.030(B) – Loading and Unloading Operations. Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects on private property between the hours of 10:00 p.m. and 7:00 a.m. in a manner to cause a noise disturbance.

San Joaquin County General Plan

Table PHS-2 of the San Joaquin County 2035 General Plan establishes an acceptable exterior noise level standard of 65 dBA L_{dn} and an interior noise level standard of 45 dBA L_{dn} for residential uses next to transportation noise sources. For non-transportation noise sources, the General Plan establishes the standards for sensitive uses. See Table 3.11-5. These standards are similar to the City's standards shown in Table 3.11-4 but are 5 dBA lower than the City's standards for daytime hours.

TABLE 3.11-5: SAN JOAQUIN COUNTY GENERAL PLAN NON-TRANSPORTATION NOISE STANDARDS

NOISE LEVEL DESCRIPTOR	OUTDOOR ACTIVITY AREAS ¹	OUTDOOR ACTIVITY AREAS ¹
	DAYTIME ² (7 A.M. TO 10 P.M.)	NIGHTTIME ² (10 P.M. TO 7 A.M.)
Hourly equivalent sound level (L_{eq}), dB	50	45
Maximum sound level (L_{max}), dB	70	65

NOTES: THESE STANDARDS APPLY TO NEW OR EXISTING RESIDENTIAL AREAS AFFECTED BY NEW OR EXISTING NON-TRANSPORTATION SOURCES.

¹ WHERE THE LOCATION OF OUTDOOR ACTIVITY AREAS IS UNKNOWN OR IS NOT APPLICABLE, THE NOISE STANDARD SHALL BE APPLIED AT THE PROPERTY LINE OF THE RECEIVING LAND USE. WHEN DETERMINING THE EFFECTIVENESS OF NOISE MITIGATION MEASURES, THE STANDARDS SHALL BE APPLIED ON THE RECEIVING SIDE OF NOISE BARRIERS OR OTHER PROPERTY LINE NOISE MITIGATION MEASURES.

² REFER TO MOUNTAIN HOUSE MASTER PLAN, TABLE 11.2, EXTERIOR NOISE STANDARDS FOR NOISE-SENSITIVE USES AFFECTED BY NON-TRANSPORTATION NOISE SOURCES, PAGE 11.12, FOR MOUNTAIN HOUSE NOISE STANDARDS.

³ EACH OF THE NOISE LEVEL STANDARDS SPECIFIED SHALL BE REDUCED BY 5 dB FOR IMPULSIVE NOISE, SINGLE TONE NOISE, OR NOISE CONSISTING PRIMARILY OF SPEECH OR MUSIC.

SOURCE: SAN JOAQUIN COUNTY GENERAL PLAN.

San Joaquin County Development Regulations

The San Joaquin County Development Regulations, Section 9-1025.9(b) establishes land use noise level standards for new non-transportation or “stationary” noise sources, as outlined below that would be applicable to the proposed Project.

9-1025.9(B) – STATIONARY NOISE SOURCES.

Proposed projects that will create new stationary noise sources shall be required to mitigate the noise levels from these stationary noise sources so as not to exceed the noise level standards specified in Table 9-1025.9(b), Part II (Table 3.11-6).

TABLE 3.11-6: EXISTING TRAFFIC NOISE LEVELS AND DISTANCES TO CONTOURS

NOISE LEVEL DESCRIPTOR	OUTDOOR ACTIVITY AREAS ¹ DAYTIME ² (7 A.M. TO 10 P.M.)	OUTDOOR ACTIVITY AREAS ¹ NIGHTTIME ² (10 P.M. TO 7 A.M.)
Hourly equivalent sound level (L_{eq}), dB	50	45
Maximum sound level (L_{max}), dB	70	65

NOTES: ¹WHERE THE LOCATION OF OUTDOOR ACTIVITY AREAS IS UNKNOWN OR IS NOT APPLICABLE, THE NOISE STANDARD SHALL BE APPLIED AT THE PROPERTY LINE OF THE RECEIVING LAND USE. WHEN DETERMINING THE EFFECTIVENESS OF NOISE MITIGATION MEASURES, THE STANDARDS SHALL BE APPLIED ON THE RECEIVING SIDE OF NOISE BARRIERS OR OTHER PROPERTY LINE NOISE MITIGATION MEASURES.

²EACH OF THE NOISE LEVEL STANDARDS SPECIFIED SHALL BE REDUCED BY 5 DB FOR IMPULSIVE NOISE, SINGLE TONE NOISE, OR NOISE CONSISTING PRIMARILY OF SPEECH OR MUSIC.

(ORD. 3675; ORD. 4036 § 2(PART), 1999)

SOURCE: SAN JOAQUIN COUNTY DEVELOPMENT REGULATIONS.

VIBRATION STANDARDS

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person’s perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The City of Stockton does not have specific policies pertaining to vibration levels. However, Stockton Municipal Code Section 16.32.100 includes qualitative benchmarks for reducing vibration effects within Stockton. Land uses that generate vibrations may not generate ground vibration that is perceptible without instruments by the average person at any point along or beyond the property line of the parcel containing the activities. Such uses also may not generate vibrations that cause discomfort or annoyance to reasonable persons of normal sensitivity or that endangers the comfort, repose, health, or peace of residents whose property abuts the use. Vibrations from temporary

construction and demolition activities are exempt from the provisions of this section, as are vehicles that leave the subject parcel (e.g., trucks, trains, and aircraft).

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 3.11-7 indicates that the threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v). A threshold of 0.20 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE 3.11-7: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

<i>P.P.V.</i>		<i>HUMAN REACTION</i>	<i>EFFECT ON BUILDINGS</i>
<i>MM/SEC.</i>	<i>IN./SEC.</i>		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage.

SOURCE: CALTRANS. TRANSPORTATION RELATED EARTHBORE VIBRATIONS. TAV-02-01-R9601 FEBRUARY 20, 2002.

3.11.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the Project will have a significant impact related to noise if it will result in:

- Generation of a temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generation of excessive groundborne vibration or groundborne noise levels; and/or
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Determination of a Significant Increase in Noise Levels

TEMPORARY CONSTRUCTION NOISE IMPACTS

With temporary noise impacts (construction), identification of “substantial increases” depends upon the duration of the impact, the temporal daily nature of the impact, and the absolute change in decibel levels. Per the City of Stockton noise ordinance, construction activities operating between 10 p.m. and 7 a.m. which create a noise disturbance at the property boundary of a residence are prohibited and would be considered a significant impact. Per the County of San Joaquin Municipal Code, construction noise is prohibited between the hours of 9:00 p.m. and 6:00 a.m. any day and would be considered a significant impact.

OPERATIONAL IMPACTS

The noise standards applicable to the Project include the relevant portions of the City of Stockton and County of San Joaquin General Plan and Municipal Code described in the Regulatory Setting section above (Section 3.11.2), and the following standards. Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible,
- A 5-dB change is clearly perceptible, and
- A 10-dB change is perceived as being twice or half as loud.

Another means of determining a potential noise impact is Table 5-1 of the Stockton General Plan 2040 Safety Element. Table 5-1 provides specific guidance for assessing increases in ambient noise as follows: “If existing noise standards are currently exceeded, a proposed project shall not incrementally increase noise levels by more than 3 dBA.” It should be noted that the California Department of Transportation assumes a 12 dBA increase is significant. Therefore, use of the 3 dBA test is considered to be conservative relative to the expected reaction from persons affected by the noise increase.

IMPACTS AND MITIGATION MEASURES

Impact 3.11-1: The proposed Project has the potential to generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less than Significant with Mitigation)

Traffic Noise Environment at Off-Site Receptors with and without the Project

OFF-SITE TRAFFIC NOISE IMPACT ASSESSMENT METHODOLOGY

Implementation of the proposed Project would result in an increase in daily traffic volumes on the local roadway network, and consequently, an increase in noise levels from traffic sources along affected segments. Tables 3.11-8 and 3.11-9 show the predicted traffic noise level increases on the local roadway network for Existing, Existing Plus Project, Cumulative No Project, and Cumulative Plus Project conditions. Appendix C of Appendix E provides the complete inputs and results of the FHWA traffic noise modeling.

TABLE 3.11-8: EXISTING AND EXISTING PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	APPROX. RECEPTOR DISTANCE	NOISE LEVELS (L_{DN} , dB) AT NEAREST SENSITIVE RECEPTORS				
			EXISTING	EXISTING + PROJECT	CHANGE	CRITERIA	SIGNIFICANT?
Airport Wy.	Commerce Dr. to French Camp Rd.	80	71.2	75.3	4.1	+ 3 dB	Yes
Airport Wy.	French Camp Rd. to Roth Rd.	45	73.6	77.0	3.4	+ 3 dB	Yes
Airport Wy.	Roth Rd. to Lathrop Rd.	75	69.8	71.0	1.2	+ 3 dB	No
Airport Wy.	Performance Dr. to Arch Rd.	90	70.5	75.1	4.6	+ 3 dB	Yes
French Camp Rd.	Airport Wy. To Ash St.	45	68.6	69.5	1.0	+ 3 dB	No
French Camp Rd.	Airport Wy. To Union St.	60	71.9	73.11	1.8	+ 3 dB	No
French Camp Rd.	Union St. and SB SR 99 Ramps	65	69.9	72.3	2.4	+ 3 dB	No
Roth Rd.	Airport Wy. To McKinley Ave.	75	69.0	71.2	2.2	+ 3 dB	No

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS AND SAXELBY ACOUSTICS. 2020.

TABLE 3.11-9: CUMULATIVE AND CUMULATIVE PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	APPROX. RECEPTOR DISTANCE	NOISE LEVELS (L_{DN} , dB) AT NEAREST SENSITIVE RECEPTORS				
			CUMULATIVE	CUMULATIVE + PROJECT	CHANGE	CRITERIA	SIGNIFICANT?
Airport Wy.	Commerce Dr. to French Camp Rd.	80	75.8	77.6	1.8	+ 3 dB	No
Airport Wy.	French Camp Rd. to Roth Rd.	45	79.7	80.8	1.1	+ 3 dB	No
Airport Wy.	Roth Rd. to Lathrop Rd.	75	74.9	75.4	0.5	+ 3 dB	No
Airport Wy.	Performance Dr. to Arch Rd.	90	77.0	78.6	1.6	+ 3 dB	No
French Camp Rd.	Airport Wy. To Ash St.	45	74.6	74.9	0.3	+ 3 dB	No
French Camp Rd.	Airport Wy. To Union St.	60	77.6	78.1	0.5	+ 3 dB	No
French Camp Rd.	Union St. and SB SR 99 Ramps	65	76.2	76.8	0.6	+ 3 dB	No
Roth Rd.	Airport Wy. To McKinley Ave.	75	72.5	73.5	1.0	+ 3 dB	No

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS AND SAXELBY ACOUSTICS. 2020.

Project-Generated Non-Transportation Noise Environment at Off-Site Receptors

The primary non-transportation noise sources associated with the proposed Project are on-site parking lot circulation and the proposed loading docks. In order to evaluate these noise sources at the nearest sensitive receptors, Saxelby Acoustics used the SoundPLAN noise prediction model to generate noise level predictions according to the assumptions outlined below.

The SoundPLAN noise prediction model was used to plot noise contours and to calculate noise levels at the sensitive receptors located around the Project site. Inputs to the SoundPLAN model included ground topography and ground type, noise source locations and heights, receiver locations, and sound power level data. These predictions are made in accordance with International Organization for Standardization (ISO) standard 9613-2:1996 (Acoustics – Attenuation of sound during propagation outdoors).

It should be noted that sound power is a measure of the total acoustic energy emitted by a noise source and is irrespective of distance from the source. Sound power is input into the SoundPLAN model as a representation of the total acoustic energy emitted by a specific noise source. Sound power levels in this report are A-weighted decibel levels, noted as “dBA, PWL” per industry standards. The model then corrects for the many factors (i.e., distance, terrain shielding, atmospheric absorption, etc.) which affect sound propagation from the noise source to the receiver location.

LOADING DOCK NOISE GENERATION

To determine typical noise levels associated with the proposed loading docks, noise level measurement data from the Clearlake Wal-Mart store was used. The noise level measurements were conducted at a distance of 100 feet from the center of the two-bay loading dock and circulation area. Activities during the peak hour of loading dock activities included truck arrival/departures, truck idling, truck backing, air brake release, and operation of truck-mounted refrigeration units.

The results of the loading dock noise measurements indicate that a busy hour generated an average noise level of 61 dBA L_{eq} at a distance of 100 feet from the center of the loading dock truck maneuvering lanes. This analysis conservatively assumes that 50 percent of all proposed loading docks would operate at this level of activity in a busy hour during daytime (7:00 a.m. to 10:00 p.m.) and 25 percent of all proposed loading docks would operate at this level during nighttime (10:00 p.m. to 7:00 a.m.).

PARKING LOT CIRCULATION

Based upon the Project traffic study, the peak hour trips for the Project would be 2,301 autos and 290 tractor-trailers. Based upon noise measurements conducted of vehicle movements in parking lots, the sound exposure level (SEL) for a single passenger vehicle is 71 dBA at a distance of 50 feet while the SEL of a tractor-trailer is 85 dBA at the same distance.

Saxelby Acoustics used the SoundPLAN noise model to calculate noise levels at the nearest sensitive receptors. Input data included the loading dock and parking lot noise generation, as discussed above. Figure 3.11-2 shows the results of this analysis for the site layout in terms of the daytime (7:00 a.m. to 10:00 p.m.) peak hour average (L_{eq}). Nighttime (10:00 p.m. to 7:00 a.m.) peak hour average noise levels (L_{eq}) are shown on Figure 3.11-3.

Figure 3.11-4 shows the results of this analysis in terms of the peak hour maximum noise levels (L_{max}). Due to the nature of loading dock operation and parking lot circulation, the maximum noise levels are the same for both daytime and nighttime.

On-Site Aircraft Noise Environment

The proposed Project is located approximately 850 feet from the runway of the Stockton Metropolitan Airport. The Stockton Metropolitan Airport is a county-owned and operated joint civil-military airport. Noise contours for the Stockton Airport were published by San Joaquin County in the Airport Land Use Compatibility Plan (ALUCP). The noise contours and proposed Project boundaries are reproduced in Figure 3.11-5.

As shown in Figure 3.11-5, the proposed Project site is projected to be exposed to noise levels between 65 and 70 dBA CNEL by the year 2038.

Construction Noise Environment

During the construction of the proposed Project, noise from construction activities would temporarily add to the noise environment in the Project vicinity. As shown in Table 3.11-10, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE 3.11-10: CONSTRUCTION EQUIPMENT NOISE

<i>EQUIPMENT</i>	<i>QUANTITY</i>
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

SOURCE: ROADWAY CONSTRUCTION NOISE MODEL USER'S GUIDE. FEDERAL HIGHWAY ADMINISTRATION. FHWA-HEP-05-054. JANUARY 2006.

Construction Vibration Environment

The primary vibration-generating activities would be grading, utilities placement, and parking lot construction. Table 3.11-11 shows the typical vibration levels produced by construction equipment.

TABLE 3.11-11: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

TYPE OF EQUIPMENT	P.P.V. AT 25 FEET (INCHES/SECOND)	P.P.V. AT 50 FEET (INCHES/SECOND)	P.P.V. AT 100 FEET (INCHES/SECOND)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

SOURCE: TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT GUIDELINES. FEDERAL TRANSIT ADMINISTRATION. MAY 2006.

INCREASED TRAFFIC NOISE LEVELS AT EXISTING RECEPTORS

As shown in Tables 3.11-8 and 3.11-9, some noise-sensitive receptors located along the Project area roadways are currently exposed to exterior traffic noise levels exceeding the City of Stockton 60 dB L_{dn} exterior noise level standard for residential uses, as well as the San Joaquin County 65 dBA L_{dn} exterior noise standard. These receptors would continue to experience elevated exterior noise levels with implementation of the proposed Project. For example, under Existing conditions, existing sensitive receptors located adjacent to the Project area roadways currently experience exterior noise level of 68.6 to 73.6 dB L_{dn} . This exceeds the City's 60 dB exterior noise standard, as well as County's 65 dB L_{dn} standard. Under Existing Plus Project conditions, exterior traffic noise levels are predicted to be approximately 69.5 to 77.0 dB L_{dn} . This would also exceed the City and County exterior noise level standards.

Under Existing Plus Project conditions, the proposed Project's contribution ranges between 1.0 dB and 4.1 dB, with three roadway segments experiencing increases that would exceed the 3 dB increase threshold. As shown in Table 3.11-8, significant traffic noise increases under the Existing Plus Project Plus traffic conditions include the following segments:

- **Airport Way from Commerce Drive to French Camp Road** – noise levels are predicted to increase by 4.1 dB.
- **Airport Way from French Camp Road to Roth Road** – noise levels are predicted to increase by 3.4 dB.
- **Airport Way from Performance Drive to Arch Road** – noise levels are predicted to increase by 4.6 dB.

In order to reduce this impact, the use of sound walls or quiet pavement would be required. Construction of new six-foot-tall sound walls could be a potential mitigation measure. However, all

of the impacted residential uses along the roadway segments listed above are accessed directly via driveways off the main roadway. As such, a sound wall would require many driveway openings, resulting in partial noise barriers. These openings in the sound wall would substantially reduce the noise barrier performance. Additionally, construction of noise barriers at off-site locations would result in encroachment into private property. Such encroachment would require private property owners to allow permission to enter their property. Therefore, noise barriers are not considered to be a practical option.

Quiet pavements are typically assumed to provide a 3 to 5 dBA reduction. Assuming a minimum reduction of 3 dBA, quiet pavement placed along sensitive receptor areas on the previously-listed roadway segments could reduce Project noise level increases to the following roadway segments:

- **Airport Way from Commerce Drive to French Camp Road** – noise levels are predicted to increase by 4.1 dB without mitigation. Use of quiet pavement would reduce this to a 1.1 dB increase. Approximately 1,000 feet (approximately 0.19 miles) of quiet pavement for four-lanes of roadway would be required. Approximate distance includes extension of quiet pavement a minimum of 100 feet past noise-sensitive receptors. See Figure 3.11-6 for approximate required pavement locations.
- **Airport Way from French Camp Road to Roth Road** – noise levels are predicted to increase by 3.4 dB without mitigation. Use of quiet pavement would reduce this to a 0.4 dB increase. Approximately 6,600 feet (approximately 1.25 miles) of quiet pavement for two-lanes of roadway would be required. Approximate distance includes extension of quiet pavement a minimum of 100 feet past noise-sensitive receptors. See Figure 3.11-6 for approximate required pavement locations.
- **Airport Way from Performance Drive to Arch Road** – noise levels are predicted to increase by 4.6 dB without mitigation. Use of quiet pavement would reduce this to a 1.6 dB increase. Approximately 500 feet (approximately 0.09 miles) of quiet pavement for four-lanes of roadway would be required. Approximate distance includes extension of quiet pavement a minimum of 100 feet past noise-sensitive receptors. See Figure 3.11-6 for approximate required pavement locations.

Therefore, with implementation of Mitigation Measure 3.11-1, traffic noise impacts would be ***less-than-significant***.

OPERATIONAL NOISE LEVELS AT EXISTING RECEPTORS

Operational noise levels at the existing residential receptors to the west and southwest of the site resulting from the Project are quantified and shown in Figures 3.11-2 through 3.11-4. Figure 3.11-2 shows the daytime (7:00 a.m. to 10:00 p.m.) Project noise contours, Figure 3.11-3 shows the nighttime (10:00 p.m. to 7:00 a.m.) Project noise contours, and Figure 3.11-4 shows the maximum (L_{max}) Project noise contours.

Based upon Figure 3.11-2, the Project would generate daytime (7:00 a.m. to 10:00 p.m.) peak hour noise levels of 48 dBA L_{eq} , or less, at the outdoor activity areas of adjacent residential uses. This would comply with the San Joaquin County non-transportation noise limits of 50 dBA L_{eq} during

daytime hours. Existing ambient noise measurements in the vicinity of these receptors was found to be approximately 59 dBA L_{eq} during daytime hours as shown by Table 3.11-2. At this location, the increase in noise levels due to the Project is estimated to be 0.0 dBA.

As shown in Figure 3.11-3, the Project would generate nighttime (10:00 p.m. to 7:00 a.m.) noise levels of 44.8 dBA L_{eq} or less at the residential uses. This would comply with the San Joaquin County non-transportation noise limits of 45 dBA L_{eq} during nighttime hours. Existing ambient noise measurements in the vicinity of these receptors was found to be approximately 58 dBA L_{eq} during nighttime hours as shown by Table 3.11-2. At this location, the increase in noise levels due to the Project is estimated to be 0.0 dBA.

Based upon Figure 3.11-4, the proposed Project is predicted to generate maximum noise levels of approximately 52 dBA L_{max} at the residential uses to the southwest of the Project. This would comply with the San Joaquin County maximum noise level limits of 70 dBA L_{max} during daytime hours and 65 dBA L_{max} during nighttime hours.

CONSTRUCTION NOISE

During the construction phases of the Project, noise from construction activities would add to the noise environment in the immediate Project vicinity. Based upon the Table 3.11-10 data, the proposed Project is predicted to generate construction noise levels of up to 90 dBA at a distance of 50 feet. The closest sensitive receptor to the Project site is approximately 2,200 feet from the Project area. At this distance, construction noise would attenuate to approximately 57 dBA.

Compliance with the City's permissible hours of construction, as well as implementing the best management noise reduction techniques and practices (both outlined in Mitigation Measure 3.11-2), would ensure that construction noise would not result in a substantial temporary increase in ambient noise levels that would result in annoyance or sleep disturbance of nearby sensitive receptors. Therefore, with implementation of Mitigation Measure 3.10-2, temporary construction noise impacts would be ***less-than-significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.11-1: *To reduce traffic noise increases under Existing Plus Project conditions to less than +3.0 dB, the following roadway segments shall be paved with quiet pavement:*

- ***Airport Way from Commerce Drive to French Camp Road.*** *Approximately 1,000 feet (approximately 0.19 miles) of quiet pavement for four-lanes of roadway would be required. Approximate distance includes extension of quiet pavement a minimum of 100 feet past noise-sensitive receptors. See Figure 3.11-6 for approximate required pavement locations.*
- ***Airport Way from French Camp Road to Roth Road.*** *Approximately 6,600 feet (approximately 1.25 miles) of quiet pavement for two-lanes of roadway would be required. Approximate distance includes extension of quiet pavement a minimum of 100 feet past noise-sensitive receptors. See Figure 3.11-6 for approximate required pavement locations.*

- **Airport Way from Performance Drive to Arch Road.** Approximately 500 feet (approximately 0.09 miles) of quiet pavement for four-lanes of roadway would be required. Approximate distance includes extension of quiet pavement a minimum of 100 feet past noise-sensitive receptors. See Figure 3.11-6 for approximate required pavement locations.

The pavement would be required for any portion of roadway passing a noise-sensitive use, and for a distance of 100 feet on either side of the sensitive-use. This requirement shall be noted on the Project improvement plans. Approximate pavement locations are shown on Figure 3.11-6.

Mitigation Measure 3.11-2: Construction activities associated with the project shall adhere to the requirements of the City of Stockton Municipal Code with respect to hours of operation. The applicant shall ordinarily limit construction activities to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday. No construction shall occur on Sundays or national holidays without a written permit from the City. All construction equipment shall be in good working order and shall be fitted with factory-equipped mufflers

These requirements shall be noted on the Project improvement plans.

Mitigation Measure 3.11-3: Project operation shall at all times comply with the provisions of Stockton Municipal Code Chapter 16.60, including Section 16.60.040, which states that new or expanded commercial, industrial, and other land use-related noise sources shall mitigate their noise levels such that they do not adversely impact noise-sensitive land uses (e.g., residences) and do not exceed City noise standards.

Impact 3.11-2: The proposed Project would not generate excessive groundborne vibration or groundborne noise levels. (Less than Significant)

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural damage.

With the exception of vibratory compactors, the Table 3.11-11 data indicate that construction vibration levels anticipated for the Project are less than the 0.2 in/sec threshold at a distance of 25 feet. Use of vibratory compactors within 26 feet of the adjacent buildings could cause vibrations in excess of 0.2 in/sec. Structures which could be impacted by construction-related vibrations, especially vibratory compactors/rollers, are located approximately 190 feet, or further, from the Project site. Therefore, this is a **less-than-significant** impact and no mitigation is required.

Impact 3.11-3: The proposed Project would not expose people residing or working in the Project area to excessive noise levels. (Less than Significant)

The Stockton Metropolitan Airport is a county-owned and operated joint civil-military airport located approximately 850 feet from the proposed Project boundary. Noise contours for the

Stockton Airport were published by San Joaquin County in the Airport Land Use Compatibility Plan (ALUCP). The ALUCP was published in May of 2016 and Amended in February of 2018.

As shown in Figure 3.11-5, the Project site is predicted to be exposed to noise levels between 65 and 70 dBA CNEL at the northern boundary by the year 2038. According to the ALUCP, industrial uses may be safely operated within the 70 to 75 dBA CNEL noise contour region. Additionally, the City of Stockton applies a 70 dBA L_{dn} /CNEL standard to industrial uses. Because the Project is located outside of the 70 dBA airport noise contour, this is a ***less-than-significant*** impact, and no mitigation is required.





South Stockton Commerce Center

City of Stockton, California

Figure 3.11-1

Noise Measurement Sites

Legend

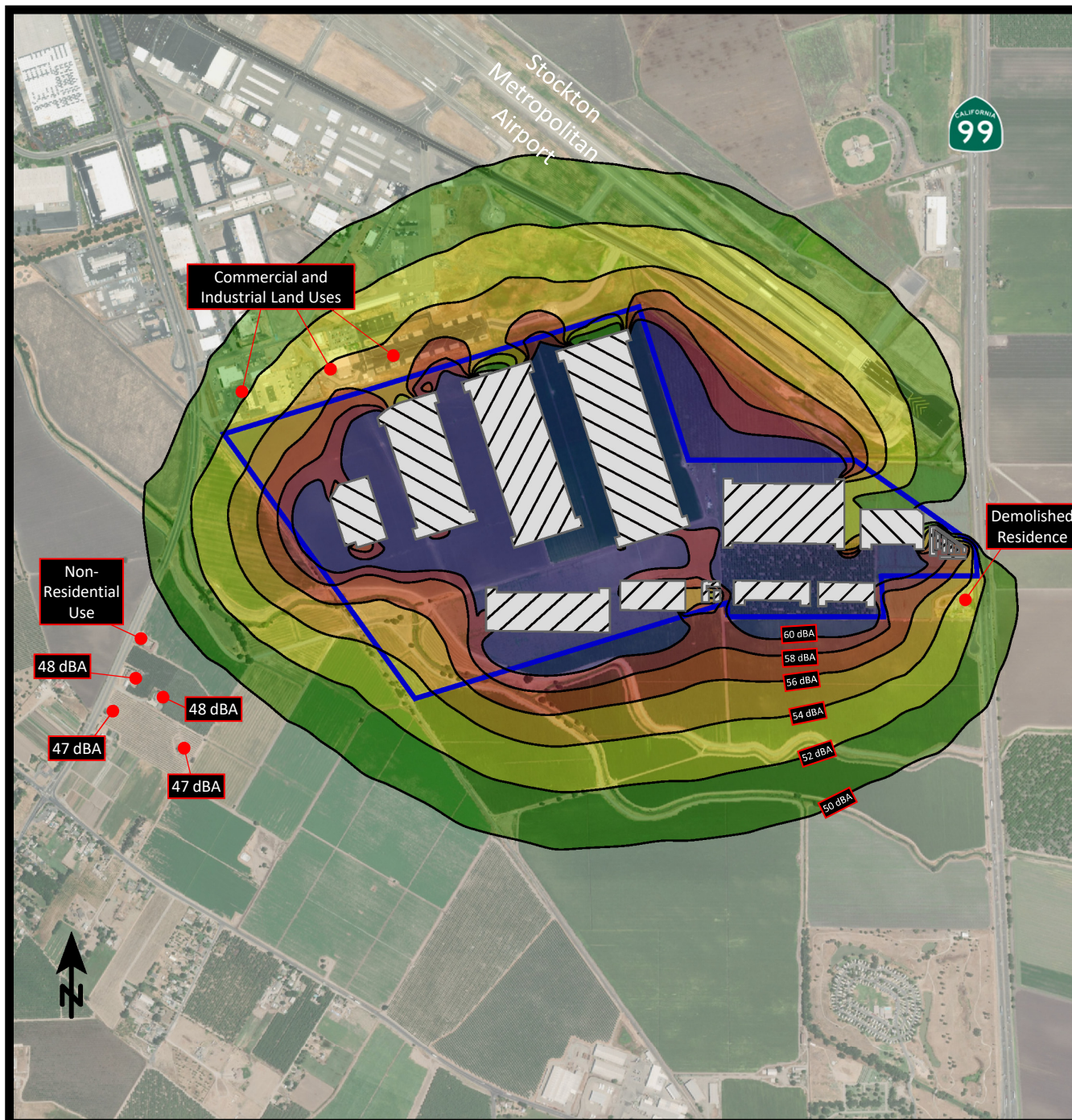
-  Noise Measurement - Long Term
-  Noise Measurement - Short Term



Projection: State Plane (California Zone 3) / NAD83 / meters
Rev. Date: 07/14/2020



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South Stockton Commerce Center

City of Stockton, California

Figure 3.11-2

Daytime (7 AM – 10 PM) Project Noise Contours (dBA L_{eq})

Signs and symbols

- Project Site
- Proposed Building

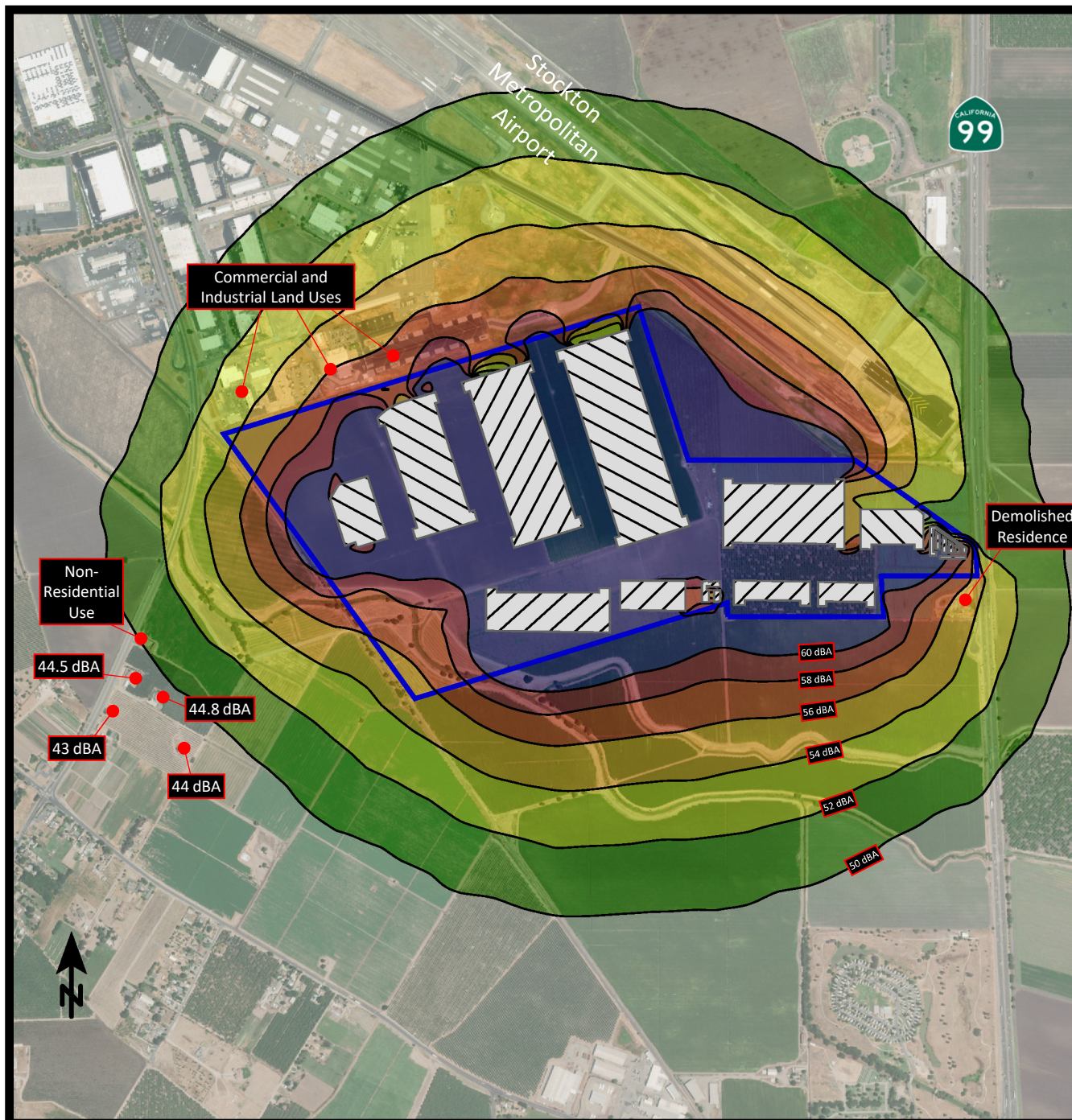
Levels in dB(A)

	<= 50
	50 - 52
	52 - 54
	54 - 56
	56 - 58
	58 - 60
	> 60

1 : 1500

0 0.05 0.1 0.2 0.3 0.4 miles

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South Stockton Commerce Center

City of Stockton, California

Figure 3.11-3

Nighttime (10 PM – 7 AM) Project Noise Contours (dBA L_{eq})

Signs and symbols

- Project Site
- Proposed Building

Levels in dB(A)

	≤ 45
	45 - 47
	47 - 49
	49 - 51
	51 - 53
	53 - 55
	> 55

1 : 1500

0 0.05 0.1 0.2 0.3 0.4 miles

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South Stockton Commerce Center

City of Stockton, California

Figure 3.11-4

Maximum Project Noise Contours
(dBA L_{max})

Signs and symbols

- Project Site
- Proposed Building

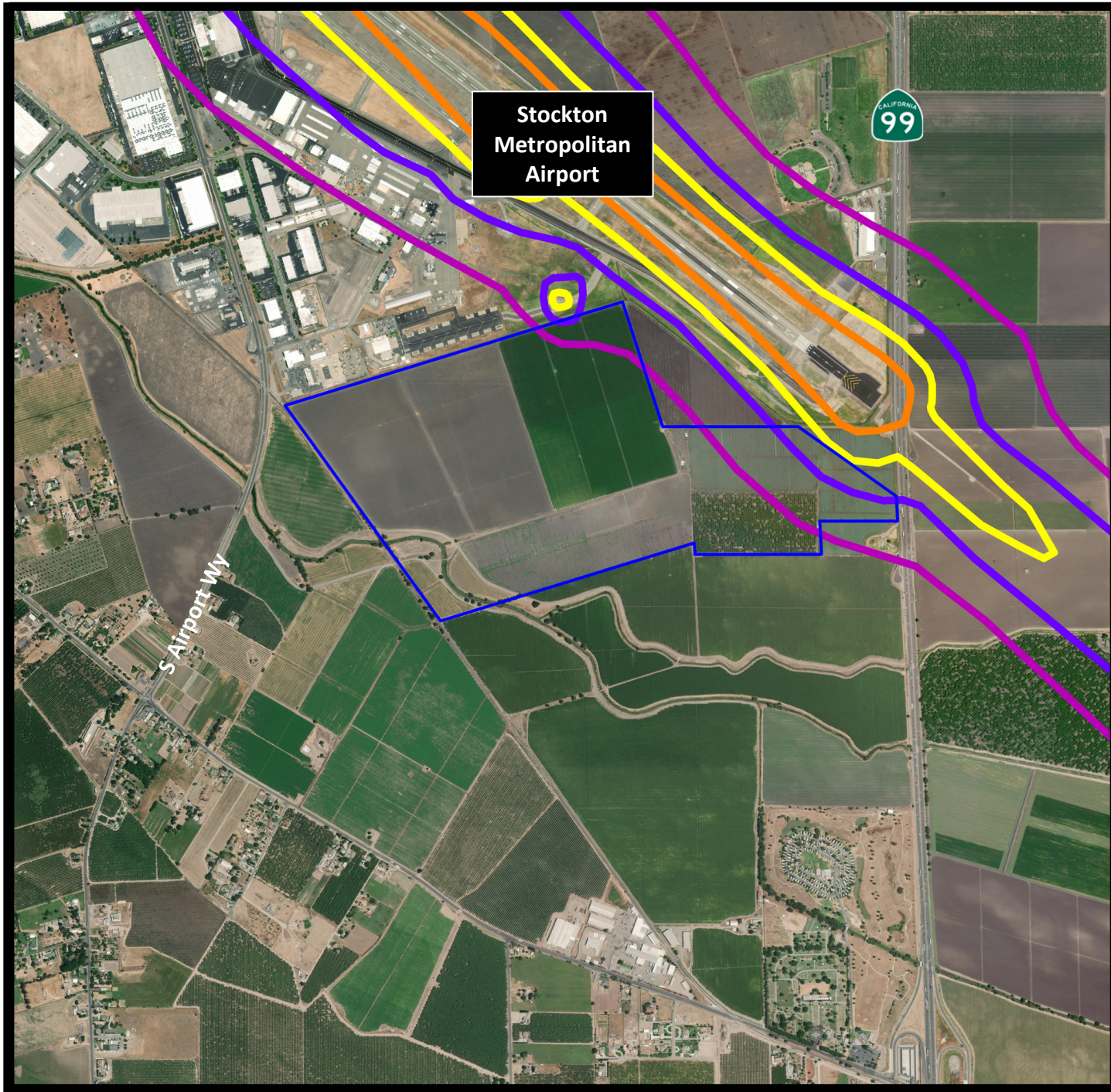
Levels in dB(A)

	<= 65
	65 - 67
	67 - 69
	69 - 71
	71 - 73
	73 - 75
	> 75

1 : 1500

0 0.05 0.1 0.2 0.3 0.4 miles

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South Stockton Commerce Center

City of Stockton, California

Figure 3.11-5

Airport Noise Contours

Legend

- Project Site
- 60 dBA Contour
- 65 dBA Contour
- 70 dBA Contour
- 75 dBA Contour



Projection: State Plane (California Zone 3) / NAD83 / meters
Rev. Date: 12/21/2020



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This section describes and evaluates potential impacts associated with the provision of police protection, fire protection and emergency services, parks and recreation, schools, and other public facilities for the proposed Project. The information in this section is primarily derived from the following: *Envision Stockton 2040 General Plan* (City of Stockton, 2018), *Envision Stockton 2040 General Plan Update and Utility Master Plan Supplements Draft EIR* (City of Stockton, 2018), and the *City of Stockton Municipal Service Review Public Review Final Draft* (City of Stockton, 2020).

No comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic.

3.12.1 ENVIRONMENTAL SETTING

CITY OF STOCKTON SERVICES

The City of Stockton receives funds for the provision of public services through development fees, property taxes, and connection and usage fees. As land is developed within the City, these fees apply. The City of Stockton reviews these fee structures on an annual basis to ensure that they provide adequate financing to cover the provision of city services. The City undertakes long-range planning programs to better plan and budget for needed improvements to services and facilities. The City also conducts a visioning process, in which departments identify staffing, technology, and facility needs for a three-year period, as well as savings and efficiency ideas. The City is preparing to develop a formal Long Range Financial Planning process.

The following public services are expected to be provided to the Project:

- General Government Services: City of Stockton
- Animal Control: City of Stockton
- Road Maintenance: City of Stockton
- Police Protection: Stockton Police Department
- Fire Protection: City of Stockton Fire Department
- Parks and Recreation: City of Stockton
- Schools: Manteca Unified School District (MUSD)
- Libraries: City of Stockton

City of Stockton Police Department

Law enforcement services for the City of Stockton are provided by the Stockton Police Department. The Stockton Police Department service area covers over 56 square miles. The average response time to in-progress life threatening emergencies is 5 minutes. Depending on the nature of the call, the time of day, the location, and the number of on-duty personnel, response times to non-emergency calls can exceed 25 minutes. The Stockton Police Department serves the area of the City limits, while the San Joaquin County Sheriff's Department serves all adjacent unincorporated areas within the Stockton Sphere of Influence.

3.12 PUBLIC SERVICES

Stockton's Police Department consists of 485 sworn police officers and 226 civilian staff. With the 2020 estimated population of approximately 318,000, this equates to a ratio of 1.52 sworn staff. This ratio exceeds the City's General Plan minimum standard of 1.5 sworn officers per 1,000 residents.¹ Although Stockton General Plan Policy PFS-7.2 states that the City shall maintain a ratio of 1.5 sworn officers per 1,000 population², staffing levels in the City of Stockton ultimately are determined each year by the City Council in consultation with the City Manager and Chief of Police based on the needs of the City. The City's goal is to respond to all priority one emergency calls within an average of five-minutes or less.

The Police Department has both traditional and specialized transportation equipment that it uses to conduct patrols, respond to emergencies, and provide programs. The transportation types include bicycle (12 units), marked vehicles (175 units), unmarked vehicles (209 units), motorcycles (30 units), animal control (8 units), and miscellaneous (28 units).

The Stockton Police Department is organized into two bureaus, Logistics and Operations, and five divisions, including Administrative Services, Field Services (including six Policing Districts), Investigations, Special Operations, and Technical Services. Divisions are coordinated out of two facilities: the Headquarters and Operations Buildings.

The Police Department management team consists of the Chief of Police, who oversees the Office of the Chief of Police, Professional Standards, Fiscal Affairs and Planning, and Public Information Sections, an Assistant Chief of Police, and two Deputy Chiefs of Police, each overseeing a bureau, and five Police Captains, each overseeing a division.

Table 3.12-1 shows the recent crime statistics for the City of Stockton between 2016 and 2019.

TABLE 3.12-1: STOCKTON CRIME STATISTICS (2016-2019)

CATEGORY/CRIME	2016	2017	2018	2019
Total Violent Crimes	4,316	4,379	4,383	4,380
Homicide	50	55	33	34
Rape	114	154	193	181
Robbery	1,156	1,208	1,205	1,158
Assault	2,996	2,962	2,952	3,007
Total Property Crimes	11,824	11,229	11,800	12,367
Burglary	2,260	2,140	2,329	2,209
Motor Vehicle Theft	1,666	2,049	2,054	1,678
Larceny	7,898	7,040	7,417	8,480
Arson	84	208	191	128

SOURCE: FBI CRIME STATISTICS, TABLE 8, 2016, 2017, 2018 AND 2019.

¹ City of Stockton General Plan, Public Facilities and Services Element, PFS-7.2.

² According to the Cal. State DOF, Stockton's population 318,522 on January 1, 2020.

City of Stockton Fire Department

The Stockton Fire Department serves the City of Stockton and its surrounding unincorporated area. The Fire Department estimates the total population served is about 336,000. According to the draft Stockton Municipal Service Review Update (February 23, 2017), with 181-line suppression personnel (i.e., firefighters), the ratio of firefighters to population served is 1:1,856. The Department is also supported by 24 civilian employees. The General Plan maintains a response time goal of four minutes for 90% of calls.

The Stockton Fire Department has 12 fire stations located throughout the City and relies on approximately 7,000 hydrants in key locations to provide adequate water for the surrounding development (Draft Municipal Services Review Update, 2017). The Stockton Fire Department maintains one engine company at each fire station and a truck company at Stations 2, 3, and 4. The Department has four trucks: three operational and one reserve apparatus that ensures replacement equipment is available to replace front-line equipment. Training and communication services are quartered at Station 2, which serves as the central fire station. Table 3.12-2 lists the location and equipment/division for each fire station.

TABLE 3.12-2: FIRE STATIONS, EQUIPMENT, AND SERVICES

STATION	LOCATION	EQUIPMENT/DIVISIONS
2	110 West Sonora Street	1 Engine; 1 Truck; Technical Rescue Unit; USAR; Training; Communications; Battalion Chief; Chief's Operator
3	1116 East First Street	1 Engine; 1 Truck; Hazardous Materials Response Unit; 1 Grass Rig
4	5525 Pacific Avenue	1 Engine; 1 Truck; Battalion Chief
5	3499 Manthey Road	1 Engine; 1 Grass Rig
6	1501 Picardy Lane	1 Engine; Water Rescue Unit; Swift Water & Dive Rescue Team
7	1767 West Hammer Lane	1 Engine 1 Grass Rig
9	550 East Harding Way	1 Engine, 1 Grass Rig
10	2903 West March Lane	1 Engine, 1 Grass Rig
11	1211 East Swain Road	1 Engine
12	4010 East Main Street	1 Engine; 1 Grass Rig
13	3606 Hendrix Dr. 95212	1 Engine; 1 Grass Rig
14	3019 McNabb Place	1 Engine; 1 Grass Rig

SOURCE: EXCERPTS FROM THE DRAFT STOCKTON MUNICIPAL SERVICE REVIEW UPDATE (FEBRUARY 23, 2017); STOCKTON FIRE DEPARTMENT ([HTTP://WWW.STOCKTONGOV.COM/GOVERNMENT/DEPARTMENTS/FIRE/DEFAULT.HTML](http://www.stocktongov.com/government/departments/fire/default.html)).

Other specialized services are staffed as follows:

- Hazardous Materials Unit – Station 3
- Swift Water and Dive Rescue Team – Station 6
- Urban Search and Rescue Team – Station 2

All 181 Stockton firefighters are certified to at least Emergency Medical Technician (EMT) level. As indicated by Table 3.12-2, all engines are staffed with a -three-person crew, and all trucks are staffed with a crew of four. The Department is divided into two battalions, each of which is overseen by one of the two Battalion Chiefs on duty at all times. The Chief's Operator oversees the Mobile Command

Unit and responds to all structure fires, hazardous material incidences, and large-scale emergency medical service (EMS) calls in the City. The Chief's Operator also schedules the daily staffing requirements.

Fire protection services would be provided to the Project site by the Stockton Fire Department. The existing Company 5, located on Manthey Road, would be the first response team for emergency calls within the Project site. Company 5 is approximately 4.1 miles west of the Project site.

ISO RATING

The Insurance Services Office (ISO) Public Protection Classification Program currently rates the Fire Department as 3 on a scale of 1 to 10, with 1 being the highest possible protection rating and 10 being the lowest. The ISO rating measures individual fire protection agencies against a Fire Suppression Rating Schedule, which includes such criteria as facilities and support for handling and dispatching fire alarms, first-alarm response and initial attack, and adequacy of local water supply for fire-suppression purposes.

City of Stockton Parks and Recreation Department

Parks and recreation services in the City of Stockton are provided by the Community Service Department, which operates 66 park facilities throughout the City that range in size from 2 to 64 acres. These parks include both neighborhood and community parks, with each facility providing a range of recreational opportunities that includes picnic areas and sports facilities such as baseball, softball, tennis, handball, horseshoe, soccer, and multi-use courts. Five community parks include community centers. The Department also operates several special regional facilities, including the Civic Auditorium, Hebert Field, the new Downtown Arena and Baseball Stadium, Oak Park Ice Area, Pixie Woods Children's Playland, Swenson and Van Buskirk Golf Courses, and the Calaveras River bicycle/jogging path. The City recently completed a new community park facility to the north of McNair High School. The City also recently completed an active sports facility within the San Joaquin Area Flood Control Agency detention basin facility. Additionally, the City has plans to construct several additional new facilities and renovate other existing facilities (i.e., Gleason Park), as necessary. However, the likelihood for these various projects to be developed in the future relies heavily on local economic conditions.

On a regional scale, the City is located in the Sacramento-San Joaquin Delta (Delta), which contains several recreational areas and facilities, primarily for water-based recreation. Regional County parks near the City include the 9.85-acre Dos Reis Regional Park and the 3.7-acre Mossdale Crossing Regional Park, both located along the San Joaquin River. Each of these parks includes boat launch ramps, picnic/barbeque areas, and children's play areas. Dos Reis Regional Park also has camping facilities. Also in the vicinity is the Haven Acres Marina, a private marina located on the San Joaquin River north of Dos Reis Regional Park. This facility provides river access to the San Joaquin River and includes parking areas, a boat ramp, and 10 boat berths.

Under the park standards outlined in the City's General Plan, the City aims to provide 2 acres of neighborhood parkland, 3 acres of community parkland, and 3 acres of regional parkland per 1,000 residents. With the existing population of 320,600 residents, the City is currently deficient in meeting its park service standards in all categories.

OTHER AGENCY SERVICES

Manteca Unified School District

The Manteca Unified School District (MUSD) provides school services for grades K through 12 within the communities of Manteca, Lathrop, Stockton, and French Camp. The District is approximately 113 square miles and serves more than 23,500 students. Within the City of Stockton there are 14 schools serving elementary age and middle school students (grades K-8), one K-6 school, four high schools (grades 9-12), one community day school (grades 7-12), and one vocational high school (grades 11-12). Table 3.13-3 lists MUSD schools, associated grade levels, and the most recent enrollment for each school.

TABLE 3.13-3: PUBLIC SCHOOLS SERVING MUSD

SCHOOL	GRADES SERVED	ADDRESS	ENROLLMENT 2018-2019 SCHOOL YEAR	ESTIMATED REMAINING CAPACITY
<i>ELEMENTARY AND MIDDLE SCHOOLS</i>				
George McParland Elementary School	K-8	1601 Northgate Dr	1,163	155
Stella Brockman Elementary School	K-8	763 Silverado Dr	813	329
Brock Elliott Elementary School	K-8	1110 Stonum Ln	838	104
French Camp Elementary	K-8	241 4th Street	584	416
Golden West Elementary School	K-8	1031 North Main St	536	270
Joshua Cowell Elementary School	K-8	740 Pestana Ave	651	335
Lincoln Elementary School	K-8	750 E Yosemite Ave	651	139
Manteca Community Day	K-6	737 W Yosemite Ave	15	--
Neil Hafley Elementary School	K-8	849 Northgate Dr	752	188
New Haven Elementary School	K-8	14600 Austin Rd	535	138
Nile Garden Elementary School	K-8	5700 E Nile Rd	726	30
Sequoia Elementary School	K-8	710 Martha St	815	57
Shasta Elementary School	K-8	751 E Edison St	772	208
Veritas Elementary School	K-8	1600 Pagola Ave	932	-72
Walter Woodward Elementary School	K-8	575 Tannehill Dr	910	-10
<i>HIGH SCHOOLS</i>				
Calla High School	9-12	130 S Austin Rd	162	--
East Union High School	9-12	1700 N Union Rd	1,614	196
Manteca Community Day School	7-12	737 W Yosemite Ave	50	--
Manteca High School	9-12	450 E Yosemite Ave	1,686	17
Sierra High School	9-12	1700 Thomas St	1,471	329
Manteca Unified Vocational Academy (be.tech)	11-12	2271 W. Louise Ave	127	--

SOURCE: CALIFORNIA DEPARTMENT OF EDUCATION EDUCATIONAL DEMOGRAPHICS UNIT ENROLLMENT FOR 2018-19

3.12 PUBLIC SERVICES

District-wide MUSD Schools have a total enrollment of 23,834 students for the 2019-2020 school year. Table 3.13-4 provides a summary of the public-school enrolment by grade within MUSD.

TABLE 3.13-4: ENROLLMENT BY GRADE MUSD (2019-2020)

MANTECA UNIFIED	GRADE LEVEL													TOTAL 2019-2020
	K	1	2	3	4	5	6	7	8	9	10	11	12	
Total	1,931	1,645	1,692	1,740	1,740	1,716	1,811	1,883	2,002	2,002	1,859	1,907	1,931	23,834

SOURCE: CALIFORNIA DEPARTMENT OF EDUCATION EDUCATIONAL DEMOGRAPHICS UNIT ENROLLMENT FOR 2018-2019

Library Services

The public library system in Stockton is operated by the City of Stockton and funded jointly by both the City and San Joaquin County. The system includes the downtown Central Library, three branch libraries that serve the City of Stockton, and other branch libraries that serve other San Joaquin County communities. Capital costs of new library development are met through the City's Public Facilities Fee program.

3.12.2 REGULATORY SETTING

STATE

Police Protection

There are no federal or state regulations related to police protection services applicable to the proposed Project.

Fire Protection and Emergency Response

CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

In accordance with California Code of Regulations Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment" the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

EMERGENCY RESPONSE/EVACUATION PLANS

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

FIRE PROTECTION

The California Fire Code contains regulations relating to construction and maintenance of buildings and the use of premises. Topics addressed in the Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions to protect and assist first responders, industrial processes, and many other general and specialized fire safety requirements for new existing buildings and premises.

CALIFORNIA FIRE CODE

The 2019 California Fire Code (CFC), known as the California Code of Regulations, Title 24, Part 9, based on the International Fire Code (2018) contains regulations consistent with nationally recognized and accepted practices for safeguarding life and property from the hazards of: fire and explosion; dangerous conditions arising from the storage, handling, and use of hazardous materials and devices; and hazardous conditions in the use or occupancy of buildings or premises.

CALIFORNIA HEALTH AND SAFETY CODE

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code. This includes regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 1710

The purpose of the National Fire Protection Association (NFPA) 1710 – Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments is to: contain minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by substantially all career fire departments; address functions and objectives of fire department emergency service delivery, response capabilities, and resources; contain general requirements for managing resources and systems, such as health and safety, incident management, training, communications, and pre-incident planning; and address the strategic and system issues involving the organization, operation, and deployment of a fire department and does not address tactical operations at a specific emergency incident. According to these guidelines, a career fire department needs to respond within six minutes, 90 percent of the time with a response time measured from the 911 call to the time of arrival of the first responder.

The standards are divided as follows:

- Dispatch time of one (1) minute or less for at least 90 percent of the alarms
- Turnout time of one (1) minute or less for EMS calls (80 seconds for fire and special operations response)
- Fire response travel time of four (4) minutes or less for the arrival of the first arriving engine company at a fire incident and eight (8) minutes or less travel time for the deployment of an initial full alarm assignment at a fire incident
- Eight (8) minutes or less travel time for the arrival of an advanced life support (ALS) (4 minutes or less if provided by the fire department)

Parks/Recreation

QUIMBY ACT

The Quimby Act (California Government Code Section 66477) states that “the legislative body of a city or county may, by ordinance, require the dedication of land or impose a requirement of the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes as a condition to the approval of a tentative or parcel map.” Requirements of the Quimby Act apply only to the acquisition of new parkland and do not apply to the physical development of new park facilities or associated operations and maintenance costs. The Quimby Act seeks to preserve open space needed to develop parkland and recreational facilities; however, the actual development of parks and other recreational facilities is subject to discretionary approval and is evaluated on a case-by-case basis with new residential development. Refer to the *City of Stockton Municipal Code* discussion, below, regarding park land dedications and fees imposed by the City.

Schools

CALIFORNIA CODE OF REGULATIONS

The California Code of Regulations, Title 5 Education Code, governs all aspects of education within the State.

CALIFORNIA DEPARTMENT OF EDUCATION

The California Department of Education (CDE) School Facilities Planning Division (SFPD) prepared a School Site Selection and Approval Guide that provides criteria for locating appropriate school sites in the State of California. School site and size recommendations were changed by the CDE in 2000 to reflect various changes in educational conditions, such as lowering of class sizes and use of advanced technology. The expanded use of school buildings and grounds for community and agency joint use and concern for the safety of the students and staff members also influenced the modification of the CDE recommendations.

Specific recommendations for school size are provided in the School Site Analysis and Development Guide. This document suggests a ratio of 1:2 between buildings and land. CDE is aware that in a number of cases, primarily in urban settings, smaller sites cannot accommodate this ratio. In such

cases, the SFPD may approve an amount of acreage less than the recommended gross site size and building-to-ground ratio.

Certain health and safety requirements for school site selection are governed by state regulations and the policies of the SFPD relating to:

- Proximity to airports, high-voltage power transmission lines, railroads, and major roadways;
- Presence of toxic and hazardous substances;
- Hazardous facilities and hazardous air emissions within one-quarter mile;
- Proximity to high-pressure natural gas lines, propane storage facilities, gasoline lines, pressurized sewer lines, or high-pressure water pipelines;
- Noise;
- Results of geological studies or soil analyses;
- Traffic and school bus safety issues.

LEROY F. GREENE SCHOOL FACILITIES ACT OF 1998 (SB 50)

The “Leroy F. Greene School Facilities Act of 1998,” also known as Senate Bill No. 50 or SB 50 (Chapter 407, Statutes of 1998), governs a school district’s authority to levy school impact fees. This comprehensive legislation, together with the \$9.2 billion education bond act approved by the voters in November 1998 known as “Proposition 1A”, reformed methods of school construction financing in California. SB 50 instituted a new school facility program by which school districts can apply for state construction and modernization funds. It imposed limitations on the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provided the authority for school districts to levy fees at three different levels:

- **Level I** fees are the current statutory fees allowed under Education Code 17620. This code section provides the basic authority for school districts to levy a fee against residential and commercial construction for the purpose of funding school construction or reconstruction of facilities. These fees vary by district for residential construction and commercial construction and are increased biannually.
- **Level II** fees are outlined in Government Code Section 65995.5, allowing school districts to impose a higher fee on residential construction if certain conditions are met. These conditions include having a substantial percentage of students on multi-track year-round scheduling, having an assumed debt equal to 15–30 percent of the district’s bonding capacity (percentage is based on revenue sources for repayment), having at least 20 percent of the district’s teaching stations housed in relocatable classrooms, and having placed a local bond on the ballot in the past four years which received at least 50 percent plus one of the votes cast. A Facility Needs Assessment must demonstrate the need for new school facilities for unhoused pupils is attributable to projected enrollment growth from the construction of new residential units over the next five years.
- **Level III** fees are outlined in Government Code Section 655995.7. If State funding becomes unavailable, this code section authorizes a school district that has been approved to collect Level II fees to collect a higher fee on residential construction. This fee is equal to twice the

amount of Level II fees. However, if a district eventually receives State funding, this excess fee may be reimbursed to the developers or subtracted from the amount of state funding.

The MUSD currently requires Level I fees for residential and commercial construction. The MUSD cannot increase to Level II fees due to the excess capacity at the existing schools located north of State Route 120. However, the MUSD is currently completing a demographic study in order to mitigate for future school facilities located south of State Route 120.

LOCAL

City of Stockton Municipal Code

The City of Stockton Municipal Code, Section 16.72.060(C), Park Land Dedications and Fees, provides for the dedication of land and/or the payment of fees to the City for park and recreational purposes and/or the construction of park and recreational facilities.

Additionally, Section 16.72.260, Public Facilities Fee, of the Municipal Code includes development impact fees to fund municipally owned public facilities, including but not limited to City office space, fire stations, libraries, police stations, community recreation centers, street improvements, and water and sewage facilities, and to pay for acquisition, enhancement, restoration, maintenance, and/or operation of habitat/open space conservation lands.

Envision Stockton 2040 General Plan

The Envision Stockton 2040 General Plan contains the following goals and policies related to public services and recreation are applicable to the proposed Project.

GOALS: PUBLIC FACILITIES & SERVICES ELEMENT

- PFS-1. To ensure the provision of adequate facilities and services that maintain service levels are adequately funded and allocated strategically.
- PFS-7. To provide protection to the public through adequate police staffing and related resources, effective law enforcement, and the incorporation of crime prevention features in new development, as approved by the Police Department.
- PFS-8. To provide protection to the public through effective fire protection services and the incorporation of fire safety features in new development.

POLICIES: PUBLIC FACILITIES & SERVICES ELEMENT

- PFS-1.1. Maintain Existing Levels of Services. The City shall give priority to providing services to existing urban areas in order to prevent the deterioration of existing levels-of-service.
- PFS-1.4. Development Impacts to Existing Infrastructure. The City shall ensure that proposed developments do not create substantial adverse impacts on existing infrastructure and that the necessary infrastructure will be in place to support the development.

- PFS-1.5. Funding for Public Facilities. The City shall continue to utilize developer fees, the City's public facilities fees, and other methods (i.e., grant funding and assessment districts) to finance public facility design, construction, operation, and maintenance.
- PFS-1.8. Impact Mitigation. The City shall review development proposals for their impacts on infrastructure (i.e., sewer, water, fire stations, libraries, streets) and require appropriate mitigation measures if development reduces service levels.
- PFS-1.9. Conditions of Approval. During the development review process, the City shall not approve new development unless the following conditions are met:
 - The applicant can demonstrate that all necessary infrastructure will be installed or adequately financed;
 - Infrastructure improvements are consistent with City infrastructure plans.
- PFS-7.1. Police Response Time. The City shall maintain an average response time of 5 minutes or less for priority one calls.
- PFS-7.2. Staffing Ratios. The City shall strive to maintain a minimum ratio of 1.5 sworn officers per 1,000 residents served.
- PFS-7.5. Design Features for Crime Prevention and Reduction. The City shall continue to promote the use of building and site design features as a means for crime prevention and reduction.
- PFS-8.1. Fire Response Time. The City shall work to maintain a fire response time as indicated in Table 9-1, which shall be used to determine future fire station needs.
- PFS-8.2. Insurance Service Organization (ISO) Rating. The City shall continue to maintain an ISO rating of 1.
- PFS-8.3. Provision of Station Facilities and Equipment. The City should provide fire station facilities, equipment (engines and other apparatus), and staffing necessary to maintain the City's service standards (ISO rating and response time).
- PFS-8.4. Cost Sharing. The City shall require new development to pay all public facility fees (PFF) as a means to provide a fair share of costs to provide fire station facilities and equipment in order to maintain the City's ISO rating of 1. Also, new development may be required to create a Community Facility District (CFD) or other funding mechanisms to pay the costs associated with the operation of a fire station.
- PFS-8.6. Adequate Emergency Access and Routes. The City shall require that new development provide adequate access for emergency vehicles, particularly firefighting equipment, as well as provide evacuation routes.

GOAL: RECREATION & WATERWAYS ELEMENT

- RW-2. To provide a variety of recreational facilities to meet the diverse needs of Stockton's residents, workers, and visitors.

POLICY: RECREATION & WATERWAYS ELEMENT

- RW-2.1. City Park and Recreation Standards. The City shall ensure that park and recreation facilities be provided at a level that meets the standards (net acres/1,000 residents,

3.12 PUBLIC SERVICES

minimum net acres/park, service radius) for neighborhood parks, community parks, and regional parks shown in Table 10-1 [Table 3.12-3].

TABLE 3.12-3: CITY OF STOCKTON PARK STANDARDS

TYPE OF PARK	NET ACRES/1,000 RESIDENTS	MINIMUM NET ACRES/PARK	SERVICE RADIUS
Neighborhood	2	5	Up to 0.5-mile radius
Community	3	15	Up to 1-mile radius
Regional	3	30 and over	Region-wide
Public Golf Courses	1 course/40,000	160-230	Region-wide

SOURCE: CITY OF STOCKTON GENERAL PLAN, TABLE 10-1.

3.12.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on public services and recreation if it would result in:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
 - Fire Protection;
 - Police Protection;
 - Schools;
 - Parks; and
 - Other public facilities.
- An increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- If it includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

IMPACTS AND MITIGATION MEASURES

Impact 3.12-1: The proposed Project has the potential to require the construction of police department facilities which may cause substantial adverse physical environmental impacts (Less than Significant)

As noted previously, the Police Department's sworn staff totals 485, a ratio of about 1.52 sworn officers per 1,000 population.³ This ratio currently exceeds the City's General Plan minimum standard of 1.5 sworn officers per 1,000 residents.⁴ However, staffing levels in the City of Stockton ultimately are determined by the City Council in consultation with the City Manager and Chief of Police.

The Project proposes the development of approximately 422-acres of currently undeveloped land with industrial, commercial, open space, public facilities, and public roadway right-of-way land uses within the southern portion of the City. Although the Project does not propose the development of residential uses resulting in a direct increase in the City's population, the creation of new jobs within the City could result in an indirect increase in population associated with the potential for future Project employees (and their families) to relocate to the City. This potential increase in population could contribute to the standard of sworn officers to residents being further exceeded. Further, development of the Project site could increase the demand for police protection services to the site when compared to existing conditions. However, as discussed in Section 3.10, Land Use and Population, development of the Project site, as proposed, would be consistent with the General Plan land use and zoning identified for the site and would not result in significant growth beyond that identified and planned for in the City's General Plan. Although demand for services may increase, the Project would not directly increase demand for police services to the extent that new or physically altered police department facilities would be needed in order to maintain acceptable service ratios, response times, or other performance objectives.

The Project would be subject to Stockton Municipal Code Section 16.72.260, Public Facilities Fee, which requires payment of a public facilities fee on issuance of building permits for development in the City to pay for municipally owned facilities, including but not limited to police stations. Payment of the fee is required in order to implement the goals and objectives of the General Plan and to mitigate the impacts caused by future development in the City. The payment of fees has been identified to finance public facilities and/or compensation measures, and to pay for each development's fair share of the construction costs of these improvements, and/or the costs of the compensation measures. Payment of the public facilities fee in compliance with Municipal Code 17.72.260 would reduce potential impacts associated with the Project's contribution toward the future need for new or physically altered police department facilities. As the Project would not directly require the need for new or physically altered police facilities in order to maintain

³ According to the Cal. State DOF, Stockton's population 318,522 on January 1, 2020.

⁴ City of Stockton General Plan, Public Facilities and Services Element, PFS-7.2.

acceptable service ratios, response times or other performance objective which may cause substantial adverse physical environmental impacts, implementation of the proposed Project would have a *less than significant* relative to this topic.

Impact 3.12-2: The proposed Project has the potential to require the construction of fire department facilities which may cause substantial adverse physical environmental impacts (Less than Significant with Mitigation)

The City of Stockton General Plan includes policies and implementation measures to ensure that the Fire Department continues to provide adequate facilities and staffing levels. Below is a list of relevant policies:

- The City shall review development proposals for their impacts on infrastructure (i.e., sewer, water, fire stations, libraries, streets) and require appropriate mitigation measures if development reduces service levels (Policy PFS-1.8).
- The City shall work to maintain a fire response time as indicated in Table 9-1, which shall be used to determine future fire station needs (Policy PFS-8.1).
- The City shall continue to maintain an ISO rating of 1 (Policy PFS-8.2).
- The City should provide fire station facilities, equipment (engines and other apparatus), and staffing necessary to maintain the City's service standards (ISO rating and response time) (Policy PFS-8.3).
- The City shall require new development to pay all public facility fees (PFF) as a means to provide a fair share of costs to provide fire station facilities and equipment in order to maintain the City's ISO rating of 1. Also, new development may be required to create a Community Facility District (CFD) or other funding mechanisms to pay the costs associated with the operation of a fire station (Policy PFS-8.4).

Continued growth within the city will increase the overall demand on fire protection services in the city. Growth in accordance with buildout of the existing General Plan is expected to generate the typical range of service calls, including structure fires, car fires, electrical fires, emergency medical response and others. Any new facilities would require environmental review once a location and design of such facility is developed. The City's costs to maintain equipment and facilities and to train and equip personnel will also increase. Growth in rural areas and fire districts will also increase the demand for fire protection services in those areas.

Development of the Project, as proposed, could increase demand for fire protection services to the site. The most effective response would be from Station 5, which is the closest to the Project site and located approximately 4 miles northwest of the Project site. The Fire Chief did not indicate that there would be a need for the proposed Project to construct a new fire station or physically alter a fire station, in order to maintain acceptable service ratios, response times, or other performance objectives for public services.

The Project would be subject to Stockton Municipal Code Section 17.72.260, Public Facilities Fee, which requires payment of a public facilities fee on issuance of building permits for development in the City to pay for municipally owned facilities, including but not limited to fire stations. Payment of the fee is required in order to implement the goals and objectives of the General Plan and to mitigate the impacts caused by future development in the City. The payment of fees has been identified to finance public facilities and/or compensation measures, and to pay for each development's fair share of the construction costs of these improvements, and/or the costs of the compensation measures. Payment of the public facilities fee in compliance with Municipal Code 16.72.260 would reduce potential impacts associated with the Project's contribution toward the future need for new or physically altered fire department facilities. As the Project would not directly require the need for new or physically altered fire facilities in order to maintain acceptable service ratios, response times or other performance objective which may cause substantial adverse physical environmental impacts, implementation of the proposed Project would have a ***less than significant*** relative to this topic.

MITIGATION MEASURES

Mitigation Measure 3.12-1: *Project buildings shall include an Early Suppression, Fast Response (ESFR) fire sprinkler system.*

Mitigation Measure 3.12-2: *City departments, including Fire, Community Development, and Finance, together with industrial project proponents, shall develop and implement a plan for financing, construction and staffing of a new fire station in the vicinity of the project site. Development and implementation of the plan will involve a multi-year process helping the Department meet increasing service demands and to reduce response times. The project applicant shall contribute to the costs of constructing and staffing the new fire station in accordance with the adopted plan.*

Impact 3.12-3: The proposed Project has the potential to require the construction of school facilities which may cause substantial adverse physical environmental impacts (Less than Significant)

The City of Stockton is located within the service boundaries of the MUSD. MUSD provides school services for grades K through 12 within the communities of Manteca, Lathrop, Stockton, and French Camp. MUSD operates 14 elementary and middle schools (grades K-8), four high schools (grades 9-12), one community day school (grades 7-12), and one vocational academy (grades 11-12). District-wide MUSD Schools has a total enrollment of 23,834 students for the 2019-2020 school year.

The Project does not propose residential uses and therefore would not directly result in the addition of school-aged children attending schools within MUSD. However, development of the Project would result in new employment opportunities to the City and there is the potential that some portion of these employees (and their families) would relocate to Stockton and potentially include school-aged children that would attend schools within MUSD. At this time, it is unknown how many people may choose to relocate to the City and where in the City they may choose to reside.

Therefore, it is too speculative to know which MUSD schools may receive new school-aged children indirectly associated with employment opportunities at the Project site. As shown in Table 3.13-3, existing elementary and high schools within MUSD have capacity to accommodate additional school-aged children.

The MUSD collects impact fees from new developments under the provisions of SB 50. The Project would be subject to payment of school impact fees in accordance with Senate Bill 50 (SB 50). Pursuant to Government Code Section 65995(3)(h), payment of statutory fees is deemed to be full and complete mitigation of impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use or development of real property..." Developer fees collected by MUSD pursuant to SB 50 are used for the provision of additional and reconstructed or modernized school facilities. The Project Applicant would be required to pay all statutory fees in place at the time and demonstrate proof of payment to the City. With payment of the fees, the impact of the proposed Project on the need for additional school facilities is *less than significant*.

Impact 3.12-4: The proposed Project has the potential to have effects on other public facilities (Less than Significant)

As discussed, although the Project does not propose the development of residential uses resulting in a direct increase in the City's population, the creation of new jobs within the City could result in an indirect increase in population associated with the potential for future Project employees (and their families) to relocate to the City. This potential increase in population could result in an increased demand on public facilities, such as community centers and public libraries. However, as discussed in Section 3.10, Land Use and Population, development of the Project site, as proposed, would be consistent with the General Plan land use and zoning identified for the site and would not result in significant growth beyond that identified and planned for in the City's General Plan. Although demand for on public facilities may increase, the Project would not directly increase demand to the extent that new or physically altered facilities would be needed in order to maintain acceptable performance objectives.

The Project would be subject to Stockton Municipal Code Section 16.72.260, Public Facilities Fee, which requires payment of a public facilities fee on issuance of building permits for development in the City to pay for municipally owned facilities, including but not limited to City office space, libraries, and community recreation centers. Payment of the fee is required in order to implement the goals and objectives of the General Plan and to mitigate the impacts caused by future development in the City. The payment of fees has been identified to finance public facilities and/or compensation measures, and to pay for each development's fair share of the construction costs of these improvements, and/or the costs of the compensation measures. Payment of the public facilities fee in compliance with Municipal Code 16.72.260 would reduce potential impacts associated with the Project's contribution toward the future need for new or physically altered public facilities. As the Project would not directly require the need for new or physically altered police facilities in order to maintain acceptable service ratios, response times or other performance objective which may cause

substantial adverse physical environmental impacts, implementation of the proposed Project would have a *less than significant* impact relative to this topic.

Impact 3.12-5: The proposed Project has the potential to require the construction of park and recreational facilities which may cause substantial adverse physical environmental impacts (Less than Significant)

The proposed Project site is currently agricultural land that is designated for industrial uses. As part of the proposed industrial development, the Project proposes approximately 54 acres of open space areas within the site, which will include approximately seven acres of open space in which a portion of it will be for a habitat setback area located east of the UPRR, south of the future Commerce Drive and along French Camp Slough. The project does not propose any park uses. The potential adverse physical environmental impacts associated with the proposed open space areas have been addressed within this EIR. The proposed open space would not cause a substantial adverse physical environmental impact. Implementation of the proposed project would have a *less than significant* impact relative to this topic.

Impact 3.12-6: The proposed Project has the potential to increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated (Less than Significant)

The proposed Project site is currently agricultural land and is not directly located adjacent to an existing neighborhood or regional park, or other recreational facility. The Project proposes to develop the site with primarily industrial uses. As no residential uses are proposed, the Project would not result in a direct increase in population with the potential to increase the use of existing neighborhood and regional parks or other recreational facilities. As discussed above, the Project proposes approximately 54 acres of open space areas within the site, which will include approximately seven acres of open space in which a portion of it will be for a habitat setback area located east of the UPRR, south of the future Commerce Drive and along French Camp Slough. Thus, it is not anticipated that employees would utilize other parks and recreational facilities outside of the area.

Indirect population growth that may occur as a result of new employees (and their families) potentially choosing to relocate to the City may increase the use of park and recreational facilities within the City. However, the City accounts for the use of parks and recreational facilities directly resulting from residential development through the requirement for subdivisions to dedicate land and/or provide payment of fees to the City for parks and recreational purposes. Additionally, the City of Stockton receives funds for the provision of public services through development fees, property taxes, and connection and usage fees. The proposed Project would not significantly increase the use of an existing park, or other recreational facility. Therefore, it is not anticipated that

any substantial physical deterioration of existing facilities would occur or be accelerated. As such, the proposed Project would have a ***less than significant*** impact relative to this topic.

This section analyzes the potential impacts of the proposed Project on the transportation system. This section identifies the potential transportation impacts of future buildout of the Project and recommends mitigation measures to lessen their significance. Information in this section is derived primarily from the following (as well as other information described in this section):

- *South Stockton Commerce Center (SSCC) Project Vehicle Miles Traveled Analysis (VMTA) and Transportation Impact Assessment (TIA)* (Fehr & Peers, February 2021);
- *Envision Stockton 2040 General Plan* (City of Stockton, December 2018);
- *Envision Stockton 2040 General Plan Update Draft Environmental Impact Report* (City of Stockton, June 2018);
- *City of Stockton Bicycle Master Plan* (City of Stockton, December 2017);
- State of California, Governor's Office of Planning and Research (OPR), *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR, December 2018);
- *Trip Generation Manual, 10th Edition* (ITE, 2017); and
- *Trip Generation Handbook, 3rd Edition* (ITE, 2017).

Comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the following: California Department of Transportation (Caltrans) (October 22, 2020), California Department of Justice (November 24, 2020), Marvin Norman (October 30, 2020), and Sierra Club, Delta-Sierra Group (October 27, 2020). Each of the comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

According to Senate Bill (SB) 743, which became effective statewide on July 1, 2020. The legislation associated with this landmark law specified that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

Therefore, unlike previous Draft EIRs published in Stockton, this Draft EIR uses VMT as the primary significance criteria and Level of Service (LOS) to aid the City of Stockton and Caltrans in the understanding of potential increases in vehicle delay at key signalized intersections (Policy TR-4: Effective Transportation Assessment) and determine improvements to the local and regional transportation system. Pages 22 through 57 of Appendix F present the results of Existing Conditions Impacts and Mitigation Measures and the Cumulative Conditions Impacts and Mitigation Measures.

In December 2018, the California Office of Planning and Research (OPR) published final technical guidance for implementing SB 743. On December 28, 2018, the Resources Agency adopted CEQA Guidelines Section 15064.3. Under that guideline, vehicles miles traveled (VMT) was chosen as the primary metric used to identify transportation impacts. Hence, this chapter includes an extensive review of the Project's VMT. This section also addresses many other important transportation-related areas of concern including pedestrian/bicycle facilities, transit facilities and services, emergency vehicle response, hazardous conditions, and temporary construction-related conditions.

3.13.1 ENVIRONMENTAL SETTING

PROJECT LOCATION

The Project site is comprised of 422.2 acres located in the southeast portion of the City of Stockton, bounded by State Route (SR) 99 to the east, Airport Way to the west, French Camp Road to the south, and Stockton Metropolitan Airport to the north.

The Project site is located west of the SR 99 Frontage Road and east of Airport Way. The Union Pacific Railroad (UPRR) extends south from Airport Way bisecting the western portion of the site. French Camp Slough extends southeast from Airport Way across the southwestern portion of the site. The Slough continues east under the UPRR and then south across the southwestern portion of the site, before continuing southerly and exiting the Project site. The Project site is currently comprised of active agricultural fields and orchards. The majority of the fields produce watermelons, with a walnut orchard located in the eastern portion of the site. The off-site sewer improvements would be located along the western site frontage on Airport Way, head north along Airport Way, and terminate in Airport Way and Industrial Drive to the north.

ROADWAY SYSTEM

Regional access to the Project site is provided by Interstate 5 (I-5) at the E. French Camp Road (to and from the north) and Roth Road (to and from the south) interchanges. Access to and from SR 99 is provided at the Arch-Airport Road (to and from the north) and E. French Camp Road (to and from the south) interchanges.

The following are descriptions of the primary roadways in the vicinity of the Project site:

I-5 is a major north-south freeway that traverses the western United States, originating in southern California and continuing north toward Sacramento and beyond. I-5 runs through the western portion of the City of Stockton, west of the Project site. Three mixed-flow lanes are provided in each direction on I-5 in the vicinity of the Project site. Typical daily volumes on I-5 in the vicinity of the Project site are approximately 110,000 vehicles.

SR 99 is a north-south freeway that traverses the central valley of California. It originates south of Bakersfield, branching off of I-5 and continues north to Sacramento, where it reconnects with I-5. SR 99 runs through the eastern portion of the City of Stockton, east of the Project site. Three mixed-flow lanes are provided in each direction on SR 99 in the vicinity of the Project site. Typical daily volumes on SR 99 in the vicinity of the Project site are approximately 70,000 vehicles. North of E. French Camp Road, there are frontage roads on both sides of SR 99.

E. French Camp Road is a two-lane, east-west roadway that extends from west of I-5 to east of SR 99 and forms the southern boundary of the Project site. Left-turn pockets are provided at major intersections. There are no bicycle facilities and limited pedestrian facilities provided on this roadway in the study area.

Sperry Road/Arch-Airport Road is an east-west roadway north of the Project site that extends from west of I-5 to east of SR 99. East of Frank W. Circle, the recently constructed grade-separated segment of Arch-Airport Road is four-lane roadway with a 45 mile-per-hour (mph) speed limit that includes pedestrian facilities. West of S. Airport Way and east of Performance Drive, this roadway is called Sperry Road. Sperry Road is a four-lane roadway with left-turn pockets at major intersections. East of S. Airport Way, Sperry Road becomes Arch-Airport Road with between one and two travel lanes in each direction. There are limited pedestrian facilities on this roadway and no bicycle facilities.

S. Airport Way is a two-way, north-south roadway that connects Downtown Stockton south through the City of Manteca, and bisects the Project site. It is a four-lane facility with right and left-turn lanes and median dividers at most intersections. There are limited pedestrian facilities on this roadway and no bicycle facilities.

Roth Road is a two-lane east-west collector roadway located south of the Project. Roth Road connects Mantney Road with S. Airport Way. An interchange with I-5 is provided at Roth Road. There are limited pedestrian facilities on this roadway and no bicycle facilities.

PEDESTRIAN AND BICYCLE FACILITIES

This section describes the existing pedestrian and bicycle facilities in the vicinity of the Project site.

Pedestrian Facilities

Within the study area, limited pedestrian facilities are provided along S. Airport Way, French Camp Road, Arch-Airport Road, and Roth Road. Crosswalks, pedestrian signal heads and pedestrian call push buttons are provided at the following study intersections:

1. Airport Way/French Camp Road (north side, east side and south side);
2. Airport Way/Commerce Drive (will be provided on the north side, east side and south side);
3. Airport Way/Arch-Airport Road (no crosswalks provided);
4. Airport Way/Roth Road (no crosswalks provided);
5. Arch-Airport Road/SR 99 Single Point Urban Interchange (SPUI) (north side of interchange);
6. French Camp Road/SR 99 Southbound Ramps (no crosswalks provided);
7. French Camp Road/SR 99 Northbound Ramps (no crosswalks provided);
8. French Camp Road/Sperry Road (Arch-Airport Road)(north side, west side, east side and south side);
9. French Camp Road/I-5 Southbound Ramps (south side of interchange);
10. French Camp Road/I-5 Northbound Ramps (south side of interchange);
11. Roth Road/I-5 Southbound Ramps (no crosswalks provided); and
12. Roth Road/I-5 Northbound Ramps (no crosswalks provided).

Pedestrian signal heads and pedestrian call push buttons are provided at the following study intersections:

1. Airport Way/French Camp Road (north leg, east leg and south leg);

2. Airport Way/Commerce Drive (will be provided on the north leg, east leg and south leg);
3. Arch-Airport Road/SR 99 Single Point Urban Interchange (SPUI) (SB off-ramp and NB on-ramp);
4. French Camp Road/Sperry Road (Arch-Airport Road) (north, west, east and south legs); and
5. French Camp Road/I-5 Northbound Ramps (NB off-ramp).

Bicycle Facilities

Bicycle facilities in Stockton include the following general types:

- **Class I: Shared Use Path** - Referred to as shared-use paths or trails, are off-street facilities that provide exclusive use for non-motorized travel, including bicyclists and pedestrians. Bike paths have minimal cross flow with motorists and are typically located along landscaped corridors.
- **Class II: Bicycle Lane** – Bicycle lanes provide a restricted right-of-way and are designated for the use of bicycles for one-way travel with a striped lane on a street or highway. Bicycle lanes are generally a minimum of five feet wide. Vehicle parking and vehicle/pedestrian cross-flow are permitted.
- **Class III: Bicycle Route** - These facilities are found along streets that do not provide sufficient width for dedicated bicycle lanes. The street is designated as a bicycle route through the use of signage and optional pavement markings where bicyclists travel on the shoulder or share a lane with motor vehicles. Class III bike routes are utilized on low-speed and low-volume streets to connect bike lanes or paths along corridors that do not provide enough space for dedicated lanes.
- **Class IV: Separated Bikeway** - Commonly known as cycle tracks, are physically separated bicycle facilities that are distinct from the sidewalk and designed for exclusive use by bicyclists. They are located within the street right-of-way, but provide comfort similar to Class I bike paths

There are further distinctions made in the City of Stockton Municipal Code regarding bicycle facilities. A Bicycle Path is a shared bicycle and pedestrian facility parallel to a public street or roadway, a minimum of 75 feet away from the public street/roadway. Additionally, the City of Stockton permits bicyclists to share the sidewalk with pedestrians.

Class I bicycle paths exist on Arch-Airport Road between E. French Camp Road and Sperry Road.

The City has an on-going Class IV separated bikeway project on Airport Way. As of July 2021, the facility has been constructed from Charter Way to the north and 12th Street to the south as part of Public Works Project PW1808. Ultimately, the Class IV project will extend south beyond Arch-Airport Road to Performance Drive / Dixon Street, which is about 0.75 miles north of the South Stockton Commerce Center (SSCC) Project.

TRANSIT SERVICE

Transit service in the area is provided by San Joaquin Regional Transit District (RTD). San Joaquin RTD provides public transit services in the Stockton Metropolitan area, as well as inter-city and rural

transit services countywide. There are limited transit services provided to Project site, with the closest routes, Routes 44, 91 and 510, serving Arch-Airport Road with stops approximately three miles from the Project site.

RAILROAD CROSSING COLLISION ANALYSIS

Accident data was reviewed for the at-grade railroad crossings in the study area. In the immediate study area, there are five at-grade railroad crossings:

1. S. Airport Way, south of Stimson Street;
2. E. French Camp Road, east of Harlan Road;
3. E. French Camp Road, east of Priest Road;
4. Roth Road, west of McKinley Avenue; and
5. Roth Road, west of Intermodal Way.

Accident data at the above crossings was obtained from the Department of Transportation, Federal Railroad Administration (FRA). The accident experience at each crossing is discussed below, with a general description of the crossing, including the number of lanes, the range of train speeds over the crossing, and the typical number of trains per day based on data as of December 2019.

1. **S. Airport Way, south of Stimson Street** – The Airport Way crossing of the UPRR tracks is a four-lane at-grade crossing. No information is available from the FRA for this crossing; however, at other crossings of this line, limited train activity is noted.
2. **E. French Camp Road, east of Harlan Road** – The E. French Camp Road crossing of the UPRR tracks is a two-lane at-grade crossing. There are typically 34 trains per day at this crossing with train speeds of 35 to 70 mph. Gate arms, pavement markings, train signals and mast mounted flashing lights are provided at the crossing. Fatal accidents occurred in 1978 and 1991 and a non-fatal accident occurred in 1997. In the two fatal accidents, the train was traveling faster than 30 mph. In the non-fatal accidents, the train was traveling approximately 10 mph.
3. **E. French Camp Road, east of Priest Road** – This railroad crossing is a two-lane at-grade crossing. There are typically 12 trains per day at this crossing with train speeds of 30 to 60 mph. Gate arms, pavement markings, train signals, and mast mounted flashing lights are provided at the crossing. An injury incident occurred in 1982, and a non-injury incident occurred in 1992.
4. **Roth Road, west of McKinley Avenue** – This crossing is a two-lane at-grade crossing. There are typically 12 trains per day at this crossing with train speed of 30 to 60 mph. Gate arms, pavement markings, train signals, and mast mounted flashing lights are provided. Four incidents occurred at this crossing in 2001, resulting in two injuries and no fatalities. Prior incidents occurred in 1976 and 1979, resulting in one injury. In 2009, a non-injury incident occurred when a pick-up truck stopped on the crossing.
5. **Roth Road, west of Intermodal Way** – This crossing is a two-lane at-grade crossing. There are typically 34 trains per day with train speed of 35 to 70 mph. Gate arms, pavement markings, train signals, and mast mounted flashing lights are provided at the crossing. There are a total of five reported incidents. Fatal accidents occurred in 2006 and 2009 and non-

fatal accidents occurred in 2001, 2015, and 2016. Both fatalities involved the commuter train.

3.13.2 REGULATORY SETTING

Existing transportation polices, laws, and regulations that would apply to the Project are summarized below. This information provides a context for the impact discussion related to the Project's consistency with applicable regulatory conditions and development of significance criteria for evaluating Project impacts.

STATE

The State of California has enacted several pieces of legislation that outline the State's commitment to encourage land use and transportation planning decisions and investments that reduce VMT and contribute to reductions in greenhouse gas (GHG) emissions in line with State climate goals. The legislation with applicability to the analysis of the Project includes:

- Assembly Bill (AB) 32 (2006);
- SB 375 (2008); and
- SB 743 (2013).

Each are discussed below, in addition to Caltrans responsibilities and VMT guidance.

Assembly Bill 32

AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires that "(a) the statewide GHG emissions limit shall remain in effect unless otherwise amended or repealed; (b) it is the intent of the Legislature that the statewide GHG emissions limit continues in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020; (c) the California Air Resources Board (CARB) shall make recommendations to the Governor and the Legislature on how to continue reductions of GHG emissions beyond 2020." Vehicle emissions are a significant source of GHGs; therefore, GHG reduction targets include reductions in vehicle emissions, providing a nexus between AB 32 and transportation analyses.

Senate Bill 375

SB 375 requires metropolitan planning organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) as part of their regional transportation plans (RTPs). The SCS demonstrates how the region will meet its GHG reduction targets through integrated land use, housing, and transportation planning. Specifically, the SCS must identify a transportation network that is integrated with the forecasted development pattern for the Project site and will reduce GHG emissions from automobiles and light trucks in accordance with targets set by the CARB.

In 2017, the State Legislature passed SB 150, which requires CARB to prepare a report beginning in 2018 and every four years thereafter analyzing the progress made by each MPO in meeting the

regional GHG emission reduction targets. The San Joaquin Council of Governments (SJCOG) serves as the MPO for Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, Tracy, and San Joaquin County. River Islands is located in the City of Lathrop and therefore is within the SJCOG MPO.

SB 375 also provides streamlining (i.e., limited CEQA review) for certain transit priority projects that are consistent with the SCS.

Senate Bill 743

SB 743 creates or encourages several statewide changes to the evaluation of transportation and traffic impacts under CEQA. First, it directs OPR to amend the CEQA Guidelines to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the new metrics beyond TPAs. The California Natural Resources Agency certified and adopted the amended CEQA Guidelines in December 2018. In the amended CEQA Guidelines, OPR selected VMT as the preferred transportation impact metric and applied their discretion to recommend its use statewide. The amended CEQA Guidelines state that “generally, VMT is the most appropriate measure of transportation impacts” and the provisions requiring the use of VMT shall apply statewide as of July 1, 2020. The amended CEQA Guidelines further state that land use “projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less-than-significant transportation impact.”

Second, SB 743 establishes that aesthetic and parking impacts of a residential, mixed-use residential, or employment center projects on an infill site within a TPA shall not be considered significant impacts on the environment.

Third, SB 743 added section 21099 to the Public Resources Code, which states that automobile delay, as described by LOS or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment upon certification of the CEQA Guidelines by the Natural Resources Agency. Since the amended CEQA Guidelines were certified in December 2018, LOS or similar measures of vehicular capacity or traffic congestion are not considered a significant impact on the environment under CEQA.

Lastly, SB 743 establishes a new CEQA exemption for a residential, mixed-use, and employment center project a) within a TPA, b) consistent with a Project for which an EIR has been certified, and c) consistent with an SCS. This exemption requires further review if the project or circumstances changes significantly.

TECHNICAL ADVISORY ON EVALUATING TRANSPORTATION IMPACTS IN CEQA

To aid in SB 743 implementation, OPR released a *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) in December 2018. The Technical Advisory provides advice and recommendations to CEQA lead agencies on how to implement the SB 743 changes. This includes technical recommendations regarding the assessment of VMT, thresholds of significance, VMT mitigation measures, and screening thresholds for certain land use projects. Lead agencies may

consider and use these recommendations at their discretion and with the provision of substantial evidence to support alternative approaches.

The Technical Advisory identifies “screening thresholds” to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. The Technical Advisory suggests that projects meeting one or more of the following criteria should be expected to have a less-than-significant impact on VMT:

- **Small projects** – projects consistent with a SCS and local general plan that generate or attract fewer than 110 trips per day.
- **Projects near major transit stops** – certain projects (residential, retail, office, or a mix of these uses) proposed within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor.
- **Affordable residential development** – a project consisting of a high percentage of affordable housing may be a basis to find a less-than-significant impact on VMT.
- **Local-serving retail** – local-serving retail development tends to shorten trips and reduce VMT. The Technical Advisory encourages lead agencies to decide when a project will likely be local-serving, but generally acknowledges that retail development including stores larger than 50,000 square feet might be considered regional-serving. The Technical Advisory suggests lead agencies analyze whether regional-serving retail would increase or decrease VMT (i.e., not presume a less-than-significant).
- **Projects in low VMT areas** – residential and office projects that incorporate similar features (i.e., density, mix of uses, transit accessibility) as existing development in areas with low VMT will tend to exhibit similarly low VMT.

The Technical Advisory also identifies the following recommended numeric VMT thresholds for residential, office, and retail projects:

- **Residential** development that would generate vehicle travel exceeding 15 percent below existing (baseline) residential VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as a regional VMT per capita or as city VMT per capita.
- **Office** projects that would generate vehicle travel exceeding 15 percent below existing regional VMT per employee may indicate a significant transportation impact.
- **Retail** projects (and other non-residential/non-office projects) that results in a net increase in total VMT may indicate a significant transportation impact.

For mixed-use projects, the Technical Advisory suggests evaluating each component independently and applying the significance threshold for each project type included. Alternatively, the lead agency may consider only the project’s dominant use.

The Technical Advisory also provides guidance on impacts to transit. Specifically, the Technical Advisory suggests that lead agencies generally should not treat the addition of new transit users as an adverse impact. As an example, the Technical Advisory suggests that “an infill development may add riders to transit systems and the additional boarding and alighting may slow transit vehicles, but

it also adds destinations, improving proximity and accessibility. Such development also improves regional vehicle flow by adding less vehicle travel onto the regional network.”

California Department of Transportation

Caltrans is responsible for planning, designing, constructing, operating, and maintaining the State Highway System (SHS). Federal highway standards are implemented in California by Caltrans. Any improvements or modifications to the SHS within the study area would need to be approved by Caltrans.

The following Caltrans planning documents emphasize the State of California’s focus on transportation infrastructure that supports mobility choice through multimodal options, smart growth, and efficient development:

- Smart Mobility Framework (Caltrans February 2010);
- Complete Streets Implementation Action Plan (Caltrans February 1, 2010);
- California Transportation Plan 2040 (Caltrans June 2016);
- Strategic Management Plan 2015-2020 – 2019 Update (Caltrans 2019); and
- State Highway System Management Plan (Caltrans May 2019).

VTM-FOCUSED TRANSPORTATION IMPACT STUDY GUIDE

On May 20, 2020, the VMT-Focused Transportation Impact Study Guide (TISG) was adopted. The TISG provides guidance on how Caltrans will review land use projects, with focus on VMT analysis and supporting state land use goals, state planning priorities, and GHG emission reduction goals. The TISG also identifies land use projects’ possible transportation impacts to the SHS and potential non-capacity increasing mitigation measures.

The TISG emphasizes that VMT analysis is Caltrans’ primary review focus, and references OPR’s Technical Advisory as a basis for the guidance in the TISG. Notably, the TISG recommends the use of the recommended thresholds in the Technical Advisory for land use projects. The TISG also references the Technical Advisory for screening thresholds that would identify projects and areas presumed to have a less-than-significant transportation impact. Caltrans supports streamlining for projects that meet these screening thresholds because they help achieve VMT reduction and mode shift goals.

INTERIM LAND DEVELOPMENT AND INTERGOVERNMENTAL REVIEW SAFETY REVIEW PRACTITIONERS GUIDANCE

On July 2, 2020, Caltrans released the Interim Land Development and Intergovernmental Review (LDIGR) Safety Review Practitioners Guidance. The purpose of the interim guidance is to provide instructions for conducting safety impact analysis for proposed land use projects and plans in compliance with CEQA. The guidance is focused on potential safety impacts affecting the SHS and sets expectations for Caltrans staff and lead agencies about what information and factors to consider in safety impact analysis. Caltrans recommends lead agencies use a similar approach, specifically Local Roadway Safety Plans (LRSPs) and Systemic Safety Analysis Reports (SSARs), as a model for

safety analysis of the local transportation network. This guidance supports implementation of SB 743 and complements the “VMT-Focused TISG” dated May 20, 2020. The new guidance has two main parts:

- Reactive: a review of Caltrans safety monitoring program data to see what known safety issues may be affected by the project; and
- Systemic: a review of LRSPs, SSARPs, Vision Zero plans, and other plans and assessments to see what safety patterns and improvements may be applicable to Caltrans facilities in the study area.

LOCAL

Envision Stockton 2040 General Plan

The Envision Stockton 2040 General Plan includes several policies and actions that are relevant to transportation and circulation. General Plan policies applicable to the Project are identified below:

POLICIES: TRANSPORTATION ELEMENT

- TR-1.1. Ensure that roadways safely and efficiently accommodate all modes and users, including private, commercial, and transit vehicles, as well as bicycles and pedestrians and vehicles for disabled travelers.
- TR-1.2. Enhance the use and convenience of rail service for both passenger and freight movement.
- TR-2.1. Develop safe and interconnected bicycle and pedestrian facilities, including along “complete” streets that target multiple travel modes.
- TR-2.2. Connect housing and employment development in areas with good transit access through open and inclusive processes where appropriate.
- TR-3.2. Require new development and transportation projects to reduce travel demand and greenhouse gas emissions, support electric vehicle charging, and accommodate multi-passenger autonomous vehicle travel as much as feasible.
- TR-4.2. Replace LOS with: (1) vehicle-miles traveled (VMT) per capita; and (2) impacts to non-automobile travel modes, as the metrics to analyze impacts related to land use proposals under the California Environmental Quality Act, in accordance with SB 743.

ACTIONS: TRANSPORTATION ELEMENT

- TR-1.1A. Direct truck traffic to designated truck routes that facilitate efficient goods movement and minimize risk to areas with concentrations of sensitive receptors, such as schools, for example by disallowing any new truck routes to pass directly on streets where schools are located, and vulnerable road users, like pedestrians and bicyclists.
- TR-1.1B. Maintain and periodically update a schedule for synchronizing traffic signals along arterial streets and freeway interchanges to facilitate the safe and efficient movement of people and goods and to provide signal priority for transit vehicles at intersections.

- TR-1.1C. Require roadways in new development areas to be designed with multiple points of access and to address barriers, including waterways and railroads, in order to maximize connectivity for all modes of transportation.
- TR-1.2C. Provide grade separations at railroad crossings on arterial streets where feasible to ensure public safety and minimize traffic delay.
- TR-2.1A. Require safe and secure bicycle parking facilities to be provided at major activity centers such as public facilities, employment sites, and shopping and office centers, along with showers and lockers for major employment sites.
- TR-2.2A. Require major new development to incorporate and fund design features to promote safe and comfortable access to transit, such as a circulation network that facilitates efficient and connected bus travel, clear pedestrian and bicycle routes connecting origins and destinations to transit stops, sheltered bus stops, park-and-ride facilities, and highly visible transit information and maps.
- TR-3.2B. Require commercial, retail, office, industrial, and multifamily residential development to provide charging stations and prioritized parking for electric and alternative fuel vehicles.
- TR-4.2A. To evaluate the effects of new development and determine mitigation measures and impact fees, require projects to evaluate per capita VMT and impacts to transit, bicycle, and pedestrian modes.

POLICY: LAND USE ELEMENT

- LU-6.4. Ensure that land use decisions balance travel origins and destinations in as close proximity as possible, and reduce vehicle miles traveled (VMT).

ACTIONS: LAND USE ELEMENT

- LU-6.4A. Maintain a reasonable balance between potential job generation and local workforce availability with a goal of one job for each employed resident.
- LU-6.4B. Maintain a reasonable proximity and balance (i.e., magnitude) between job-generating uses, housing opportunities, and resident services and amenities, including transit and active transportation.
- LU-6.4C. Reduce Vehicle Miles Traveled (VMT) per household by planning new housing in closest proximity to employment centers, improving and funding public transportation and ridesharing, and facilitating more direct routes for pedestrians and bicyclists.

3.13.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on transportation and circulation if it would result in:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); and/or
- Result in inadequate emergency access.

VMT Significance Criteria

According to interim City of Stockton guidelines, a proposed Project's VMT is considered a significant impact if the associated change to the transportation system either:

- Causes an increase in Home-Based Work VMT per worker in relation to Existing (Baseline) Conditions. For the City of Stockton, an SB 743 analysis was completed in which the Citywide Average for Daily Home-Based Work VMT per worker was determined to be 18.56 miles;
- The goal of the City of Stockton is to reduce the Daily Home-Based Work VMT per worker by 15 percent; thereby requiring any project to have an Average Daily Home-Based Work VMT per worker no greater than 15.78 miles.

Other Impacts

Evaluation of potential transportation impacts related to conflict with existing and planned facilities, transportation hazards, emergency access, and construction activity are based on a review of Project changes to the transportation network and a qualitative assessment of whether those changes would conflict with applicable standards or result in detrimental conditions based on the thresholds of significance.

ANALYSIS METHODS

This section provides an overview of the proposed Project components and addresses the proposed Project trip generation, trip distribution, and trip assignment characteristics, all of which were used for the detailed evaluation of Project impacts on the surrounding roadway network. The amount of traffic associated with the Project was estimated using a three-step process.

1. Trip Generation – The amount of vehicle traffic entering/exiting the Project site was estimated.
2. Trip Distribution – The direction trips would use to approach and depart the area was projected.
3. Trip Assignment – Trips were then assigned to specific roadway segments and intersection turning movements.

Project Description

The South Stockton Commerce Center Project proposes a Tentative Map for the 437.45-acre site to create thirteen (13) development lots, two basin lots, two open space lots, one sewer pump station

lot, and off-site sewer improvements. Of the thirteen (13) development lots, twelve (12) will be for development of a mix of industrial uses and one will be for development of commercial uses.

The SSCC Project Tentative Map proposes approximately 298 net acres of limited industrial uses. A conceptual site plan was developed to establish a target Floor Area Ratio (FAR) that was used to generate the maximum square footage of building area for the Tentative Map and environmental analysis of Vehicle Miles Traveled and Level of Service. Based on a FAR of .47, a maximum of 6,091,551 square feet of industrial type land uses could be developed throughout the site.

The SSCC Tentative Map also proposes approximately 11 acres of general commercial uses located between Airport Way and the UPRR right-of-way. Similar to the industrial uses, a conceptual site plan was developed. Based on a FAR of 0.30, a maximum of 140,350 square feet of commercial land uses could be developed in this area.

The project proposes approximately 54 acres of open space area within the site, which will include approximately seven acres of open space located east of the UPRR and south of the future Commerce Drive (refer to the Circulation Improvements discussion below).

Circulation Improvements

The Project proposes a west-east trending primary road referred to as Commerce Drive that will provide access to Airport Way to the west and the 99 Frontage Road to the east. A grade separated crossing over the UPRR right-of-way will be constructed to accommodate the primary access road and avoid conflicts with the UPRR rail line.

The majority of Commerce Drive is proposed to have a 78-foot right-of-way with one 16-foot traffic lane in each direction, and a 16-foot center turn lane. Five-foot landscaped areas would separate the traffic lanes from the 8-foot sidewalks on both the north and south sides of the road.

As Commerce Drive approaches the intersection with Airport Way, the right-of-way will be reduced to 77 feet 5 inches and provide one 16-foot westbound traffic lane, a 16-foot left turn lane, a 14-foot eastbound traffic lane, and a 16-foot eastbound traffic lane. Five-foot landscaped areas and 8-foot sidewalks would continue to be provided on both the north and south sides of the road.

The grade separated crossing over the UPRR right-of-way will be 40-feet with one 16-foot travel lane in each direction. An eight-foot pedestrian walkway will be provided on the north side of the overcrossing.

As part of the Project, a 10-foot-wide right-of-way dedication will be provided along Airport Way, adjacent to the Project site.

The Project also proposes to potentially include rail service to up to three large parcels (parcels 2, 3, and 4) within the Project site. A potential railroad spur line would extend east from the UPRR along the Project site's northern edge providing rail access to the parcels.

The 99 Frontage Road will provide access to the Arch Road and SR 99 Interchange. Airport Way will provide access to both the French Camp/Arch Road and Interstate 5 Interchange and the French Camp and the SR 99 Interchange.

Trip Generation

Several sources of trip generation information for light industrial and warehousing land uses from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10th Edition (2018 and Supplement in 2020) were reviewed. The 12 industrial land uses documented in the ITE Trip Generation Manual were reviewed and blended trip generation rates were calculated using the following land uses and percentages to determine the Project's daily, AM peak hour, and PM peak hour trip generation:

- ITE Land Use Code 110 – General Light Industrial – 7%
- ITE Land Use Code 130 – Industrial Park – 15%
- ITE Land Use Code 150 – Warehousing – 15%
- ITE Land Use Code 151 – Mini-Warehouse – 3%
- ITE Land Use Code 154 – High-Cube Transload & Short-Term Storage Warehouse – 15%
- ITE Land Use Code 155 – High-Cube Fulfillment Center Warehouse – 15%
- ITE Land Use Code 156 – High-Cube Parcel Hub Warehouse – 15%
- ITE Land Use Code 157 – High-Cube Cold Storage Warehouse – 15%

The blended trip generation rate per 1,000 square feet of industrial/warehousing was determined to be:

- 2.65 vehicle trips on a daily basis;
- 0.30 vehicle trips during the AM peak hour; and
- 0.29 vehicle trips during the PM peak hour.

For the retail/commercial land uses, ITE Land Use Code 820 (Shopping Center) was used to determine the Project's daily, AM peak hour, and PM peak hour trip generation for the retail development.

The trip generation rate per 1,000 square feet of retail/commercial was determined to be:

- 64.01 vehicle trips on a daily basis;
- 3.03 vehicle trips during the AM peak hour; and
- 5.87 vehicle trips during the PM peak hour.

Table 3.13-1 shows that the proposed Project is expected to generate approximately 22,633 net new daily trips, including 2,134 AM (with 1,567 inbound and 567 outbound) and 2,361 PM (with 779 inbound and 1,582 outbound) peak hour trips. Based on the trip generation analysis, the proposed Project is expected to generate 17,081 net new daily passenger car, truck and sport utility vehicle trips, including 1,924 AM (with 1,462 inbound and 462 outbound) and 2,071 PM (with 634 inbound and 1,437 outbound) peak hour trips. The proposed Project is expected to generate 5,552 net new daily truck trips, including 210 AM (with 105 inbound and 105 outbound) and 290 PM (with 145 inbound and 145 outbound) peak hour trips.

TABLE 3.13-1: PROJECT TRIP GENERATION ESTIMATES

LAND USE	SIZE	DAILY TRIPS	AM PEAK HOUR			PM PEAK HOUR		
			IN	OUT	TOTAL	IN	OUT	TOTAL
TRIP GENERATION RATES PER 1,000 SQUARE FEET								
Industrial & Warehousing		2.65	0.23	0.07	0.30	0.08	0.21	0.29
Retail & Commercial		64.01	1.64	1.39	3.03	2.88	2.99	5.87
TRIP GENERATION ESTIMATES								
Industrial & Warehousing	6,091,551 SF	--						
Cars		10,590	1,296	321	1,617	343	1,134	1,477
Trucks		5,552	105	105	210	145	145	290
Retail & Commercial	140,350 SF	--						
Cars		8,984	230	195	425	404	420	824
Internal Trip Reduction - 15%		1,348	35	29	64	61	63	124
Retail / Commercial Pass-By Trip Reduction for Traffic Already on Airport Way		1,145	29	25	54	52	54	106
Net New Project Generated Trips - Cars		17,081	1,462	462	1,924	634	1,437	2,071
Net New Project Generated Trips - Trucks		5,552	105	105	210	145	145	290
Total Net New Project-Generated Vehicle Trips		22,633	1,567	567	2,134	779	1,582	2,361

SOURCE: FEHR & PEERS, 2021.

Trip Distribution

Estimates of Project trip distribution were developed based on the City of Stockton Traffic Demand Model for the Existing + Project and Cumulative + Project scenarios. The trip distribution percentages are summarized in Table 3.13-2. Project trips were assigned to the roadway system based on the directions of approach and departure using the Airport Way/Commerce Drive signalized intersection.

TABLE 3.13-2: PROJECT TRIP DISTRIBUTION PERCENTAGES

DESTINATION	AM PEAK HOUR	PM PEAK HOUR
North on I-5	24%	23%
North on SR 99	16%	16%
North on S. Airport Way	6%	7%
East on Arch Road	6%	4%
South on I-5	24%	24%
South on SR 99	14%	15%
West on E. French Camp Road	3%	3%
East on E. French Camp Road	2%	2%
South on S. Airport Way	5%	6%
Total	100%	100%

SOURCE: FEHR & PEERS, 2021.

METHODOLOGY

This section describes the analysis methods used to determine impacts associated with transportation and circulation as defined by CEQA and SB 743 that would result from implementation of the Project.

VMT CEQA Guidelines

As discussed previously, LOS can no longer be used for evaluating project traffic impacts under CEQA with the passage of SB 743 and adoption of the amended CEQA Guidelines implementing SB 743 (see CEQA Guidelines Section 15064.3). Per CEQA Guidelines Section 15064.3, subdivision (c), the provisions in Section 15064.3 recommending VMT as the primary metric for analyzing traffic impacts shall apply on July 1, 2020.

This analysis relies on guidance provided in the OPR Technical Advisory (December 2018) to assess the Project's VMT impact. Specifically, this analysis considers the following:

- Does the Project meet one or more of the “screening thresholds” identified in the Technical Advisory, such that a detailed analysis is not necessary?
- If so, what information or data is available to support the conclusion that the Project meets the screening threshold and should be considered to have a less-than-significant transportation impact?

If the Project does not meet one or more of the “screening thresholds,” this analysis would proceed to a detailed analysis of the Project's VMT impact. This includes quantifying the Project's VMT generation and determining whether this VMT generation would not meet the recommended thresholds of significance in the OPR Technical Advisory or Envision Stockton 2040 General Plan policies.

VMT SCREENING ANALYSIS

The OPR Technical Advisory identifies “screening thresholds” to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. As described in the Regulatory Setting section, the Technical Advisory suggests the following projects should be expected to have a less-than-significant impact on VMT:

- Small projects;
- Projects near existing major transit stops;
- Affordable residential development;
- Local-serving retail; or
- Projects in low VMT areas.

Of these project types, only the criterion for projects located near major transit stops are codified in the updated CEQA Guidelines. The remaining criteria for small projects, affordable residential development, local-serving retail, or projects in low VMT areas are not codified in the CEQA Guidelines but are suggested by OPR based on research cited in the Technical Advisory.

The Technical Advisory states that “retail development including stores larger than 50,000 square feet might be considered regional-serving.” The proposed Project includes 140,350 gross square feet of food, retail, and commercial land uses.

CEQA Guidelines Section 15064.3, subdivision (b)(1), states that lead agencies should generally presume projects within ½-mile of an existing major transit stop or a stop along an existing high quality transit corridor will have a less-than-significant transportation impact. As the proposed Project is not located within an area that is served by transit or rail, a VMT analysis and project impacts must be identified

IMPACTS AND MITIGATION MEASURES

Impact 3.13-1: Project implementation would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) (Significant and Unavoidable)

The proposed Project does not meet the screening criteria described in the OPR Technical Advisory; therefore, a detailed VMT analysis was conducted for the proposed Project. The VMT impact analysis used the City of Stockton Travel Demand Model that was derived from the SJCOG Regional Travel Demand Model.

Roadway improvements and land use projections consistent with the SJCOG Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), City of Stockton General Plan, San Joaquin County General Plan, City of Lathrop General Plan, and City of Manteca General Plan were included in the City of Stockton Travel Demand Model.

BASELINE AND CUMULATIVE SCENARIOS

A model-wide analysis was performed to obtain daily trips and travel distance by the Transportation Analysis Zones (TAZs) that represent the retail/commercial, food, and industrial/warehousing land uses that comprise the South Stockton Commerce Center Project. The product of daily trips and travel distance was summed up to obtain VMT estimates for home-based work trips. The total VMT was then divided by the projected number of employees and the resulting home-based work VMT per employee was determined. This average home-based work VMT per employee was then compared to Baseline Conditions (18.56 miles) and Goal developed by the City of Stockton (15.88 miles) to determine the potential impact of the proposed SSCC Project to the environments as defined by CEQA and SB 743.

Table 3.13-3 summarizes the results of the VMT analysis for home-based work trips per employee for Baseline and Cumulative With Project Conditions. The following key findings are derived from this table:

- According to the City of Stockton Baseline (Existing) Travel Demand Model, the Citywide Average Daily Home-Based Work Vehicle Miles Traveled per worker is 18.56 miles. This includes a mix of employees who both live and work in the City of Stockton and employees that travel to and from neighboring cities to work in the City of Stockton.

3.13 TRANSPORTATION AND CIRCULATION

TABLE 3.13-3: VMT ANALYSIS – BASELINE VERSUS CUMULATIVE PROJECT HOME-BASED VMT PER WORKER

SCENARIO	AVERAGE HOME-BASED WORK VEHICLE MILES TRAVELED PER WORKER	DECREASE / INCREASE IN HOME-BASED WORK VEHICLE MILES TRAVELED PER WORKER	PERCENTAGE DECREASE / INCREASE
Baseline City of Stockton Travel Demand Model	18.56	--	--
General Plan – Envision Stockton 2040	19.73	+1.17	+6.3%
General Plan – Envision Stockton 2040 With SSCC Project	19.69	+1.13	+6.1%
General Plan – Envision Stockton 2040 Goal	15.78	-2.78	-15.0%
South Stockton Commerce Center Project	21.05	+2.49	+13.4%

SOURCE: FEHR & PEERS, 2021.

The following key findings are derived from this table (continued):

- The goal of the City of Stockton is to decrease the Citywide Average Daily Home-Based Work Vehicle Miles Traveled per worker from 18.56 miles to 15.78 miles, a 15.0% reduction when compared to Baseline (Existing) Conditions.
- According to the Envision Stockton 2040 General Plan Travel Demand Model, the City is projected to add a mix of jobs that would increase employment opportunities for both existing and future residents. This would improve the jobs / housing balance in the City of Stockton and theoretically reduce the Citywide Average Daily Home-Based Work Vehicle Miles Traveled per worker.
- On the other hand, based on the total increase in population compared to the total increase in employments, the Envision Stockton 2040 General Plan Travel Demand Model is projected to generate a Citywide average daily home-based work VMT per worker (19.73) that is greater than the City of Stockton's Baseline (existing) Citywide average daily home-based work VMT per worker (18.56), an increase of 6.3%.
- The proposed South Stockton Commerce Center Project would add a total of 3,200 new jobs (2,880 industrial, 130 food and 190 retail) to the southern part of the City, which is greater than what was included in the Envision Stockton 2040 General Plan Travel Demand Model for the Traffic Analysis Zones that represent the SSCC project site.
- The South Stockton Commerce Center Project's average daily home-based work vehicle miles traveled per worker is projected to be 21.05 mile for the industrial, food and retail employees that either live and work in the City of Stockton and employees that travel to and from neighboring cities to work at the SSCC Project. This is 2.49 miles (13.4%) higher when compared to Baseline (Existing) Conditions.
- The primary result of the daily home-based work VMT per worker VMT analysis is that although the proposed SSCC project's is greater than the Envision Stockton 2040 threshold (21.05 versus 19.73), the overall benefit of the SSCC project is improving the jobs / housing balance for City of Stockton residents and reducing the average home-based work vehicle miles traveled per worker from 19.73 to 19.69 (a 0.2% reduction).

CONCLUSION

The Project proposes 6,091,551 gross square feet of industrial and warehousing space, with up to 2,880 employees, and 140,350 gross square feet of food and retail space, with up to 320 employees. Based on the location of the Project site in the southeast area of the City of Stockton, the distance to and from existing and future workers who both live and work in the City of Stockton results in an average travel distance that is greater than Baseline (Existing) conditions.

Therefore, per the Technical Advisory, non-residential/non-office projects that results in a net increase in total VMT may indicate a significant transportation impact.

Implementation of the proposed Project would result in additional vehicle travel generated by the food, retail/commercial, and industrial/warehousing land uses. This would result in the average home-based work VMT per worker of 21.05 miles. This is greater than the Baseline (Existing) of 18.56 miles or Envision Stockton 2040 goal of 15.88 miles. Therefore, the impact of the proposed Project on VMT would be **potentially significant**.

Mitigation Measure 3.13-1, which requires travel demand management (TDM) strategies, would be required. Implementation of Mitigation Measure 3.13-1 is feasible because it is within the applicant's purview to implement and has been found effective in previous academic studies. However, the precise effectiveness of specific TDM strategies can be difficult to accurately measure due to a number of external factors such as types of tenants, employee responses to strategies, and changes to technology. Additionally, it is noted that with the current planned growth and development in the City of Stockton, the City's jobs-housing ratio is expected to increase in 2040, and city-wide home-based work VMT per worker is projected to increase. TDM strategies alone cannot eliminate VMT increases caused by land use imbalance in the rest of the City and greater San Joaquin County geographic area.

Within the City of Stockton and San Joaquin County, there is a requirement to prepare a TDM plan for large employers (over 150 employees). However, specific vehicle trip reduction targets or monitoring of the effectiveness of the Project-specific TDM Plan are not required by San Joaquin County as of February 2021.

The City of Stockton is currently developing Transportation Impact Analysis Guidelines (TIAG Draft 2021) that will include strategies that are intended to reduce vehicular travel to meet the requirements of SB 743. The TIAG includes provisions for TDM strategies to reduce the amount of vehicle traffic generated by new employment development by creating measures, strategies, incentives, and policies to shift employees from driving alone and have these employees be aware of and look into the ability of using other travel modes including carpooling, transit (bus and commuter tail), cycling, and walking. In addition, employees who initially arrive in a vehicle would also be encouraged to use alternative travel modes (walking and bicycling).

As part of this on-going effort, a TDM Plan will be developed based on California Air Pollution Control Officers Association (CAPCOA) strategies that evaluate any project against mode split targets and other elements outlined by the City of Stockton.

3.13 TRANSPORTATION AND CIRCULATION

In order to monitor the effectiveness of the TDM Plan, there are several viable options that may be required by the City of Stockton as part of the TIAG, including annual surveys to determine employee travel mode split and travel distance for home-based work trips, and/or the implementation of technology to determine the amount of traffic generated by and home-based work miles traveled by employees.

As part of Mitigation Measure 3:13-1, the proposed Project would be required to monitor and evaluate the effectiveness of the Project's TDM Plan and provide the results to the City of Stockton. Based on the results of the evaluation, modifications to the TDM Plan may be required by the City in order to improve effectiveness toward achieving the home-based work VMT per worker target identified in the City's TIAG.

Based on the current status of the City of Stockton's TIAG, even with the implementation of Mitigation Measure 3.13-1, the impact would remain **significant and unavoidable** when compared to the City of Stockton's VMT goal of reducing average home-based work VMT per worker from 18.56 miles to 15.66 miles.

MITIGATION MEASURE(S)

Mitigation Measure 3.13-1: *The Project applicant shall work with the City of Stockton to implement feasible Transportation Demand Management (TDM) strategies, which would decrease the VMT generated by the Project. Specific potential TDM strategies include, but are not limited to, the following:*

- *Provide public transit service, including improving San Joaquin Rapid Transit District (RTD) transit service connecting workers with existing and future residential developments;*
- *Implement a fair value commuting program or other pricing of vehicle travel and parking;*
- *TDM coordinator for large employers;*
- *Provide an employer sponsored shuttle or carpool and/or vanpool incentive programs, A vanpool will usually service employees' commute to work, while a shuttle will service nearby transit stations and surrounding commercial centers. Employer-sponsored vanpool programs entail an employer purchasing or leasing vans for employee use, and often subsidizing the cost of at least program administration. Scheduling is within the employer's purview, and rider charges shall be set on the basis of vehicle and operating cost;*
- *Provide "end-of-trip" facilities for bicycle riders to encourage the use of bicycling as a viable form of travel to destinations, especially to work. End-of-trip facilities shall include showers, secure bicycle lockers, and changing spaces.*
- *Promote walking and bicycling for employees who live and/or work in the area through the preparation of an Active Transportation Plan;*
- *Incentivize the use of alternative travel modes for travel within the project site through shared use of e-bikes and e-scooters;*
- *Allow flexible work hours and schedule classes to reduce arrivals/departures during peak hours; and*
- *Employer coordination to SJCOG's DIBs program for workers.*

The TDM Plan shall be submitted to the City for review, and the effectiveness of the TDM Plan shall be evaluated, monitored, and revised, if necessary. The TDM Plan shall include the TDM strategies which will be implemented during the lifetime of the SSCC Project and shall outline the anticipated effectiveness of the strategies. The effectiveness of the TDM Plan may be monitored through annual surveys to determine employee travel mode split and travel distance for home-based work trips, and/or the implementation of technology to determine the amount of traffic generated by and home-based work miles traveled by employees, which shall be determined in coordination with the City.

Mitigation Measure 3.13-2: *The project shall implement SJVAPCD Rule 9410. Rule 9410, which requires employers with at least 100 employees to implement a trip reduction/transportation demand management program, or ETRIP. [See Air Quality section.] ETRIP requirements are consistent with a Commute Trip Reduction program recommended by the traffic impact study as a mitigation measure. See also EIR Mitigation Measures TRANS-1 and TRANS-2, which require "end-of-trip" facilities and an employer-sponsored vanpool or shuttle.*

Impact 3.13-2: Project implementation would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities (Less than Significant)

Implementation of the proposed Project would not result in a conflict with an existing or planned pedestrian facility, bicycle facility, or transit service/facility. In addition, the Project would not interfere with the implementation of a planned bicycle facility, pedestrian facility, or transit service/facility. The Project would not cause a degradation in transit service such that service does not meet performance standards established by the transit operator.

As described in the Environmental Setting, there is currently no existing pedestrian, bicycle, or transit service/facility within the undeveloped Project area. The Envision Stockton 2040 General Plan consists of an interconnected, hierarchical system of sidewalks, on-street bike lanes, and off-street trails for pedestrians and bicyclists that provides access to this area of the City of Stockton. The Project's transportation and circulation system is designed to accommodate access to and from Airport Way via the signalized Airport Way/Commerce Drive intersection, a grade-separated Commerce Drive/UPRR overcrossing, and pedestrian/bicycle facilities connecting each of the buildings to Commerce Drive. Therefore, this impact would be ***less than significant***.

Impact 3.13-3: Project implementation would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) (Less than Significant)

Implementation of the proposed Project would not result in a geometric design feature that is inconsistent with applicable design standards for the City of Stockton. The Project would not result in a significant change to the vehicle mix or speed of traffic that is not compatible with the design of existing or planned facility design.

The Project does not propose any new roadways or transportation facilities that would be inconsistent with applicable design standards for the City of Stockton. The Project proposes an increased land use density, which would result in increased travel activity, including vehicle (cars and trucks), bicycle, pedestrian, and potentially transit trips. In order to provide access to and from the Project site, the signalized Airport Way/Commerce Drive intersection will be designed to serve all travel modes and Surface Transportation Assistance Act (STAA) vehicles. These Project-generated trips would be served by existing and planned facilities that are constructed to applicable design standards to serve these travel modes. Therefore, the proposed Project would not result in a change to the vehicle mix or speed of traffic that is not compatible with the design of existing or planned roadways and transportation facilities. This impact would be *less than significant*.

Impact 3.13-4: Project implementation would not result in inadequate emergency access (Less than Significant)

Implementation of the proposed Project would not create roadway and transportation facilities that impede access for emergency response vehicles. The Airport Way/Commerce Drive intersection and internal transportation network is designed to maintain levels of accessibility for police and fire response times, which ensures vehicles have the necessary access when responding to an emergency.

Several emergency (police and fire) services are located within the Project study area. The signalized Airport Way/Commerce Drive intersection will provide emergency vehicle pre-emption (EVP) capabilities to ensure emergency vehicle response times are maintained. In addition, the internal transportation network is designed to maintain high levels of emergency vehicle accessibility and mobility, which ensures vehicles have the necessary access when responding to an emergency. Emergency vehicles arriving from Airport Way or from the secondary access point via the SR 99 frontage road will have unimpeded access to the Project site. Therefore, this impact would be *less than significant*.

Impact 3.13-5: Project implementation would not cause impacts due to construction (Less than Significant)

Implementation of the proposed Project would involve construction activities that could cause temporary impacts to transportation facilities, including temporary roadway closures, degrading roadway pavement conditions, and temporary degradation in traffic operations during construction of the Airport Way/Commerce Drive signalized intersection. The majority of the construction activity would occur on the Project site, including the construction of the Commerce Drive/UPRR overcrossing and the internal transportation system.

Implementation of the proposed Project would consist of construction of industrial/warehousing, retail, and commercial buildings which will span over several years. During construction, there may be periods of active construction in one or more areas of the Project site, depending on the location of each building and the individual timelines for Project components. The construction of the Airport Way/Commerce Drive signalized intersection will include Traffic Management Plans (TMPs) to

reduce potential impacts to the Airport Drive corridor. Once this intersection is completed, the majority of the construction activity would occur on the Project site. Therefore, this impact would be ***less than significant***.

INTERSECTION AND FREEWAY ASSESSMENT

Even though Level of Service (LOS) is no longer the primary significance criteria for a CEQA document, the City of Stockton and Caltrans will continue to use LOS to aid in the understanding of potential major increases to vehicle delay at key signalized intersections (Policy TR-4: Effective Transportation Assessment) and determine improvements to the local and regional transportation system. Pages 22 through 57 of Appendix F present the results of Existing Conditions Impacts and Mitigation Measures and the Cumulative Conditions Impacts and Mitigation Measures.

The following intersection impacts would occur with the SSCC Project under Existing AM and PM Peak Hour Conditions:

- Impact TR-6: Intersections 11 and 12, Roth Road at I-5 Ramps
 - Implementation of identified improvements would result in LOS C/D operations during both AM and PM peak hour conditions; and
 - It should be noted that because this intersection is outside the jurisdiction of the City of Stockton, this impact would remain at a ***significant and unavoidable*** level.

The following intersection impacts would occur with the SSCC Project under Cumulative With Project AM and PM Peak Hour Conditions.

- Impact TR-7: Intersection 1, Airport Way at French Camp Road
 - The implementation of improvements would result in LOS D operations during both AM and PM peak hour conditions. With these improvements, this impact would be considered ***less-than-significant***.
- Impact TR-8: Intersection 3, Airport Way at Arch-Airport Road
 - The implementation of improvements would result in LOS D operations during both AM and PM peak hour conditions. With these improvements, this impact would be considered ***less-than-significant***.
- Impact TR-9: Intersections 11 and 12, Roth Road at I-5 Ramps
 - Implementation of additional identified improvements would result in LOS C/D operations during both AM and PM peak hour conditions; and
 - It should be noted that because this intersection is outside the jurisdiction of the City of Stockton, this impact would remain at a ***significant and unavoidable*** level.
- Impact TR-10: Airport Way At-Grade Railroad Crossing
 - Contribute a fair share towards planned grade separated crossings in the area. With implementation of this measure, the impact would be reduced to a less-than-

3.13 TRANSPORTATION AND CIRCULATION

significant level. However, as these improvements are not fully funded, the impact would remain ***significant and unavoidable***.

Under Existing Conditions, all freeway segments evaluated operate at LOS D or better and would continue to do so with the addition of South Stockton Commerce Center project-generated traffic.

In the cumulative condition, several sections of Interstate 5 are projected to operate at level of Service E during either the AM or PM peak hour. The project would increase traffic on these freeway segments by less than 5 percent, resulting in less-than-significant project-specific freeway impacts in the cumulative condition. The addition of project traffic, in combination with traffic from other approved and pending projects, cumulatively contributes to the need to improve the freeway system within Stockton. Although no project specific freeway impacts were identified, the project would pay local and regional transportation impact fees to fund improvements to the regional roadway system.

This section describes the regulatory setting, impacts associated with wastewater services, water services, storm drainage, and solid waste disposal that are likely to result from Project implementation, and measures to reduce potential impacts to wastewater, water supplies, storm drainage, and solid waste facilities. This section is based in part on the following documents, reports and studies:

- *California's Groundwater, CalRecycle Solid Waste Information System, CalRecycle Jurisdiction Diversion/Disposal Rate Summary*;
- *City of Stockton 2020 Sphere of Influence Plan/Municipal Service Review* (City of Stockton, April 2020);
- *2010 City of Stockton Urban Water Management Plan* (City of Stockton, 2011);
- *Water Master Plan* (Stockton, 2008), *City of Stockton Conceptual Storm Drain Master Plan* (City of Stockton, 2008);
- *City of Stockton NPDES Municipal Stormwater Program Stormwater Management Plan* (2009), *2035 Wastewater Master Plan* (City of Stockton, 2008);
- *Proposed Project Conditions Hydrologic and Hydraulic Assessment* (KSN, December 31, 2020);
- *Water Supply Assessment for the South Stockton Commerce Center Project* (Municipal Utilities Department, 2020).

Comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the following: Central Valley Regional Water Quality Control Board (CVRWQCB) and the California Department of Justice (CAL DOJ). Each of the comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

3.14.1 WASTEWATER SERVICES

ENVIRONMENTAL SETTING

Wastewater service is provided by the City of Stockton via their network of collection infrastructure and the Stockton Regional Wastewater Control Facility (RWCF), which is located on Navy Drive in southwest Stockton. The RWCF provides secondary and tertiary treatment of municipal wastewater from throughout the City. The remainder of the City is served by on-site septic systems, or lie outside the urban service area. As of 2015, RWCF processes an average of 33 million gallons per day (mgd). The treated wastewater is discharged into the San Joaquin River.

Wastewater Conveyance

Municipal wastewater treatment and collection services in the Stockton city limits are provided by the City of Stockton Municipal Utilities Department (COSMUD). The existing City of Stockton wastewater collection system is divided into 10 designated sub-areas or "systems." Systems 1 through 7 have been in existence for at least 15 years, and encompass the majority of the City. System 8 was intended to serve southern areas of the City, and has been partially developed; however, the majority of the area remains undeveloped. System 9 is intended to serve currently

undeveloped areas at the eastern edge of the City along Highway 99; the backbone trunk sewer and pump stations for System 9 were completed in 2007. System 10 is intended to serve northern areas of the City, and has been partially constructed; however, the majority of the area remains undeveloped. Available capacity is greatest in the northern and southern areas of the City, which largely correspond to System 10 and System 8, respectively.

The collection system in the city is comprised of gravity flow pipes sized between 6 and 36 inches. In places where topography is relatively flat or adverse for the use of gravity sewers, force mains ranging in size from 6 to 24 inches.

GRAVITY SEWERS

Current City standards call for all gravity sewers to be designed for full-pipe gravity flow. Surcharging results in sewers that do not meet this criterion under a given flow condition. For planning purposes, the available capacity is zero in gravity sewers with a predicted peak flow equal to or greater than the full-pipe gravity flow capacity. The following standards are used in the design of gravity sewers. Pipes must be sloped to produce a minimum of 2 feet per second at peak flow. Flatter slopes (as low as 0.0006 ft/ft) have been allowed for some designs in Stockton to accommodate project-specific constraints. It can be difficult to maintain the desired grade during construction of pipelines at slopes less than 0.001 ft/ft. Initial flows during the early years will be lower than the design flows, causing velocities to be lower. During design, steeper slopes should be considered where feasible. Additional maintenance or other measures may be required to control odors in sewers with initially low velocities.

FORCE MAINS

Force mains convey flow from pump stations to a downstream gravity sewer. There are approximately 158,000 lineal feet of force mains in the model, representing all city-owned force mains of significant length as well as some private pumping and force main systems. City design standards recommend that force main velocities should be limited to “around 7 feet per second (fps)” for lengths up to 300 ft, and “around 5 fps” for lengths in excess of 1,000 ft.

EXISTING PUMP STATIONS

Wastewater pumping stations are located throughout the City and are integral to the wastewater collection system. Most of the pump stations discharge to pressure sewers (force mains) that convey flow under pressure either directly to the RWCF or to a downstream gravity sewer. An existing sewer pump station is located to the west of the Project site along Airport Way.

Wastewater Treatment

Wastewater from the City is currently treated at the City of Stockton RWCF. The City owns and operates the RWCF. The City's *2035 Wastewater Master Plan* (Stockton, 2008), *City of Stockton 2008 Municipal Service Review* (Stockton, 2008), *City of Stockton Sewer System Management Plan (SSMP) (2011-2015)*, and *CRWQCB Central Valley Waste Discharge Requirements for the City of Stockton Regional Wastewater Control Facility* are the primary documents that outline the City's long term

strategy for meeting future discharge and capacity requirements for a planning horizon that extends to build-out of the General Plan. The RWCF effluent is currently regulated by CVRWQCB Order No. R5-2020-007, NPDES CA0079138. Currently, the Facility is designed to provide a discharge of up to 55 million gallons per day of tertiary treated wastewater to the San Joaquin River, within the Sacramento-San Joaquin Delta¹. The Facility consists of tertiary level wastewater treatment. After primary and secondary treatment, the wastewater undergoes tertiary treatment in facultative lagoons, constructed wetlands, two nitrifying biotowers, dissolved air floatation, mixed-media filters, and is disinfected using chlorination/dechlorination facilities. It should be noted that an amendment to the Facility's waste discharge requirements was provided in 2014, under Order R5-2020-007. Under this order, effluent limitations for electrical conductivity are removed.

WASTEWATER QUALITY

The RWCF provides primary treatment consisting of screening, grit removal, and primary sedimentation, and secondary treatment consisting of high rate trickling filters and secondary clarifiers. The secondary treated effluent is piped under the San Joaquin River to the tertiary level treatment facility, which consists of facultative ponds, engineered wetlands, two nitrifying biotowers, dissolved air flotation, mixed-media filters, and chlorination/dechlorination facilities. Several of the ponds are operated in a stand-by mode of operation as necessary, to achieve improved effluent quality by decreasing solids loading on the downstream treatment process, and by maintaining stable ammonia loading to the nitrifying biotowers.

Sludge is removed from the primary and secondary sedimentation processes to gravity thickeners for preliminary water removal, and then pumped to anaerobic digesters. After digestion, the treated sludge is pumped to a lagoon where anaerobic digestion continues. A dredge is used to pump the concentrated material from the bottom of the lagoon to a belt filter press and dewatered biosolids are removed by a private contractor for off-site agricultural reuse. Wastewater is discharged from Discharge Point No. 001 to the San Joaquin River, within the Sacramento-San Joaquin Delta.

The RWCF discharges directly into the southern portion and just upstream of the Stockton Deep Water Ship Channel (DWSC). There are two Water Quality Limited Segments (WQLSs) in this Channel, which are 303(d)-listed for: chlorpyrifos, DDT, Diazinon, Dioxin, EC, exotic species, furan compounds, group A pesticides, mercury, pathogens, PCBs, and unknown toxicity. Effluent limitations for EC, mercury, pathogens, and toxicity are included in the CVRWQCB Order No. R5-2020-007, NPDES CA0079138.

The Waste Discharge Requirements, under Order No. R5-2020-007, NPDES CA0079138, specify that effluent from the RWCF shall not exceed the quantities presented in Table 3.14-1 (Effluent Limitations).

¹ See: http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/san_joaquin/r5-2014-0054_res.pdf

3.14 UTILITIES AND SERVICE SYSTEMS

TABLE 3.14-1: EFFLUENT LIMITATIONS

CONSTITUENT	UNITS	30 DAY AVERAGE
Aluminum, Total Recoverable	µg/L	311
Ammonia, Total (as N)	mg/L	2
Bis(2-ethylhexyl)phthalate	µg/L	1.8
Chlorodibromomethane	µg/L	5.0
Total Coliform Organisms	MPN/100ml	-
Cyanide, Total Recoverable	µg/L	4.1
Dichlorobromomethane	µg/L	6.8
Manganese, Total Recoverable	µg/L	-
Molybdenum, Total Recoverable	µg/L	-
Nitrate plus Nitrite (as N)	Mg/L	40
pH	s.u.	--
Total Suspended Solids (TSS)	mg/L	10
5-Day CBOD @ 20 degree C	mg/L	10

SOURCE: 2035 WASTEWATER MASTER PLAN, PG 7-2.

Future Demand

Projected wastewater flows and loads to the RWCF at build-out conditions are provided by the Wastewater Master Plan. Domestic/commercial flow projections for average day dry weather conditions based upon a projected buildout population of 580,717 persons and a per capita flow contribution of 112.0 gallons per capita per day. Domestic/commercial Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS) contributions at average conditions were based upon per capita contributions of 0.31 and 0.30 pounds per capita per day, respectively. Average ammonia loads are based upon the current observed influent concentration of 25 mg/l. Peak flows and loads in Table 3.14-2 are based upon the use of existing observed peaking factors applied to the projected average daily loading conditions.

TABLE 3.14-2: PROJECTED WASTEWATER FLOWS AND LOADS GENERATED IN THE MASTER PLAN SERVICE AREA AT BUILDOUT CONDITIONS

PARAMETER	UNITS	AVERAGE DRY WEATHER FLOW	AVERAGE DAY MAX PER MONTH	PEAK DAY MAX PER MONTH	PEAK HOUR WET WEATHER
Flow	mgd				
Domestic/Commercial		6.5	78	126.8	164.1
Wet Industrial		5.0	7.2	11.5	12.6
Recycle		1	1.1	0.9	2.5
Totals		71.0	86.3	139.2	179.2
BOD	Lbs/day				
Domestic/Commercial		180,000	180,000	180,000	NA
Wet Industrial		24,000	62,000	24,000	NA
Recycle		-	12,000	16,000	NA
Totals		204,000	254,000	220,000	NA
TSS	Lbs/day				
Domestic/Commercial		174,000	174,000	183,000	NA
Wet Industrial		6,200	27,000	7,000	NA
Recycle		0	12,000	17,000	NA
Totals		180,200	213,000	207,000	NA
Ammonia-N	Lbs/day				
Domestic/Commercial		13,600	16,300	27,400	NA
Wet Industrial		1000	1200	2,000	NA
Recycle		200	200	300	NA

PARAMETER	UNITS	AVERAGE DRY WEATHER FLOW	AVERAGE DAY MAX PER MONTH	PEAK DAY MAX PER MONTH	PEAK HOUR WET WEATHER
Totals		14,800	17,700	29,700	NA

SOURCE: 2035 WASTEWATER MASTER PLAN, PG 7-2.

REGULATORY SETTING

Clean Water Act (CWA) / National Pollutant Discharge Elimination System (NPDES) Permits

The CWA is the cornerstone of water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

The CWA regulates discharges from "non-point source" and traditional "point source" facilities, such as municipal sewage plants and industrial facilities. Section 402 of the Act creates the NPDES regulatory program which makes it illegal to discharge pollutants from a point source to the waters of the United States without a permit. Point sources must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). NPDES permits cover industrial and municipal discharges, discharges from storm sewer systems in larger cities, storm water associated with numerous kinds of industrial activity, runoff from construction sites disturbing more than one acre, mining operations, and animal feedlots and aquaculture facilities above certain thresholds.

Permit requirements for treatment are expressed as end-of-pipe conditions. This set of numbers reflects levels of three key parameters: (1) biochemical oxygen demand (BOD), (2) total suspended solids (TSS), and (3) pH acid/base balance. These levels can be achieved by well-operated sewage plants employing "secondary" treatment. Primary treatment involves screening and settling, while secondary treatment uses biological treatment in the form of "activated sludge."

All so-called "indirect" dischargers are not required to obtain NPDES permits. An indirect discharger is one that sends its wastewater into a city sewer system, so it eventually goes to a sewage treatment plant. Although not regulated under NPDES, "indirect" discharges are covered by another CWA program called pretreatment. "Indirect" dischargers send their wastewater into a city sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering surface water.

The City's current NPDES Permit, which regulates the wastewater effluent quantity and quality upon discharge, was issued by the Central Valley Regional Water Quality Control Board, Central Valley Region, and is Order R5-2020-007 and Order CA0079138.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State is required to adopt policies, plans, and

objectives that will protect the State's waters for the use by and enjoyment of Californians. In California, the State Water Resources Control Board (SWRCB) has the authority and responsibility for establishing policy related to the State's water quality. Regional authority is delegated by the SWRCB to a Regional Water Quality Control Board (RWQCB). The Porter-Cologne Act authorizes the SWRCB and RWQCB to issue NPDES permits.

Under the Central Valley Regional Water Quality Control Board (CVRWQCB) NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge.

Envision Stockton 2040 General Plan

The Envision Stockton 2040 General Plan contains the policies related to wastewater that are applicable to the proposed Project.

POLICIES: PUBLIC FACILITIES & SERVICES ELEMENT

- PFS-2.3: Water Treatment Capacity. The City shall plan, secure funding for, and procure sufficient water treatment capacity and infrastructure to meet projected water demands.
- PFS-3.1: Sanitary Sewer Service Area. The City shall require that all new urban development is served by an adequate collection system to avoid possible contamination of groundwater from onsite wastewater disposal (septic) systems.
- PFS-3.2: Wastewater Treatment Standards. The City shall continue to take actions necessary to meet water quality discharge standards in the operation of the regional wastewater treatment plant.
- PFS-3.3: Compliance with Federal Standards for Surface Water Protection. The City shall comply with the requirements of the Clean Water Act with the intent of minimizing the discharge of pollutants to surface waters.
- PFS-3.4: Wastewater Facility Sizing. The City shall ensure through the development review process that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future.
- PFS-3.5: Wastewater Collection System Rehabilitation. The City shall ensure that when infrastructure rehabilitation projects are undertaken, upsizing of the facility and cost sharing are considered in order to accommodate upstream planned growth in accordance with an approved master plan.
- PFS-3.6: Wastewater Reuse. The City shall continue to discharge treated effluent to the Delta and reuse that water through the City's California Water Code Section 1485 water right.
- PFS-3.7: Security. City shall seek to minimize vulnerability of its wastewater collection and treatment systems to unauthorized tampering.

- PFS-3.8: Timing of Future Development. Prior to approval of any tentative subdivision map for a proposed residential project, the City shall formally consult with the wastewater system provider that would serve the proposed subdivision to make a factual showing or impose conditions in order to ensure an adequate wastewater removal system necessary for the proposed development. Prior to recordation of any final small lot subdivision map, or prior to City approval of any project-specific discretionary approval or entitlement required for nonresidential land uses, the City or the project applicant shall demonstrate, based on substantial evidence, the availability of a long-term, reliable wastewater collection system for the amount of development that would be authorized by the final subdivision map or project-specific discretionary nonresidential approval or entitlement. Such a demonstration shall consist of a written verification that existing treatment capacity is or will be available and that needed physical improvements for treating wastewater from the Project site will be in place prior to occupancy.

City of Stockton Municipal Code

The City of Stockton Municipal Code, Title 13 (Public Services), Chapter 13.12 (Wastewater User Charges and Fees) contain regulations associated with sewer management. Title 13 (Public Services), Chapter 13.12 (Wastewater User Charges and Fees), Section 13.12.190 (Payment of Fees – Responsible Party – Responsibilities of Property Owner) requires developers of property to pay a sewer facility development fee.

Utility Master Plans

The City of Stockton maintains a variety of Master Plan documents that guide the design, development, and maintenance of the utilities within the city limits. These include: *2015 City of Stockton Urban Water Management Plan* (Stockton, 2011), *2035 Wastewater Master Plan* (Stockton, 2008), *Water Master Plan* (Stockton, 2021), *City of Stockton Conceptual Storm Drain Master Plan* (Stockton, 2008), and the *City of Stockton NPDES Municipal Stormwater Program Stormwater Management Plan* (2009).

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on the environment associated with Utilities if it will:

1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
2. Require or result in the construction of new wastewater treatment and/or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
3. Result in a determination by the wastewater treatment and/or collection provider which serves or may serve the Project that it does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.

IMPACTS AND MITIGATION MEASURES

Impact 3.14-1: The proposed Project has the potential to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (Less than Significant)

WASTE DISCHARGE REQUIREMENTS (WDRs) CVRWQCB ORDER No. R5-2020-007, NPDES CA0079138.

The City of Stockton owns and operates a wastewater collection, treatment, and disposal system, and provides sanitary sewerage service to the City of Stockton. On April 1, 2020, the RWQCB adopted Waste Discharge Requirements (WDRs) Board Order Number R5-2020-0007, NPDES CA0079138, prescribing waste discharge requirements for the City of Stockton RWCF.

The RWCF provides secondary and tertiary treatment of municipal wastewater from throughout the City. The remainder of the City is served by on-site septic systems, or lie outside the urban service area. As of 2015, RWCF processes an average of 33 mgd. The treated wastewater is discharged into the San Joaquin River.

As described previously, the RWCF provides primary treatment consisting of screening, grit removal, and primary sedimentation, and secondary treatment consisting of high rate trickling filters and secondary clarifiers. The secondary treated effluent is piped under the San Joaquin River to the tertiary level treatment facility, which consists of facultative ponds, engineered wetlands, two nitrifying biotowers, dissolved air flotation, mixed-media filters, and chlorination/dechlorination facilities. Several of the ponds are operated in a stand-by mode of operation as necessary, to achieve improved effluent quality by decreasing solids loading on the downstream treatment process, and by maintaining stable ammonia loading to the nitrifying biotowers.

Sludge is removed from the primary and secondary sedimentation processes to gravity thickeners for preliminary water removal, and then pumped to anaerobic digesters. After digestion, the treated sludge is pumped to a lagoon where anaerobic digestion continues. A dredge is used to pump the concentrated material from the bottom of the lagoon to a belt filter press and dewatered biosolids are removed by a private contractor for off-site agricultural reuse. Wastewater is discharged from Discharge Point No. 001 to the San Joaquin River, within the Sacramento-San Joaquin Delta.

To account for the additional wastewater flows in the Project area after the construction of the proposed Project, additions to the existing wastewater infrastructure will be needed. The sanitary sewer collection will be by an underground collection system installed as per the City of Stockton standards and specifications. Sanitary sewer disposal will flow to the City's RWCF for treatment. Improvements include connection to existing sanitary sewer lines.

The City of Stockton's wastewater treatment system is currently in compliance with the waste discharge requirements of Order Number R5-2020-0007, NPDES CA0079138. The wastewater treatment system options covered under this Order include: City of Stockton RWCF, including discharge to the San Joaquin River. The development of the proposed Project under this permitted

option would not exceed the wastewater discharge requirements in this Order. The proposed Project is anticipated to have a *less than significant* impact relative to this topic. The allocation of wastewater service capacity is discussed in the following impact topic.

Impact 3.14-2: The proposed Project has the potential to result in a determination by the wastewater treatment and/or collection provider which serves or may serve the Project that it does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments (Less than Significant with Mitigation)

The City's *2035 Wastewater Master Plan* includes projected wastewater generation factors for commercial and industrial land uses. The *Water Master Plan Update* also provides overall projected water demand for the City of Stockton Municipal Utilities District (COSMUD) service area. Current dry weather flows at the facility are estimated to be on the order of 35 mgd. Recent improvements to the RWCF increased the average the dry weather flow capacity of the RWCF to 48 mgd. As noted previously, the Stockton RWCF uses approximately 80% of its existing permitted capacity. Future capacity improvements are planned as part of the City's ongoing commitment to provide adequate wastewater capacity for all users within its service area. Based on the generation factors for commercial and industrial lands uses in the City of Stockton, the proposed Project is estimated to generate approximately 199,240 gpd of wastewater or approximately 0.5% of the City's current 35 MGD current dry weather flow.

Municipal wastewater collection and treatment will be provided by the City of Stockton. The site is within the City Urban Service Area and has been included in the City's Wastewater Collection System Master Plan. The proposed Project would be located within System 8 sub-area of the City of Stockton wastewater collection system. This plan has anticipated the extension of municipal wastewater collection and treatment service for the Project site. Certain unit processes within the City's wastewater treatment facility are approaching their functional capacity, and expansion of the treatment facility to meet anticipated demands resulting from growth in Stockton is the subject of an ongoing planning and engineering effort. The treatment plant has adequate capacity to serve anticipated short-term development within the City, and expansion plans provide for creation of additional capacity over time to meet anticipated demands generated from the annexation area and other growth areas of the City.

Occupancy of the proposed Project would be prohibited without sewer allocation, as required by section 13.12.100, Mandatory Sanitary Service Required, of the City's Municipal Code. An issuance of sewer allocation from the City's available capacity would ensure that there would be a final determination by the wastewater treatment and/or collection provider that there is adequate capacity to serve the proposed Project's projected demand in addition to the provider's existing commitments. Additionally, any planned expansion to the RWCF with a subsequent allocation of capacity to the proposed Project would ensure that there would not be a determination by the wastewater treatment and/or collection provider that there is inadequate capacity to serve the proposed Project's projected demand in addition to the provider's existing commitments. Mitigation Measure 3.14-1 requires the Project proponent to secure adequate wastewater treatment

capacity/allocation prior to occupancy of any building which would require wastewater treatment services. Implementation of Mitigation Measure 3.14-1 would reduce this potential impact to a ***less than significant*** level.

MITIGATION MEASURE(S)

Mitigation Measure 3.14-1: *Prior to occupancy of any building that would require wastewater treatment services, the Project proponent shall secure adequate wastewater treatment capacity/allocation.*

Impact 3.14-3: The proposed Project has the potential to require or result in the construction of new wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (Less than Significant)

The wastewater collection and conveyance system that will serve the proposed Project will consist of engineered infrastructure consistent with the City's existing infrastructure requirements. Sewer will be designed to accommodate buildout of the Tidewater Area which will be served by System 13 (the portion west of SR 99). A Master Plan document was prepared by VVH Consulting Engineers and approved by the City of Stockton on August 11, 2020 as part of the Tidewater Crossing Utility Master Plan project. This Master Plan document identifies the construction of future force mains within Airport Way and a future pump station. As identified in the Master Plan, the South Stockton Commerce Center Project proposes to build only the 18-inch force main within Airport Way; the future 20-inch force main will be constructed by a future development, when needed, for the full buildout of System 13. The location of the sewer pump station shown on the proposed tentative map is based on the Master Plan documents prepared by VVH Consulting Engineers. The Tidewater Crossing Overall Sewer Master Plan is included in Appendix H of this EIR.

The proposed sewer pump station is proposed to be located at the northeast corner of Airport Way and the future Commerce Drive. A sewer line (ranging from 8 to 24 inches) will be located within the proposed Commerce Drive right-of-way. Within the western portion of Parcel 2, the sewer line within the Commerce Drive right-of-way will shift north outside of the Commerce Drive right-of-way into Parcel 2 and extend west along the southern edge of Parcel 1, continuing under the UPRR right-of-way. West of the UPRR right-of-way, the sewer line will extend into the proposed Commerce Drive right-of-way. The 24-inch sewer line within Commerce Drive will connect to a proposed 36-inch sewer line within Airport Way whereupon it will flow to a proposed regional sewer pump station located at the intersection of Airport Way and Commerce Drive. The off-site sewer improvements (including upsized gravity sewer pipeline and sanitary sewer force mains) would be located along the western site frontage on Airport Way, head north along Airport Way, and terminate in Airport Way and Industrial Drive to the north. Specifically, an 18-inch force main within Airport Way will extend from the regional sewer pump station to the intersection of Arch Airport Road and Airport Way where it will connect to a gravity pipeline. This gravity pipeline will be upsized from an existing 33-inch gravity sewer pipeline to a 48-inch gravity sewer pipeline. The 48-inch gravity pipeline will

extend to the intersection of Industrial Drive. The existing facilities, including the Stockton RWCF, have undergone environmental review and have waste discharge permits from the State.

New wastewater collection and conveyance infrastructure needed for the proposed Project will require trenching/excavation of earth, and placement of pipe within the trenches at specific locations, elevations, and gradients. The applicant will refine the wastewater collection/conveyance infrastructure design through the development of improvements plans which undergo a review by the Public Works Department to ensure consistency with the City's engineering standards. This improvement plan process will include full engineering design (i.e. location, depth, slope, etc.) of all conveyance infrastructure as well as a review of new sewer pump stations and new force mains if needed. Ultimately, the sanitary sewer collection system will be an underground collection system installed as per the City of Stockton standards and specifications. Sanitary sewer disposal and treatment will be to the RWCF.

Wastewater from the Project site will be collected and conveyed via a network of gravity flow sewer main lines serving the development. An internal pipe collection system having various diameters will be installed within the Project site and associated off-site improvement areas. These future on-site effluent collection facilities will discharge into the City system.

The wastewater treatment plant would not require upgrades or improvements in order to serve the proposed Project. While the Project would require construction of new wastewater collection and distribution facilities, the construction of these facilities would not result in significant environmental effects. The location of the facilities is contained within the boundary of the Project site and associated off-site improvement areas, and the environmental impacts of the new facilities are analyzed throughout this EIR. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

3.14.2 WATER SUPPLIES

ENVIRONMENTAL SETTING

The Project site is located within the Stockton city limits. The City of Stockton will be the water purveyor for the proposed Project. The City's water system service area includes all areas within the city limits.

The following information is contained in the Urban Water Management Plan (City of Stockton Municipal Utilities Department, 2017). The City's most recently adopted *Urban Water Management Plan* (UWMP) (the City's 2015 UWMP) was adopted by the City Council on July 12, 2016. The City's 2015 UWMP included existing and projected water demands for existing and projected future land uses to be developed within the City's Sphere of Influence through 2040. The water demand projections in the City's 2015 UWMP included existing City water demands and future water demands within the service area.

City of Stockton Water Service

This section presents the City's water service area including history and growth information for the City.

CITY OF STOCKTON WATER SERVICE AREA

As described in the City's 2015 UWMP, the City is located in the heart of the fertile central valley of California. The climate ranges from summer temperatures routinely exceeding 100°F with low humidity, and winter temperatures dipping into the 30s. Average annual rainfall is approximately 14 inches.

Dense fog is common in the area during the winter. Occasional dust storms, triggered by barren agricultural land coupled with Delta winds gusting to 30 mph, occur primarily from about March through September. Average temperature and precipitation data for Stockton is obtained from the Western Regional Climate Center (WRCC) website (www.wrcc.dri.edu). The WRCC has maintained historical climate records for from 10/1/1948 to 9/30/2010 for the Stockton area.

The City of Stockton Metropolitan Area (COSMA) is comprised of the three City of Stockton water retailers (COSMUD, California Water Service Company [Cal-Water], and San Joaquin County) and their respective service areas. The term COSMA is used only for convenience when grouping the water retailers and should not be construed as a legal entity.

The City has provided water service to North Stockton since 1954 and South Stockton since 1984. The City created COSMUD in the late 1970's for purposes of constructing, operating, and maintaining water, wastewater, and drainage facilities within the City service areas. The central Stockton water service area is owned and operated by Cal Water, which is an investor-owned public utility company regulated by the California Public Utilities Commission (CPUC). In addition, there are smaller developed areas served by San Joaquin County as two small maintenance districts within the City boundaries. Over the past 20 years, the City's responsibilities have been focused on providing

adequate wastewater and drainage service within City limits, and water service to growing areas of Stockton outside the franchise boundaries of Cal Water and the County maintenance districts.

The COSMUD currently serves 170,417 residents through approximately 49,387-metered services. Based on the total number of accounts, residential users make up about 95 percent of the total customer base, commercial, industrial and institutional users account for approximately three percent, and the remaining two percent of connections is for landscape irrigation.

CITY OF STOCKTON WATER SUPPLIES

EXISTING POTABLE WATER SUPPLIES

The City's 2015 UWMP describes the City's available water supplies. The City's water supplies include purchased water, surface water, and groundwater. The City currently receives treated water from Stockton East Water District (SEWD). In addition, a purchase agreement with the Woodbridge Irrigation District (WID) for water supply from the Mokelumne River was executed in 2008. A summary of the actual supply sources and quantities in 2015 is provided in Table 3.14-3.

TABLE 3.14-3: ACTUAL 2015 WATER SUPPLY FOR THE CITY OF STOCKTON (AFY)

WATER SUPPLY	ACTUAL VOLUME	WATER QUALITY	TOTAL RIGHT OR SAFE YIELD
Purchased water (SEWD)	4,159 ¹	Drinking water	6,380
Purchased water (WID)	4,628	Raw water	6,500
Supply from storage	--	--	--
Groundwater	6,628	Raw water	50,000
Surface water	9,428	--	33,600
Recycled water	0	--	0
Desalinated water	0	--	0
Stormwater use	0	--	0
Transfers	0	--	0
Exchanges	0	--	0
Total	24,843	--	96,480

NOTE: ¹ THE 1,486 AFY WATER WHEELED FROM SEWD TO SAN JOAQUIN COUNTY WATER SYSTEMS IS NOT INCLUDED.

SOURCE: STOCKTON 2015 UWMP (2016), TABLE 5-6.

PURCHASED WATER

The City purchases water from SEWD and WID as described in the following section.

Stockton East Water District

The City currently receives treated water from SEWD. As described in detail in SEWD's 2015 UWMP, this supply is made up of surface water from New Melones Reservoir and New Hogan Reservoir as well as groundwater. Per the terms of the Second Amended Contract with SEWD, the City's supply allocation from SEWD is based on the amount of water delivered in the previous year. Approximately three months prior to the beginning of the water year, the City reviews their current year SEWD treated water deliveries and determines whether they desire to change the agreement for the upcoming year, compared to what they received in the current water year.

With the commencement of the operation of the Delta Water Supply Project (DWSP) in 2012, the City's planned delivery and allocation of SEWD treated water was 17,500 AFY, which was 37.6

percent of SEWD's total supplies. For 2015, due to the drought and a reduction in the SEWD's supplies, the City's planned SEWD delivery and allocation was amended to 6,380 AFY, which was 31.9 percent of total SEWD supplies. The City used 5,634 AF of the SEWD supply in 2015. The City has entered into another allocation agreement with all of the parties resulting in 6,000 AF for 2016 for the City, or 30 percent of SEWD supplies during 2016. Moving forward the City will use approximately 6,000 AFY from SEWD.

If SEWD is not able to supply the City the total amount requested, the City will be allocated a proportional reduction in the amount of SEWD treated water requested for the subsequent water year.

Woodbridge ID

In 2008, the COSMUD executed a 40 year purchase agreement with WID for 6,500 AFY of water from the Mokelumne River for municipal and industrial water use within the City. This supply will augment the DWSP supply if the San Joaquin River water is not available due to environmental issues. The water is conveyed to the DWSP water treatment plant (WTP) for treatment and pumping to the water distribution system. Under this contract an additional 6,500 AFY of WID supply will become available to the City as WID-served agricultural lands in the northern part of the City are annexed to the City for municipal and industrial use at a rate of 3.0 AFY. For the analysis within the UWMP, it is assumed the WID supply will increase from 6,500 AFY to 13,000 AFY by 2025. It is assumed that the WID supply is cut back by approximately 30 percent in single dry years and the third year of a dry year period, similar to what occurred in 2015.

GROUNDWATER

The City currently has groundwater wells located in the City's North and South systems. Groundwater is used conjunctively with the City's other supply sources. With the DWSP WTP now online, the City uses less groundwater in wet and average years and increases groundwater use in dry years to make up for reductions in surface water deliveries. Groundwater is managed for long-term sustainability and supply through conjunctive use with surface water supplies. The City has determined that the sustainable groundwater yield is 0.75 AF/acre/yr, equivalent to a groundwater yield of approximately 50,000 AFY. To establish the projected groundwater supply that is reasonably available, COSMUD assumes that the reasonably available groundwater for the current water service area (38,524 acres) is pumped at 0.6 AF/acre/yr, equivalent to an annual groundwater supply of 23,100 AFY.

SURFACE WATER

The City has developed a new surface water supply, Delta water at the DWSP intake facility, from the San Joaquin River. The objective of this supply is to achieve a long-term reliable water supply from the Delta for existing and future customers. The City has rights to Delta water because portions of the COSMA fall within the legally defined Delta and the area of origin. The City's water rights application addressed a long-term planning horizon through the year 2050, requesting an ultimate diversion of 160 million gallons per day (mgd) (125,900 AFY). The State Water Resources Control Board (SWRCB) divided the water rights application into two separate applications, Application

30531A and 30531B. Application 30531A covers the initial phase of the DWSP up to 30 mgd (33,600 AFY) and the place of use is confined to the current 1990 General Plan boundary. The initial phase was granted a water right under California Water Code Section 1485. The City has a permit from the SWRCB issued on March 8, 2006 for a 33,600 AFY supply from the Sacramento/San Joaquin Delta.

The DWSP intake and water treatment plant was operational in 2012 with an initial capacity of 30 mgd (33,600 AFY). The projected capacity of the DWSP by 2035 is 90 mgd with an annual production of approximately 50,000 AFY. The DWSP will expand as needed up to 120 mgd provided water rights are granted.

The City's supply from the San Joaquin River is curtailed annually from February through June of each year due to U.S. Department of Fish and Wildlife Service and Department of Fish and Game restrictions.

California Water Code (CWC) Section 1485 Water Rights allows the City to take out of the Delta as much water as the City's wastewater treatment plant discharges into the Delta. This quantity, which fully covers the 33,600 AFY, is not restricted as long as the same amount of wastewater is discharged into the Delta. Section 1485 water may be subject to pumping restriction in some months due to fish protection.

City of Stockton Water Demand

CITY PROJECTED WATER DEMAND

The City's 2015 UWMP describes the projected City water demand through 2040. The City has developed potable water demand projections, shown in Table 3.14-4.

TABLE 3.14-4: CITY OF STOCKTON TOTAL WATER DEMAND PROJECTION

YEAR	HISTORICAL DEMAND	PROJECTED DEMAND ¹	PROJECTED DEMAND ²	PROJECTED DEMAND ³
2005	34,149	34,149	--	--
2006	34,806	--	--	--
2007	40,076	--	--	--
2008	38,143	--	--	--
2009	36,646	--	--	--
2010	33,333	--	--	--
2011	N/A	--	--	--
2012	N/A	34,961	34,961	34,961
2013	N/A	34,394	34,394	34,394
2014	N/A	29,627	29,627	29,627
2015	24,843	24,843	24,843	24,843
2016	--	26,510	--	--
2017	--	28,177	--	--
2018	--	29,844	--	--
2019	--	31,511	--	--
2020	--	33,178	34,948	33,178
2021	--	33,618	--	--
2022	--	34,059	--	--
2023	--	34,499	--	--
2024	--	34,940	--	--
2025	--	35,380	37,925	35,380

3.14 UTILITIES AND SERVICE SYSTEMS

TABLE 3.14-4: CITY OF STOCKTON TOTAL WATER DEMAND PROJECTION

YEAR	HISTORICAL DEMAND	PROJECTED DEMAND ¹	PROJECTED DEMAND ²	PROJECTED DEMAND ³
2026	--	36,147	--	--
2027	--	36,915	--	--
2028	--	37,682	--	--
2029	--	38,450	--	--
2030	--	39,217	39,800	37,743
2031	--	39,723	--	--
2032	--	40,230	--	--
2033	--	40,736	--	--
2034	--	41,243	--	--
2035	--	41,749	42,473	40,274
2036	--	42,292	--	--
2037	--	42,835	--	--
2038	--	43,379	--	--
2039	--	43,922	--	--
2040	--	44,465	45,325	42,989

NOTES:

(1) DEMANDS BASED ON UNIT WATER DEMANDS AND PROJECTED NUMBER OF CONNECTIONS (AFY), AS PROVIDED BY THE 2015 UWMP.

(2) 2015 UWMP VALUES BEFORE SBX7-7 (AFY) (3) 2015 UWMP VALUES AFTER SBX7-7 (AFY).

SOURCE: WATER SUPPLY ASSESSMENT FOR THE SOUTH STOCKTON COMMERCE CENTER DEVELOPMENT PROJECT (CITY OF STOCKTON MUNICIPAL UTILITIES DEPARTMENT, 2020)

Several steps, including demand reduction, are being taken to help ensure an adequate water supply for the City. The City's 2015 UWMP provides a discussion of how the City is evaluating and implementing the eight Demand Management Measures (DMM) required by the Urban Water Management Planning Act. These DMMs include water waste prohibition, metering, conservation pricing, public education and outreach, programs to assess and manage COSMUD distribution system real loss, water conservation program coordination and staff support, other demand management measures, and planned implementation to achieve water use targets.

Summary

The COSMA has and will continue to meet annual demands during differing hydrologic periods with surface water, groundwater, water conservation, and/or other potential water supplies such as non-potable supplies from local communities, raw surface water from local irrigation districts, and/or water from future groundwater storage projects. Currently, the COSMUD, along with the other COSMA retailers, are pursuing an extension of a raw surface water transfer agreement with local irrigation districts and municipalities. The City recently completed a feasibility study and is currently investigating the possible use of tertiary treated recycled water from the City of Lodi for use as a non-potable source for irrigation of public landscape areas. Any future surface water transfer supplies would be diverted for treatment at the SEWD WTP or the DWSP WTP.

GROUNDWATER BASIN

The groundwater basin underlying San Joaquin County is part of the contiguous Central Valley aquifer system, which supplies groundwater to agricultural, domestic, and industrial water users extending from about Redding to Bakersfield. The basin consists of Pre-Tertiary igneous and metamorphic rocks of the Sierra Nevada that continue west beneath the valley floor. Marine sediments, thousands of feet thick, overlie the basement rocks. Continental deposits overlie the

marine rocks and act as the primary freshwater aquifer in the study area. In local areas, fresh water may be present in both marine and continental deposits, and saline water may be found in continental deposits.

DWR Bulletin 146 identifies the usable aquifer in the eastern portion of San Joaquin County as the continental deposits of Miocene and younger age. The usable aquifer is present within the boundaries of the county in distinct geologic formations that include the Mehrten Formation, the Laguna Formation, the Victor Formation, flood basin deposits, and alluvial fan and stream channel deposits. The thickness of the usable aquifer ranges from less than 100 feet in the eastern edge of the county to over 3,000 feet in the southwestern edge, and is approximately 1000 feet beneath Stockton.

Groundwater in the County area moves from sources of recharge to areas of discharge. Most recharge to the aquifer system occurs from the Delta and along active stream channels where extensive sand and gravel deposits exist. Consequently, the highest groundwater elevations typically occur near the Delta, the Stanislaus River, and the Mokelumne River. Other sources of recharge within the Project area include subsurface recharge from fractured geologic formations to the east, as well as deep percolation from applied surface water and precipitation.

Municipal and agricultural uses of groundwater within the County contribute to an overall average yield of groundwater estimated to be 761,828 AFY for agricultural uses and 47,493 AFY for municipal and industrial uses (DWR Bulletin 118, 2006). Historically, groundwater elevations have declined from about 40 to 60 feet averaging approximately 1.7 feet per year. As a result, a regional cone of depression has formed in Eastern San Joaquin County creating a gradient that allows saline water underlying the Delta region to migrate northeast within the southern portions of the City. Groundwater underlying the City generally flows to the east due to the regional cone of depression.

COSMUD Groundwater

The COSMUD currently exercises (and will continue to exercise) its rights as an overlying groundwater appropriator to extract groundwater from the groundwater basin underlying the COSMA for delivery to its customers.

Water Reliability

This section provides a comparison of normal, single dry, and multiple dry water year supplies and demands for the City. Water supply reliability is an important component of the water management planning process. Factors contributing to inconsistency in the City's water supplies include legal limitations due to water rights and contracts limiting the quality of water available to the City, environmental constraints, and reductions in availability due to climatic factors.

It is assumed that the City's groundwater supply will be used conjunctively with the surface water and purchased water supplies. In years when surface water and purchased water is available, they will be used to the fullest extent. This will allow the City to minimize the use of groundwater.

3.14 UTILITIES AND SERVICE SYSTEMS

DRY YEAR WATER SUPPLY AVAILABILITY AND RELIABILITY

The Stockton area has experienced drought conditions twice in the past 30 years. The first drought was in 1977, the first year the SEWD Water Treatment Plant (WTP) went on-line. Groundwater supplies were critically overdrafted during this time, raising higher concerns of saline intrusion and pesticide migration. The second was a prolonged drought from 1987 to 1994. During this period, a reduced amount of surface water was available for the City. As a result of the reduced surface water through SEWD, the City's urban water retailers relied heavily on groundwater to meet customer water demands. The groundwater level during this time dropped approximately 10 to 30 feet at various well sites.

The City Council adopted a Water Conservation Ordinance in 1988. Stockton Municipal Code, Sections 13.28 and 13.32 include both voluntary and mandatory conservation stages. From 1990 to 1992, mandatory water reduction stages were in force due to the prolonged years of drought. The City initiated a voluntary reduction stage in 1993 and has maintained a voluntary reduction stage since that time.

TABLE 3.14-5: SUMMARY OF PROJECTED WATER SUPPLY DURING HYDROLOGIC NORMAL, SINGLE-DRY, AND MULTI-DRY YEARS FOR CITY OF STOCKTON AT 2040 (AFY)

	<i>NORMAL YEAR</i>	<i>SINGLE DRY YEAR</i>	<i>MULTIPLE DRY YEARS – YEAR 1</i>	<i>MULTIPLE DRY YEARS – YEAR 2</i>	<i>MULTIPLE DRY YEARS – YEAR 3</i>
SEWD	6,000	4,000	6,000	6,000	4,000
DWSP	13,000	9,000	13,000	13,000	9,000
DELTA	50,000	50,000	50,000	50,000	50,000
GROUNDWATER	23,100	23,100	23,100	23,100	23,100
RECYCLED WATER	0	0	0	0	0
TOTAL SUPPLY	92,100	86,100	92,100	92,100	86,100
DEMAND TOTAL	44,465	44,465	44,465	44,465	44,465
DIFFERENCE	47,635	41,635	47,635	47,635	41,635

SOURCE: STOCKTON 2015 UWMP (2016), TABLES 6-4, 6-5, AND 6-6.

WATER SUPPLY AND DEMAND COMPARISON

Based on the analysis described above, the City's existing and projected potable water supplies are sufficient to meet the City's existing and projected future potable water demands, including those future water demands associated with the Project, to the year 2040 under all hydrologic conditions.

A comparison of the City's projected water supplies and demands is shown in Table 3.14-6 for Normal, Single Dry, and Multiple Dry Years. As can be seen on Table 3.14-6, there is no projected supply deficit under the projected hydrologic conditions through 2040.

TABLE 3.14-6: CITY OF STOCKTON - NORMAL YEAR PROJECTED WATER SUPPLY AND DEMAND COMPARISON (AFY)

YEAR	2020	2025	2030	2035	2040
<i>WATER DEMAND VERSUS SUPPLY FOR NORMAL HYDROLOGIC YEARS</i>					
Supply Totals	69,200	75,700	75,700	92,100	92,100
Demand Totals	34,564	36,856	39,217	41,749	44,465
Difference	34,546	38,844	36,483	50,351	47,635
<i>WATER DEMAND VERSUS SUPPLY FOR SINGLE-DRY HYDROLOGIC YEARS</i>					
Supply Totals	65,200	69,700	69,700	86,100	86,100
Demand Totals	34,654	36,856	39,217	41,749	44,465
Difference	30,546	32,844	30,483	44,351	41,635
<i>WATER DEMAND VERSUS SUPPLY FOR MULTIPLE-DRY HYDROLOGIC YEARS (YEAR 3)</i>					
Supply Totals	65,200	69,700	69,700	86,100	86,100
Demand Totals	34,654	36,856	39,217	41,749	44,465
Difference	30,546	32,844	30,483	44,351	41,635

SOURCE: STOCKTON 2015 UWMP (2016), TABLES 6-4, 6-5, AND 6-6.

REGULATORY SETTING

Safe Drinking Water Act

The federal Safe Drinking Water Act, as passed in 1947 and amended in 1986 and 1996, is the Country's primary law regulating drinking water quality and is implemented by the United States Environmental Protection Agency (US EPA). The Safe Drinking Water Act authorizes the US EPA to set national health-based standards for drinking water and requires actions to protect drinking water and its sources. Additionally, it provides for treatment, monitoring, sampling, analytical methods, reporting, and public information requirements. Implementation of the Act, in California, is under the jurisdiction of the California Department of Public Health (CDPH), Division of Drinking Water and Environmental Management. Drinking Water regulations are set forth in the California Code of Regulations (CCR), Titles 7 and 22.

Water Conservation Projects Act

California's requirements for water conservation are codified in the Water Conservation Projects Act of 1985 (Water Code Sections 11950 – 11954).

Consistent with California Water Code Sections 11950 – 11954, the City has implemented various water conservation efforts, as well as Water Shortage Contingency Plan that identifies actions that can be taken to respond to catastrophic interruption of water supply.

California Water Code

Water Code section 10910 states:

10910(c)(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f) and (g).

10910(d)(1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts.

10910(d)(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall be demonstrated by providing information related to all of the following:

- (A) Written contracts or other proof of entitlement to an identified water supply.*
- (B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.*
- (C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.*
- (D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.*

10910(e) If no water has been received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts, the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall also include in its water supply assessment pursuant to subdivision (c), an identification of the other public water systems or water service contract-holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has identified as a source of water supply within its water supply assessments.

Additionally, Water Code section 10910 states:

10910(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment.

10910(f)(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

10910(f)(2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long term overdraft condition.

10910(f)(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historical use records.

A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historical use records.

10910(f)(4) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project.

A water assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

Senate Bill (SB) 610

Senate Bill (SB) 610 was adopted in 2001 and reflects the growing awareness of the need to incorporate water supply and demand analysis at the earliest possible stage in the land use planning process. SB 610 amended the statutes of the Urban Water Management Planning Act, as well as the

3.14 UTILITIES AND SERVICE SYSTEMS

California Water Code Section 10910 et seq. The foundation document for compliance with SB 610 is the Urban Water Management Plan (UWMP), which provides an important source of information for cities and counties as they update their general plans. Likewise, planning documents such as general plans and specific plans form the basis for the demand information contained in an UWMP, as well as a Water Supply Assessment required under SB 610.

Water Code Section 10910 (c)(4) states “If the city or county is required to comply with this part pursuant to subdivision (b), the water assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.”

Water supply planning under SB 610 requires reviewing and identifying adequate available water supplies necessary to meet the demand generated by a project, as well as the cumulative demand for the general region over the next 20 years, under a broad range of water conditions. This information is typically found in the current UWMP for the project area. SB 610 requires the identification of the public water supplier for a project.

In addition, SB 610 requires the preparation of a Water Supply Assessment if a project meets the definition of a “Project” under Water Code Section 10912 (a). The code defines a “Project” as meeting any of the following criteria:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A commercial building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A hotel or motel with more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park, planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed-use project that includes one or more of these elements; or
- A project creating the equivalent demand of 500 residential units.

Alternately, if a public water system has less than 5,000 service connections, the definition of a “Project” includes any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of service connections for the public water system.

Based on the following assumptions, SB 610 does apply to the proposed Project:

1. The proposed Project is subject to CEQA and an EIR is required.
2. The proposed Project, having more than 650,000 square feet of floor area, meets the definition of a “Project” as specified in Water Code section 10912(a) paragraph (5) as defined for industrial development.

The proposed Project has not been the subject of a previously adopted Water Supply Assessment (WSA) and has not been included in an adopted WSA for a larger project. Thus, a WSA, as required by these criteria under SB 610, has been prepared for the Project. The Water Supply Assessment is included in Appendix F of this EIR.

Envision Stockton 2040 General Plan

The Envision Stockton 2040 General Plan contains the policies related to water supply that are applicable to the proposed Project.

POLICY: LAND USE ELEMENT

- LU-1.13. Growth Phasing. The City shall phase growth based on the availability of adequate water supplies, market forces, infrastructure financing capacity, and the timing of the design, approval, and construction of water supply and transportation facilities and other infrastructure.

POLICIES: PUBLIC FACILITIES AND SERVICES ELEMENT

- PFS-2.1. Water Conservation. The City shall continue to implement water conservation programs that save significant amounts of water at a reasonable cost.
- PFS-2.2. Water Supply. The City shall evaluate long-term water supply strategies, including acquiring or developing additional water supplies that would be available during drought periods, to offset the shortages anticipated from existing supplies, and improved water conservation and re-use. For new development, the City will require the installation of non-potable water infrastructure for irrigation of large landscaped areas where feasible and cost effective. Conditions of approval will require connection and use of non-potable water supplies when available at the site.
- PFS-2.5. Water Quality. The City shall monitor water quality regularly to ensure that safe drinking water standards are met and maintained in accordance with State and EPA regulations and take necessary measures to prevent contamination.
- PFS-2.6. Level of Service. The City shall maintain adequate levels of water service by preserving, improving, and replacing infrastructure as necessary.
- PFS-2.7. Water Supply for New Development. The City shall ensure that water supply capacity and infrastructure are in place prior to granting building permits for new development.
- PFS-2.8. Delta Water Supply. The City shall not approve new development that relies on water from the Delta Water Supply Project until this Delta water is allocated through a water right to the City by the State of Water Resources Control Board or a replacement water supply is secured.
- PFS-2.10. Sustainability of Surface Water Supplies. The City shall work in concert with other water purveyors in the region to seek long-term renewable surface water contracts, and shall take actions to acquire, protect, and expand surface water rights to serve growing water demands.

- PFS-2.11. Sustainability of Groundwater Supplies. The City shall work in concert with other water purveyors in the region to achieve the target yield (0.6 AF/year) of the drinking water aquifer, and shall limit its long-term average groundwater withdrawals to this target yield.
- PFS-2.12. Water for Irrigation. The City shall encourage the use of non-potable water supplies for irrigation of landscape.
- PFS-2.13. Timing of Future Development. Prior to approval of any tentative small lot subdivision map for a proposed residential project of more than 500 dwelling units, the City shall comply with Government Code Section 66473.7. Prior to approval of any tentative small lot subdivision map for a proposed residential project of 500 or fewer units, the City need not comply with Section 66473.7 or formally consult with the public water system that would provide water to a proposed subdivision, but shall nevertheless make a factual showing or impose conditions similar to those required by Section 66473.7 in order to ensure an adequate water supply for development authorized by the map. Prior to recordation of any final small lot subdivision map, or prior to City approval of any project-specific discretionary approval or entitlement required for nonresidential land uses, the City or the project applicant shall demonstrate, based on substantial evidence, the availability of a long-term, reliable water supply from a public water system for the amount of development that would be authorized by the final subdivision map or project-specific discretionary nonresidential approval or entitlement. Such a demonstration shall consist of a written verification that existing sources are or will be available and that needed physical improvements for treating and delivering water to the Project site will be in place prior to occupancy.

Utility Master Plans

The City of Stockton maintains a variety of Master Plan documents that guide the design, development, and maintenance of the utilities within the city limits. These include: *2010 City of Stockton Urban Water Management Plan* (Stockton, 2011), *2035 Wastewater Master Plan* (Stockton, 2008), *Water Master Plan* (Stockton, 2021), *City of Stockton Conceptual Storm Drain Master Plan* (Stockton, 2008), and the City of Stockton NPDES Municipal Stormwater Program Stormwater Management Plan (2009).

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project may have a significant impact on the environment associated with Utilities if it would:

1. Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
2. Have insufficient water supplies available to serve the Project from existing entitlements and resources, or if new or expanded entitlements are needed.

IMPACTS AND MITIGATION MEASURES

Impact 3.14-4: The proposed Project has the potential to require construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (Less than Significant)

The provision of public services and the construction of onsite infrastructure improvements will be required to accommodate the development of the proposed Project. Water distribution will be by an underground distribution system to be installed as per the City of Stockton standards and specifications.

The Project proposes a 24-inch water line to be located within the proposed Commerce Drive right-of-way. The proposed water line will connect to the existing City of Stockton water main in Airport Way and travel east along the proposed Commerce Drive right of way to the 99 Frontage Road. At this point, as part of the Newcastle Road and South Airport Way Water Transmission Main Project, the 24-inch water line will travel east to Newcastle Road and tie into the City's existing water line. Environmental impacts associated with the Newcastle Road and South Airport Way Water Transmission Project installation and operation were analyzed as part of a Mitigated Negative Declaration (SCH No. 2009042082), dated April 2010. It is noted that the alignment for this water transmission line is being realigned from what was originally anticipated. A portion of the realignment is within the Project site and analyzed as part of the overall infrastructure for the proposed Project. The balance of the water transmission line realignment that is outside of the Project site is being analyzed under a separate CEQA document that is currently being prepared.

The Project also proposes a 12-inch water service line to be located with the Commerce Drive right of way, parallel to the 24-inch water transmission main. The proposed 12-inch water line will connect to the proposed 24-inch water line just west of the 99 Frontage Road and will travel west along the proposed Commerce Drive right of way. The 12-inch line will connect back into the 24-inch transmission line on the east of the existing railroad tracks before the start of the grade separated structure. Water services for the proposed project will tie directly into the proposed 12-inch main, unless an alternative method is approved by the City of Stockton through a Water Master Plan. An example of a possible alternative method would be to provide services to the Project through 12-inch minimum diameter service stubs connected directly to the 24-inch transmission main. This would eliminate the need for a separate, parallel water main within Commerce Drive.

The proposed Project would require extension of offsite water conveyance infrastructure to the Project site for potable water and irrigation water. All offsite water utility improvements will be in or adjacent to existing roadways along the perimeter of the Project site, thereby limiting any potential impact to areas that were not already disturbed. Water supply will be provided by the City of Stockton, which includes surface and ground water supplies. Water distribution will be by an underground distribution system installed as per the City of Stockton standards and specifications. Underground potable water pipelines (24 inch) would be extended to the Project site as part of the Newcastle Water Main Extension Project.

The proposed Project would also require the construction of new onsite water conveyance infrastructure for potable water and irrigation water. The Newcastle Water Line Project, an approved Capital Improvement Project within the City of Stockton, will run through the Project site within the future right-of-way of Commerce Drive to serve existing and future development in the area. This Capital Improvement Project is intended to accommodate additional projects and induce growth outside of the proposed Project area. However, this Capital Improvement Project was previously analyzed and contemplated for growth and service capacity within the City's Water Master Plan and therefore, construction of the onsite potable water infrastructure would not have the potential to induce growth beyond what was already analyzed within the City's Master Plans. It should be noted that the potential environmental impacts associated with off-site infrastructure improvements associated with the larger Tidewater Crossing Project, which included the SSCC Project site, were analyzed as part of the Tidewater Crossing Project Environmental Impact Report (SCH No. 2005122101) certified on October 28, 2008. The Tidewater Crossing Project and the associated infrastructure improvements are considered baseline conditions.

The proposed Project would not require the construction of new water treatment facilities or expansion of existing water treatment facilities for water service. While the Project would require construction of new water collection and distribution facilities, the construction of these facilities would not result in significant environmental effects. The environmental impacts of the new facilities are analyzed throughout this EIR. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Impact 3.14-5: The proposed Project has the potential to have insufficient water supplies available to serve the Project from existing entitlements and resources (Less than Significant)

PROJECT WATER DEMAND

Based on the analysis described in Table 3.13-5, the WSA conducted as part of the EIR analysis demonstrates that the City's existing and projected potable water supplies are sufficient to meet the City's existing and projected future potable water demands, including those future water demands associated with the Project, to the year 2040 under all hydrologic conditions.

A comparison of the City's projected water supplies and demands is shown in Table 3.14-6 for Normal, Single Dry, and Multiple Dry Years. As can be seen on Table 3.14-6, there is no projected supply deficit under the projected hydrologic conditions through 2040.

The proposed Project, if approved by the City, is capable of being served by the City from the City's existing and future portfolio of water supplies. The water supply for the proposed Project will have the same water supply reliability and water quality as the water supply available to each of the City's other existing and future water customers.

The City has adequate water supplies to support existing demand in the City in addition to the proposed Project under average daily and maximum daily demand conditions. Water demand for current and proposed uses in the City of Stockton is approximately 26,319 AFY (in Year 2015). The City has a total supply of 96,480 AFY (Year 2015), leaving 70,161 AFY available.

According to the WSA prepared for the project, the proposed Project's water demand would be approximately 626 AFY.

A comparison of the City's projected water supplies and demands is shown in Table 3.14-6 for Normal, Single Dry, and Multiple Dry Years. The supply-demand difference in Table 3.14-6 indicates that the City will have sufficient water to meet its customers' needs through 2040.

CONCLUSION

The Water Supply Assessment completed for the proposed Project demonstrates that the City's existing and additional potable water supplies are sufficient to meet the City's existing and projected future potable water demands to the year 2040 under all hydrologic conditions.

As identified above, the proposed Project would not result in insufficient water supplies available to serve the project from existing entitlements and resources. Therefore, the proposed Project would result in a ***less than significant*** impact to water supplies.

3.14.3 STORM WATER

ENVIRONMENTAL SETTING

The following information was provided in the *City of Stockton Conceptual Storm Drain Master Plan* (2008), the *City of Stockton NPDES Stormwater Management Plan* (2009), the *City of Stockton National Pollutant Discharge Elimination System Municipal Stormwater Program* (2015), the *City of Stockton Municipal Service Review* (2008), and contained in other City resources.

Existing City Facilities

The City of Stockton provides and maintains a system of storm drains, detention basins, and pumping facilities as well as monitoring and control of the operations of the storm drain system. Additionally, the City enforces storm drain regulations established by the US EPA and the State of California.

The City of Stockton Stormwater Utility Division operates and maintains 620 miles of pipe, 72 pump stations, and over 100 discharge pipes that collect and route runoff from the City of Stockton's streets and gutters and into local rivers, creeks, and sloughs. The City of Stockton operates under Municipal Stormwater Permit Requirements Order No. R5- 2016-0040.

The Stormwater Utility Division also manages the City's National Pollutant Discharge Elimination Permit (NPDES) and all the monitoring, testing, education, and programs required under the permit.

The NPDES Stormwater Program regulates stormwater discharges from three potential sources:

- construction activities,
- industrial activities, and
- municipal stormwater system.

CITY OF STOCKTON MUNICIPAL STORMWATER SYSTEM

The City of Stockton Sphere of Influence (SOI) is situated just east of the Sacramento-San Joaquin Delta, a low-lying region of sloughs and channels connecting local waterways with the Suisan Bay and the San Francisco Bay. The city and surrounding areas within the SOI depend on creeks, rivers, and sloughs to collect and convey storm runoff to the San Joaquin River and the Delta. The primary watercourses that drain the SOI include: San Joaquin River, Bear Creek, Mosher Slough, Five Mile Slough, Fourteen Mile Slough, Calaveras River and Stockton Diverting Canal, Smith Canal, and French Camp and Walker Sloughs. Most storm drains and pump stations within the service area have adequate capacity to collection stormwater drainage (City of Stockton MSR, 2008).

Stormwater runoff occurs when precipitation from rain and snow melts and does not absorb into the ground. As the runoff flows over the land or impervious surfaces (paved streets, parking lots, and building rooftops), it accumulates debris, chemicals, sediment, and other pollutants that could adversely affect water quality. Stockton's stormwater is collected in catch basins and transported, untreated, directly into our local rivers, creeks, and sloughs, and eventually to the Delta. Best

management practices (BMPs) are the primary method to stop contaminants from entering the system.

Municipal Separate Storm Sewer System (MS4) permits are required under the Clean Water Act and require the discharger to develop and implement a Storm Water Management Plan to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP). The management plans specify what BMPs will be used to address certain program areas: such as public education and outreach, illicit discharge detection and elimination, construction and post-construction, and good housekeeping for municipal operations.

Each year, the City is required to provide an Annual Report to the State on their Stormwater Program and BMPs.

CONSTRUCTION ACTIVITIES

Operators of construction sites that are one acre or larger, including smaller sites part of a larger common plan of development, are monitored under the State's Construction General Permit. The Stormwater Program also requires specific control measures for post-construction runoff from new developments and redeveloped areas.

The Stormwater Quality Control Criteria Plan (SWQCCP) provides development standards on these controls, including general site control measures, site-specific source control measures, and treatment control measures for the following:

- Home subdivisions with 10 or more housing units
- Commercial developments with impervious areas greater than 5,000 sq. ft.
- Automotive repair shops with impervious areas greater than 5,000 sq. ft.
- Restaurants
- Parking lots greater than 5,000 sq. ft. or with 25 or more parking spaces
- Streets and roads with one acre or more of impervious area
- Retail gas outlets with 5,000 or more sq. ft. of impervious area

INDUSTRIAL ACTIVITIES

The Stormwater Program works with local industries to prevent stormwater pollution using:

- Inspections of industrial sites,
- Record review of Stormwater Pollution Prevention Plans (SWPPPs) annual reports, and conditions of acceptance,
- Wet and dry weather sampling, and
- Complaint investigation.

Industrial companies may require authorization under an NPDES industrial stormwater permit for stormwater discharges.

REGULATORY SETTING

Clean Water Act

The Clean Water Act (CWA) regulates the water quality of all discharges into waters of the United States including wetlands, perennial and intermittent stream channels. Section 401, Title 33, Section 1341 of the CWA sets forth water quality certification requirements for “any applicant applying for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters.” Section 404, Title 33, Section 1344 of the CWA in part authorizes the U.S. Army Corps of Engineers to:

- Set requirements and standards pertaining to such discharges: subparagraph (e); Issue permits “for the discharge of dredged or fill material into the navigable waters at specified disposal sites”: subparagraph (a);
- Specify the disposal sites for such permits: subparagraph (b);
- Deny or restrict the use of specified disposal sites if “the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies and fishery areas”: subparagraph (c);
- Specify type of and conditions for non-prohibited discharges: subparagraph (f);
- Provide for individual State or interstate compact administration of general permit programs: subparagraphs (g), (h), and (j);
- Withdraw approval of such State or interstate permit programs: subparagraph (i);
- Ensure public availability of permits and permit applications: subparagraph (o);
- Exempt certain Federal or State projects from regulation under this Section: subparagraph (r); and,
- Determine conditions and penalties for violation of permit conditions or limitations: subparagraph (s).
- Section 401 certification is required prior to final issuance of Section 404 permits from the U.S. Army Corps of Engineers.

The California State Water Resources Control Board and RWQCBs enforce State of California statutes that are equivalent to or more stringent than the Federal statutes. RWQCBs are responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters including the San Joaquin River, and other waters in the Stockton Planning Area. In the Stockton Planning Area, the RWQCB is responsible for protecting surface and groundwater from both point and non-point sources of pollution. Water quality objectives for all of the water bodies within the Stockton Planning Area were established by the RWQCB and are listed in its Basin Plan.

National Pollutant Discharge Elimination System (NPDES)

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges of pollutants to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, the ocean, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.)

The RWQCB issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the Environmental Protection Agency Regional Administrator. The terms of these NPDES permits implement pertinent provisions of the Federal Clean Water Act and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWA.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and are therefore to be updated regularly. The rapid and dramatic population and urban growth in the Central Valley Region has caused a significant increase in NPDES permit applications for new waste discharges. To expedite the permit issuance process, the SWRCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The SWRCB has issued general permits for stormwater runoff from industrial and construction sites statewide. Stormwater discharges from industrial and construction activities in the Central Valley Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

A new Phase II Small Municipal Separate Storm Sewer (MS4) General Permit was adopted by the State Water Resources Control Board on February 20, 2020 and became effective April 1, 2020. The Permit has numerous new components and the City is required to implement these components in stages over the five year period of the Permit.

Federal Emergency Management Agency (FEMA)

San Joaquin County is a participant in the National Flood Insurance Program (NFIP), a Federal program administered by FEMA. Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Communities are occasionally audited by the Department of Water Resources to insure the proper implementation of FEMA floodplain management regulations.

Department of Water Resources

The Department of Water Resources' (DWR) major responsibilities include preparing and updating the California Water Plan to guide development and management of the State's water resources, planning, designing, constructing, operating, and maintaining the State Water Resources Development System, protecting and restoring the Sacramento-San Joaquin Delta, regulating dams, providing flood protection, assisting in emergency management to safeguard life and property, educating the public, and serving local water needs by providing technical assistance. In addition, the DWR cooperates with local agencies on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of ground and

surface water; facilitates voluntary water transfers; and, when needed, operates a State drought water bank.

California Water Code

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resource Control Board (SWRCB) and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region the regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

The Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

(a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:

- (1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.
- (2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.
- (3) A person operating, or proposing to construct, an injection well.

(b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.

(c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

Water Quality Control Plan for the Central Valley Region

The Water Quality Control Plan for the Central Valley Region (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term “water quality standards,” as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region’s ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

200-Year Flood Protection in Central Valley

Both State policy and recently enacted State legislation (Senate Bill 5) call for 200-year (0.5% annual chance) flood protection to be the minimum level of protection for urban and urbanizing areas in the Central Valley. Senate Bill 5 (SB5) requires that the 200-year protection be consistent with criteria used or developed by the Department of Water Resources. SB 5 requires all urban and urbanizing areas in the Sacramento and San Joaquin Valleys to achieve 200-year flood protection in order to approve development. The new law restricts approval of development after 2015 if “adequate progress” towards achieving this standard is not met. Urban and urbanizing areas protected by State-Federal project levees cannot use “adequate progress” as a condition to approve development after 2028. SB 5 prohibits a city or county within the Central Valley Flood Protection Plan area from approving a development agreement, discretionary permit or entitlement, tentative map or parcel map for any property within a flood hazard zone unless they can demonstrate any of the following:

- the project has already achieved the applicable level of flood protection:
- conditions have been imposed on the project approval that will eventually result in the applicable level of flood protection: or
- adequate progress is being made towards achievement of the applicable level of flood protection.

Adequate progress is defined as meeting all of the following:

1. The project scope, cost and schedule have been developed;

2. In any given year, at least 90% of the revenues scheduled for that year have been appropriated and expended consistent with the schedule;
3. Construction of critical features is progressing as indicated by the actual expenditure of budget funds;
4. The city or county has not been responsible for any significant delay in completion of the system; and
5. The above information has been provided to the DWR and the Central Valley Flood Protection Board and the local flood management agency shall annually report on the efforts to complete the project.

Envision Stockton 2040 General Plan

The Envision Stockton 2040 General Plan contains the policies related to stormwater that are applicable to the proposed Project.

POLICY: COMMUNITY DESIGN ELEMENT

- CD-6.5. Storm Water Design. The City shall ensure that storm water facilities, such as detention basins, ditches and outfalls, be planned and design to support citywide and district urban design objectives.

POLICIES: PUBLIC FACILITIES ELEMENT

- PFS-4.1: Creek and Slough Capacity. The City shall require detention storage with measured release to ensure that the capacity of downstream creeks and sloughs will not be exceeded. To this end:
 - Outflow to creeks and sloughs shall be monitored and controlled to avoid exceeding downstream channel capacities;
 - Storage facilities shall be coordinated and managed to prevent problems caused by timing of storage outflows.
- PFS-4.2: Watershed Drainage Plans. The City shall require the preparation of watershed drainage plans for proposed developments within the urban services boundary. These plans shall define needed drainage improvements and estimate construction costs for these improvements. The plans will also identify a range of feasible measures that can be implemented to reduce all public safety and/or environmental impacts associated with the construction, operation, or maintenance of any required drainage improvements (i.e., drainage basins, etc.).
- PFS-4.3: Best Management Practices. The City shall require, as part of watershed drainage plans, Best Management Practices (BMPs), to reduce pollutants to the maximum extent practicable.
 - As of November 25, 2003, the City shall require that all new development and redevelopment projects to comply with the post-construction Best Management Practices (BMPs) called for in the Stormwater Quality Control Criteria Plan (SWQCCP), as outlined in the City's Phase 1 Stormwater NPDES permit issued by the California Water Quality Control Board, Central Valley Region (Order No. R5-20020-0181). Also the

owners, developers, and/or successors-in-interest must establish a maintenance entity acceptable to the City to provide funding for the operation, maintenance, and replacement costs of all post-construction BMPs.

- The City shall require, as part of its Storm Water NPDES Permit and ordinances, to implement the Grading Plan, Erosion Control Plan, and Pollution Prevention Plan (SWPPP) during construction activities of any improvement plans, new development and redevelopment projects for reducing pollutants to the maximum extent practicable.
- PFS-4.4: Regional Basins. The City shall define drainage service areas and encourage and support the use of regional stormwater facilities, including stormwater detention and stormwater quality basins within these service areas.
- PFS-4.5: Public Facilities Fees. The City shall develop a Stormwater Management Utility fee that will financially support the stormwater system operation, the Stormwater Management Plan, and maintenance and management program activities.
- PFS-4.6: Stormwater Facility Sizing. The City shall ensure through the development review process that public facilities and infrastructure are designed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for future replacement to achieve upsizing. For facilities subject to incremental sizing, the initial design shall include adequate land area and any other elements not easily expanded in the future.
- PFS-4.7: Storm Water Discharge. The City shall require for new development within the horizontal surface boundary of the Stockton Metropolitan Airport that any storm water detention basin be designed to discharge as rapidly as possible to minimize the attraction of birds in the vicinity of the airport.
- PFS-4.8: Low Impact Development. The City shall incorporate low impact development (LID) alternatives for stormwater quality control into development requirements. LID alternatives will include: (1) conserving natural areas and reducing imperviousness, (2) runoff storage, (3) hydro-modification (to mimic pre-development runoff volume and flow rate), and (4) public education.

City of Stockton Municipal Code

TITLE 13 CHAPTER 13.16 STORM WATER MANAGEMENT AND DISCHARGE CONTROL

This establishes uniform requirements for protecting and enhancing the water quality of our watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Clean Water Act. This chapter is also intended to promote the future health, safety, general welfare, and protection of property of the City citizens by establishing requirements for:

- A. Operating and maintaining the municipal stormwater system.
- B. Eliminating non-stormwater discharges to the municipal separate storm drain.
- C. Controlling the discharge to municipal separate storm drains from spills, dumping, or disposal of materials other than stormwater.
- D. Reducing pollutants in stormwater discharges to the maximum extent practicable. (Prior code § 7-801)

3.14 UTILITIES AND SERVICE SYSTEMS

TITLE 13 CHAPTER 13.20 STORMWATER QUALITY CONTROL CRITERIA PLAN

This chapter establishes requirements for:

- A. Selection of post-construction stormwater quality controls (BMPs) that reduce pollutants from new development and redevelopment to the maximum extent practicable (MEP) in a manner that is complimentary to the City's stormwater management program and satisfy the requirements of the California General Construction Activities Stormwater Permit and other regulatory requirements.
- B. Definition of evaluation criteria to ensure that the BMPs can be rated in a comparative manner and that the pollutant reduction credit assigned is consistent with the City's stormwater management goals and objectives.
- C. Definition of eligibility standards, procedures, and administrative practices to ensure that stormwater pollutant prevention credits (SWPPC) resulting from the implementation of the selected BMPs are real, permanent, and surplus.
- D. Provide an administrative mechanism for SWPPC to be created and used as required by City regulations to meet the post-construction water quality objectives of the Stormwater Management Program. (Prior code § 7-859.1)

TITLE 13 CHAPTER 13.24 STORMWATER INDUSTRIAL FACILITIES MONITORING PLAN

This plan:

- A. Establishes guidelines for identifying and ranking of priority industrial facilities (PIFs) for purposes of inspection and monitoring, and for categorizing these facilities as a major or minor PIF.
- B. Defines standards and procedures for the City to issue and enforce conditions of acceptance for stormwater discharge from priority industrial facilities.
- C. Defines standards, procedures, and practices for the inspection of priority industrial facilities.
- D. Defines a progressive enforcement plan designed to ensure industry compliance with the City industrial condition of acceptance.
- E. Establishes the need for an industrial outreach program to educate local industry about stormwater pollution control.
- F. Establishes standards, procedures, and practices for and industrial investigation/compliance monitoring program for priority industrial facilities, and a monitoring exemption certification program. (Prior code § 7-860.1)

Utility Master Plans

The City of Stockton maintains a variety of Master Plan documents that guide the design, development, and maintenance of the utilities within the city limits. These include: *2015 City of Stockton Urban Water Management Plan* (Stockton, 2011), *2035 Wastewater Master Plan* (Stockton, 2008), *Water Master Plan* (Stockton, 2021), *City of Stockton Conceptual Storm Drain Master Plan* (Stockton, 2008), and the *City of Stockton NPDES Municipal Stormwater Program Stormwater Management Plan* (2009).

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project may have a significant impact on the environment associated with Utilities if it would:

1. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

IMPACTS AND MITIGATION MEASURES

Impact 3.14-6: The proposed Project has the potential to require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (Less than Significant)

Flooding events can result in damage to structures, injury or loss of human and animal life, exposure of waterborne diseases, and damage to infrastructure. In addition, standing floodwater can destroy agricultural crops, undermine infrastructure and structural foundations, and contaminate groundwater. The RD-17 levee system is designed to a 100-year protection standard. The Project site is currently located in Zone X protected by levee, which by definition indicates an area protected by levees from the 1% annual chance flood; AE, which are areas that present a 1% annual chance of flooding according to FEMA.; AO, which is the zone that corresponds to the areas of 1% annual shallow flooding chance (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. The Project site is not located within the 200-year floodplain as delineated on the most recent 200-year flood plain maps for Stockton.

Two basins would be needed to provide flood control for the Project. The Project proposes to construct two storm drain detention basins to provide flood control. The primary basin will be approximately 28 acres located within the northwest corner of the Project site, east of the UPRR right-of-way. The Project proposes to construct a storm drainage flood channel generally along the northern edge of Parcels 3, 4 and 5. The drainage channel will connect to a proposed outfall to the primary detention basin, generally located within the northeast area of the basin. A flood control channel is proposed along the north edge of the Project site in order to collect additional flood waters and direct them to the proposed basins. Pump stations at the basins will be used to drain the basins and will discharge through an outfall structure located along French Camp Slough. Storm water conveyance systems will be installed along Commerce Drive to collect storm water runoff and direct it to the proposed basins. The conveyance pipes are proposed to range in size from 15-inch diameter to 96-inch diameter. In the event that Weber Slough overflows, the flood waters will spill into the flood channel and be directed to the northern onsite basin. Onsite stormwater runoff will be directed into an underground pipe system which will collect the runoff and direct it to the onsite basins.

A storm drain (ranging from 15 to 96 inches) is proposed within the proposed Commerce Drive right-of-way. The storm drain will extend from Commerce Drive along the southern and western edges of Parcel 1 and connect to the proposed outfall to the detention basin. The proposed outfall and a

storm drain pump station are proposed to be located generally within the southwest area of the basin.

The secondary basin will be approximately 13 acres, located west of the UPRR right-of-way, between the future Commerce Drive and French Camp Slough. The proposed storm drain in Commerce Drive will connect to the proposed outfall to the detention basin, generally located within the northeast area of the basin. An outfall from the secondary basin to French Camp slough will also be constructed just east of the secondary basin. Two options are being considered. One, is an overland flow discharge where the water will be released into a rock lined structure to slow flow velocities before flowing into French Camp Slough. The second option, is a more traditional outfall structure and rock rip rap placed on the banks of French Camp Slough.

The City will require that a maintenance entity be established to provide for the operation, maintenance, and replacement costs of the detention pond system and other water quality features of the Project. The perimeter of the detention facilities will be landscaped to temper and screen views of the detention basins. Additionally, fencing would be constructed around the detention basin areas for safety and security purposes.

Areas of proposed development within the Project site will be required to meet the "volume reduction" and "trash control" requirements of the City's most recent stormwater NPDES permit. Units of development would incorporate design features that would divert storm water to the groundwater system and/or detain runoff before it reaches the collection system. These design features would include measures also described as Low Impact Development (LID) and Volume Reduction Measures, such as grassy swales, porous pavement, rain barrels, and rain gardens, among others. Compliance with the City's stormwater standards will require that storm drainage from new development be reduced below "existing runoff" rates. In addition, units of development would incorporate design features to comply with the City's stormwater standards for trash control. Examples of potential design features include hydrodynamic separators, trash screens, or LID measures which are capable of trapping all particles five millimeters in size or greater.

The proposed Project includes development of a new storm drainage system to serve the proposed uses as described above. The potential environmental effects resulting from construction of the storm drainage system are analyzed throughout this Draft EIR, and in some cases, there are potentially significant impacts associated with construction of this infrastructure. Where impacts are identified for each environmental topic, mitigation measures are developed to avoid, minimize, or compensate for the impact to the extent practicable. All mitigation measures presented throughout this EIR will be implemented to reduce impacts to the extent practicable. There will not be any significant impacts beyond what is disclosed in the other chapters of this document. Overall, compliance with Federal, State, and local standards and regulations as well as implementation of Mitigation Measures 3.9-1 and 3.9-2 would ensure that the proposed Project would not result in substantial erosion, siltation, surface runoff, flooding, or polluted runoff and that the impact would be *less than significant*.

3.14.4 SOLID WASTE

ENVIRONMENTAL SETTING

The City of Stockton Public Works Department (Solid Waste & Recycling Division) provides solid waste hauling service for the City of Stockton. This agency would serve the proposed Project. Waste collection services are provided weekly on a day, as specified by the waste haulers that serve the City, which include Republic Services and Waste Management. Customers with brown-colored carts are served by Republic Services, and those with green-colored carts are served by Waste Management.

Solid waste from Stockton is primarily landfilled at the Forward Sanitary Landfill, located southeast of Stockton. Other landfills used include Foothill Sanitary and North County Landfills. All three landfills are summarized in Table 3.14-7 below. Table 3.14-8 summarizes the City of Stockton's disposal rate targets, as identified by Cal Recycle.

TABLE 3.14-7: CITY OF STOCKTON LANDFILL SUMMARY

<i>LANDFILL</i>	<i>LOCATION</i>	<i>MAXIMUM DAILY THROUGHPUT (TONS/DAY)</i>	<i>REMAINING CAPACITY (CUBIC YARDS)</i>	<i>ANTICIPATED CLOSURE YEAR</i>
Forward Sanitary	Manteca	8,668	22.1 Million	2021 ¹
Foothill Sanitary	Linden	1,500	125 Million	2055
North County	Lodi	1,200	35.4 Million	2048

NOTE: ¹ TO INCREASE THE LIFESPAN OF THE FORWARD LANDFILL, FORWARD, INC. IS PLANNING TO EXPAND ITS DISPOSAL FOOTPRINT FROM ABOUT 355 ACRES TO 366 ACRES. THIS EXPANSION WOULD INVOLVE THE RELOCATION OF 3,200 FEET OF THE SOUTH BRANCH OF THE SOUTH FORK OF LITTLE JOHNS CREEK AND INCREASING THE CURRENT LANDFILL CAPACITY FROM ABOUT 20 MILLION CY (AS OF FEBRUARY 2014) TO ABOUT 27.7 MILLION CY. A 17.3-ACRE EXPANSION WAS APPROVED IN JANUARY OF 2020 INSIDE THE LANDFILL'S EXISTING BOUNDARIES ALONG AUSTIN ROAD EAST OF STOCKTON METROPOLITAN AIRPORT. THE LIFESPAN OF THE LANDFILL WILL EXTEND FROM 2030 TO 2036 AND AN ADDITIONAL 8.2 MILLION CUBIC YARDS OF WASTE WILL BE PROCESSED ON TWO SITES, AN 8.7-ACRE PARCEL IN THE NORTHEAST CORNER AND AN 8.6-ACRE PARCEL ON THE SOUTH END OF THE PROPERTY. THE NEW OPERATIONS WILL NOT INFRINGE THE ADJACENT 184-ACRE BROCHINNI PARCEL ACQUIRED BY REPUBLIC FORWARD SERVICES INC. & AUSTIN ROAD LANDFILLS IN 2011 AND PROPOSED IN 2012.

SOURCE: CAL RECYCLE, 2019.

TABLE 3.14-8: CITY OF STOCKTON WASTE DISPOSAL RATE TARGETS (POUNDS/DAY)

<i>POPULATION</i>		<i>EMPLOYMENT</i>	
Target	Annual	Target	Annual
6.9	6.5	21.0	20.4

SOURCE: CAL RECYCLE, 2019.

REGULATORY SETTING

AB 939: California's Integrated Waste Management Act of 1989

California's Integrated Waste Management Act of 1989 (AB 939) set a requirement for cities and counties to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling and composting. In order to achieve this goal, AB 939 requires that each City

and County prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 939 also established requirements for cities and counties to develop and implement plans for the safe management of household hazardous wastes. In order to achieve this goal, AB 939 requires that each city and county prepare and submit a Household Hazardous Waste Element.

AB 341 (75 Percent Solid Waste Diversion)

AB 341 requires CalRecycle to issue a report to the Legislature that includes strategies and recommendations that would enable the state to divert 75 percent of the solid waste generated in the state from disposal by January 1, 2020, requires businesses that meet specified thresholds in the bill to arrange for recycling services by January 1, 2012, and also streamlines various regulatory processes.

SB 1374 (Construction and Demolition Waste Materials Diversion)

Senate Bill 1374 (SB 1374), Construction and Demolition Waste Materials Diversion Requirements, requires that jurisdictions summarize their progress realized in diverting construction and demolition waste from the waste stream in their annual AB 939 reports. SB 1374 required the CIWMB to adopt a model construction and demolition ordinance for voluntary implementation by local jurisdictions.

AB 1826 (Mandatory Organics Recycling)

Beginning April 1, 2016, the State's Mandatory Organic Waste Recycling law (AB 1826) requires businesses, based on the amount and type of waste the business produces weekly.

- Businesses that generate 8 cubic yards of organic waste per week arrange organic recycling services.
- Businesses that generate 4 cubic yards of organic waste per week arrange organic waste recycling services.
- Businesses that generate 4 cubic yards or more of commercial solid waste per week arrange organic waste recycling services.
- **If CalRecycle determines that the statewide disposal of organic waste in 2020 has not been reduced by 50 percent of the level of disposal during 2014, the organic recycling requirements on businesses will expand to cover businesses that generate 2 cubic yards or more of commercial solid waste per week. Additionally, certain exemptions may no longer be available if this target is not met.

California Green Building Standards Code (CALGreen)

CALGreen requires the diversion of at least 50 percent of the construction waste generated during most new construction projects (CALGreen Sections 4.408 and 5.408) and some additions and alterations to nonresidential building projects.

Envision Stockton 2040 General Plan

The Envision Stockton 2040 General Plan contains the policies related to solid waste that are applicable to the proposed Project.

POLICIES: PUBLIC FACILITIES AND SERVICES ELEMENT

- PFS-5.1 Solid Waste Reduction. The City shall promote the maximum feasible use of solid waste reduction, recycling, and composting of wastes and strive to reduce commercial and industrial waste on an annual basis.
- PFS-5.2 Recycling Program. The City shall continue to require recycling in public and private operations to reduce demand for solid waste disposal capacity.
- PFS-5.3 City Usage of Recycled Materials and Products. The City should use recycled materials and products where economically feasible.
- PFS-5.4 Private Usage of Recycled Products. The City shall work with recycling contractors to encourage businesses to use recycled products in their manufacturing processes and encourage consumers to purchase recycled products.
- PFS-5.5 Recycling of Hazardous Materials. The City shall require the proper disposal and recycling of hazardous materials.
- PFS-5.6 Recycling of Construction Debris. The City shall require the recycling of construction debris.
- PFS-5.7 Development Requirements. The City shall ensure that all new development has appropriate provisions for solid waste storage, handling, and collection pickup.

City of Stockton Municipal Code, Chapter 8.04

Chapter 8.04 of the Municipal Code regulates the management of garbage, recyclables, and other wastes. Chapter 8.04 sets forth solid waste collection, disposal, and diversion requirements for residential, commercial, industrial, and other uses and addresses yard waste, hazardous materials, recyclables, and other forms of solid waste.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on the environment associated with Utilities if it will:

1. Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs.
2. Comply with federal, State, and local statutes and regulations related to solid waste.

IMPACTS AND MITIGATION MEASURES

Impact 3.14-7: The proposed Project has the potential to be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs and comply with federal, State, and local statutes and regulations related to solid waste (Less than Significant with Mitigation)

The permitted maximum disposal at the Forward Landfill is 8,668 tons per day. The total permitted capacity of the Forward Landfill is 51.04 million cubic yards, which was expected to accommodate an operational life until January 1, 2021. An expansion was approved by the Board of Supervisors in early 2020 to extend the life of the landfill, extending its lifespan from 2030 to 2036 according to Republic Services². The remaining capacity is 22,100,000 cubic yards. Solid waste generated by the proposed Project was estimated based on CalRecycle generation rate estimates by use (discussed below). The permitted maximum disposal at the Foothill Landfill is 1,500 tons per day. The remaining capacity is 125,000,000 cubic yards with an anticipated closure year of 2055. The permitted maximum disposal at the North County Landfill is 1,200 tons per day. The remaining capacity is 35,400,000 cubic yards with an anticipated closure year of 2048.

The commercial portion of the project site is estimated to generate roughly five pounds per day per 1,000 square feet. It is estimated that the 140,350 square feet of commercial space would generate approximately 702 pounds per day of solid waste.

The industrial portion of the project site is estimated to generate roughly five pounds per day per 1,000 square feet. It is estimated that 6,091,551 square feet of industrial space would generate roughly approximately 30,458 pounds per day of solid waste. Note, this estimate of the square footage for the commercial and industrial space is considered a worst-case scenario and may very well prove to be an overestimate.

The total solid waste generated by the proposed project is estimated to be 15.58 tons per day. As previously described, solid waste generated in the City is disposed at the Forward Landfill. This landfill was projected to close in the year 2021. As mentioned above, an expansion was approved by the Board of Supervisors earlier this year to extend the life of the landfill, from 2030 to 2036 according to Republic Services. The City's solid waste per capita generation has decreased since 2007 due to the waste diversion efforts of the City. The permitted maximum disposal at the Forward Landfill is 8,668 tons per day. The permitted vehicle limit is 620 vehicles per day; however, the landfill averages 212 daily trucks.³ The remaining capacity of the landfill is 22.1 million cubic yards. The addition of solid waste associated with the proposed Project, approximately 15,537.5 pounds

² E.A. Crunden, Republic Landfill Expansion Moves Ahead in California After Failed Appeal. WasteDive. Published January 10, 2020. Accessed: <<https://www.wastedive.com/news/republic-landfill-expansion-california-san-joaquin/570033/>>

³ San Joaquin County Community Development Department. Draft Environmental Impact Report – Forward Landfill Expansion (SCH#2008052024). September 2012. Page III-13.

or 7.77 tons per day (9.17 cubic yards per day) at total buildout, to the Forward Landfill would not exceed the landfill's remaining capacity.

All development in the City of Stockton is required to have solid waste service pursuant to Section 8.04.020 of the City Municipal Code. Solid waste service for the proposed Project would be provided by the City's contracted providers. Therefore, impacts related to solid waste would be ***less than significant***.

MITIGATION MEASURES

Mitigation Measure 3.14-2: *As a Condition of Approval, the project applicant shall comply with the provisions of Stockton Municipal Code Sections 8.28.020 through 8.28.070 regarding construction and demolition waste. Permit applicants for the project shall be required to meet the waste diversion requirement of at least 50 percent of materials generated as discards by the project, regardless of whether the permit applicant performs the work or hires contractors, subcontractors, or others to perform the work.*

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The California Environmental Quality Act (CEQA) requires an Environmental Impact Report (EIR) to evaluate a project's effects in relationship to broader changes occurring, or that are foreseeable to occur, in the surrounding environment. Accordingly, this chapter presents a discussion of CEQA-mandated analysis for cumulative impacts, significant irreversible effects, and significant and unavoidable impacts associated with the proposed Project.

4.1 CUMULATIVE SETTING AND IMPACT ANALYSIS

INTRODUCTION

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed Project. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (as defined by Section 15130). As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A cumulative impact occurs from:

...the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

1) Either:

(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or,

(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

4.0 OTHER CEQA-REQUIRED TOPICS

3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

CUMULATIVE SETTING

The cumulative setting uses growth projections listed in the general plan, municipal services review, other planning documents and Department of Finance statistics. Table 4.0-1 shows growth projections.

TABLE 4.0-1: GROWTH PROJECTIONS

CALENDAR YEAR	ESTIMATED POPULATION (STOCKTON)	ESTIMATED POPULATION (SAN JOAQUIN COUNTY)	ESTIMATED POPULATION (CALIFORNIA)
2020	318,522	766,644	40,619,346
2025	352,239	822,755	42,373,301
2030	374,939	893,354	44,085,600
2035	401,961	966,889	45,747,645
2040	432,627	1,037,761	47,233,240

SOURCES: CITY OF STOCKTON (2016), DEPARTMENT OF FINANCE (2020), UNIVERSITY OF THE PACIFIC (2016).

CUMULATIVE EFFECTS OF THE PROJECT

Cumulative settings are identified under each cumulative impact analysis. Cumulative settings vary because the area that the impact may affect is different. For example, noise impacts generally only impact the local surrounding area because noise travels a relatively short distance while air quality impacts affect the whole air basin as wind currents control air flow and are not generally affected by natural or manmade barriers which would affect noise. Cumulative Project impacts are addressed and summarized below.

Method of Analysis

Although the environmental effects of an individual project may not be significant when that project is considered separately, the combined effects of several projects may be significant when considered collectively. State CEQA Guidelines 15130 requires a reasonable analysis of a project's cumulative impacts, which are defined as "two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts." The cumulative impact that results from several closely related projects is: the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (State CEQA Guidelines 15355[b]). Cumulative impact analysis may be less detailed than the analysis of the project's individual effects (State CEQA Guidelines 15130[b]).

There are two approaches to identifying cumulative projects and the associated impacts. The list approach identifies individual projects known to be occurring or proposed in the surrounding area in order to identify potential cumulative impacts. The projection approach uses a summary of projections in adopted General Plans or related planning documents to identify potential cumulative impacts. This EIR uses the projection approach for the cumulative analysis and considers the development anticipated to occur upon buildout of the various General Plans in the area.

Project Assumptions

The proposed Project's contribution to environmental impacts under cumulative conditions is based on development of the Project site consistent with the development assumptions identified in Chapter 2.0, Project Description, which establishes a target floor area ratio (FAR) and maximum development potential for industrial and commercial land uses. See Chapter 2.0, Project Description, for a complete description of the proposed Project.

Cumulative Impacts

Some cumulative impacts for issue areas are not quantifiable and are therefore discussed in general terms as they pertain to development patterns in the surrounding region. Exceptions to this are traffic, utilities, noise and air quality (the latter two of which are associated with traffic volumes and operations associated with the proposed land uses), which may be quantified by estimating future traffic patterns, pollutant emitters, etc. and determining the combined effects that may result. In consideration of the cumulative scenario described above, the proposed Project may result in the following cumulative impacts.

AESTHETICS AND VISUAL RESOURCES

The cumulative setting for aesthetics is the City of Stockton and surrounding areas of San Joaquin County.

Impact 4.1: Cumulative Damage to Scenic Resources within a State Scenic Highway (Less than Significant and Less than Cumulatively Considerable)

As described in Section 3.1, Aesthetics and Visual Resources, one highway section in San Joaquin County is listed as a Designated Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of Interstate 580 (I-580) from Interstate 5 to Interstate 205. This route traverses the edge of the Coast Range to the west and Central Valley to the east. The City of Stockton, including the Project site, is not visible from this roadway segment, which is located approximately 20 miles southwest of the site.

Cumulative development in the city would not impact a State Scenic Highway. Implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts relative to scenic resources would be a ***less than cumulatively considerable contribution*** and no mitigation is required.

Impact 4.2: Cumulative Degradation of the Existing Visual Character of the Region (Cumulatively Considerable and Significant and Unavoidable)

Project implementation would introduce industrial uses, as well as supporting infrastructure into an area that is currently undeveloped and is primarily occupied by agricultural uses. The proposed Project would include visual components that would assist in enhancing the appearance of the site following site development. Landscaping improvements, such as new street trees and other vegetation landscaping, would be provided throughout the Project site, including along the site boundary. Additionally, the proposed Project would also include approximately 54 acres of open space near French Camp Slough in order to minimize conflicts between the uses, maintain the habitat area along the Slough, and provide a visual shield. Nevertheless, impacts related to degradation of the visual character of the site would be significant and unavoidable.

Under cumulative conditions, buildout of the General Plan for Stockton and the surrounding jurisdictions could result in changes to the visual character and quality of the City of Stockton through development of undeveloped areas and/or changes to the character of existing communities. Development of the proposed Project, in addition to other future projects in the area, would change the existing visual and scenic qualities of the City. It is noted that although the Project site is undeveloped and currently occupied by agricultural uses, the General Plan designates a majority of the site for Industrial and Commercial uses. Additionally, the surrounding areas to the north, east, south, and west are designated for urban uses (including mainly Institutional and Industrial uses) by the General Plan. As such, the General Plan and associated EIR anticipated development of the Project area for similar uses as proposed by the Project.

Development within the City would be required to be consistent with the General Plan policies and City Municipal Code, both of which cover aesthetics and visual characteristics. Further, the Municipal Code contains development standards that address the visual character of a development project, such as building height, massing, setbacks, lighting, and landscaping. Although implementation of these requirements would reduce the impacts associated with development, the impacts would remain significant and unavoidable. As such, this is a ***cumulatively considerable contribution*** and a ***significant and unavoidable*** impact.

Impact 4.3: Cumulative Impact on Light and Glare (Less than Significant and Less than Cumulatively Considerable)

Implementation of the proposed Project would introduce new sources of light and glare into the vacant Project site. Compliance with the lighting plan required by Mitigation Measure 3.1-1 would ensure that lighting features do not result in light spillage onto adjacent properties and do not significantly impact views of the night sky. Adherence to Section 16.32.070, Light and Glare, of Chapter 16.32, General Performance Standards, of the City Municipal Code and the required design review (required by Chapter 16.120, Design Review, of the City Municipal Code) would ensure that excessively reflective building materials are not used, and that the proposed Project would not result in significant impacts related to daytime glare.

Future projects within Stockton, Lathrop, and San Joaquin County would be subject to the light and glare standards established by the individual jurisdictions. These regulations are designed to

minimize potential light and glare impacts of new development. Implementation of these regulations would ensure that future projects minimize their potential light and glare impacts resulting in a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts related to nighttime lighting and daytime glare would be a ***less than cumulatively considerable contribution***, and no mitigation is required.

AGRICULTURAL RESOURCES

The cumulative setting for agriculture and forest resources is all of San Joaquin County. According to the Department of Conservation, the County had 744,835 acres of farmland in 2016, the majority of which is identified as Prime Farmland. The remaining agricultural land is comprised of Farmland of Statewide Importance (11 percent), Unique Farmland (11 percent), Farmland of Local Importance (9 percent), and Grazing Land (18 percent).

Impact 4.4: Cumulative Impact on Agricultural Resources (Cumulatively Considerable and Significant and Unavoidable)

As described in Section 3.2, Agricultural Resources, development of the proposed Project would result in a permanent conversion of 158.6 acres of Prime Farmland, 259.3 acres of Farmland of Statewide Importance, and 4.3 acres of Unique Farmland to non-agricultural use. The loss of Important Farmland as classified under the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) is considered a potentially significant environmental impact.

Mitigation of agricultural land conversion losses would be provided through the county-wide adoption of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) and its local adoption by the City of Stockton. The SJMSCP requires the payment of a per-acre fee for loss of wildlife habitat, which in San Joaquin County is largely integral with agricultural use. The City's Agricultural Land Mitigation Program requires that future development pay the agricultural mitigation fee, currently \$12,822 per acre, to mitigate the conversion of agricultural land to urban use. The San Joaquin Council of Governments (SJCOG) would then use these funds to purchase conservation easements on agricultural and habitat lands that are placed over agricultural land, such as alfalfa and row crops in the Project vicinity.

The purchase of conservation easements and/or deed restrictions through the City's Agricultural Land Mitigation Program and the SJMSCP allows the agricultural landowner to retain ownership of the land and continue agricultural operations, and preserves such lands in perpetuity.

While the proposed Project will contribute fees toward the purchase of conservation easements on agricultural lands, as required by Mitigation Measure 3.2-1, those fees and conservation easements would not result in the creation of new farmland to offset the loss that would occur with Project implementation. As such, the loss of Important Farmland would be a ***cumulatively considerable contribution*** and a ***significant and unavoidable*** impact.

AIR QUALITY

The cumulative setting for air quality impacts is the San Joaquin Valley Air Basin (SJVAB), which consists of eight counties, stretching from Kern County in the south to San Joaquin County in the north. The SJVAB is bounded by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south.

Impact 4.5: Cumulative Impact on the Region's Air Quality (Cumulatively Considerable and Significant and Unavoidable)

Under buildout conditions in the San Joaquin County, the SJVAB would continue to experience increases in criteria pollutants and efforts to improve air quality throughout the basin would be hindered. As described in Section 3.3, San Joaquin County has a state designation of Nonattainment for ozone, PM₁₀ and PM_{2.5}. Table 3.3-2 in Section 3.3 presents the State and Federal attainment status for San Joaquin County.

As discussed under Impact 3.3-1 in Section 3.3, operational emissions would exceed the SJVAPCD thresholds of significance for CO, NO_x, ROG, PM_{2.5}, and PM₁₀. Therefore, the proposed Project is required to implement all feasible mitigation to reduce criteria pollutant emissions to below the applicable SJVAPCD thresholds of significance. The proposed Project would implement Mitigation Measure 3.3-1 through Mitigation Measure 3.3-18 included in Section 3.3. However, even with implementation of all feasible mitigation, it may not be feasible for all individual phases of development within the Project site (and thereby the Project as a whole) to reduce operational emissions at full Project buildout below the applicable thresholds.

As discussed in Impact 3.3-2 in Section 3.3, none of the Project annual construction emissions would exceed the SJVAPCD thresholds of significance. Nevertheless, regardless of emission quantities, the SJVAPCD requires construction related mitigation in accordance with their rules and regulations. Implementation of the Mitigation Measure 3.3-19 through 3.3-22 included in Section 3.3 would further reduce proposed Project construction related emissions to the extent possible.

Additionally, as discussed in Impact 3.3-3 of Section 3.3, a health impact analysis has been prepared for the proposed Project to analyze the potential health risks associated with increased trucks to the Project site and surrounding roadways associated with the development and operation of the proposed industrial and commercial uses. The source of TACs for this type of project can be attributed to diesel exhaust from the trucks (including from truck refrigeration units, or TRUs), as well as on-road construction equipment during Project construction. As shown in Table 3.3-13 in Section 3.3, the proposed Project, in and of itself, would not result in a significant increased exposure of receptors to localized concentrations of TACs. Risk of residential cancer risk, workplace cancer risk, and chronic and acute non-cancer risks are below the applicable SJVAPCD thresholds.

Lastly, as discussed under Impact 3.3-4, the proposed Project does not propose sensitive receptors that would be exposed to odors in the vicinity; nor does it propose uses that would create new odors that would expose substantial numbers of people.

Overall, even with the application of the mitigation measures included in Section 3.3, emissions levels would remain above the defined thresholds of significance for criteria pollutant emissions during Project operation and Project construction. As such, implementation of the proposed Project would have a ***cumulatively considerable contribution*** and ***significant and unavoidable*** impact from air emissions.

BIOLOGICAL RESOURCES

The cumulative setting for biological resources includes the Project site and the greater San Joaquin County region. Development associated with implementation of the local General Plan(s) would contribute to the ongoing loss of natural and agricultural lands in San Joaquin County, including the Project site. Cumulative development would result in the conversion of existing habitat to urban uses. The local General Plan(s), in addition to regional, State and federal regulations, includes policies and measures that mitigate impacts to biological resources associated with General Plan buildout. Additionally, local land use authorities in San Joaquin County require development to participate in the SJMSCP, which is a habitat conservation plan and natural community conservation plan for San Joaquin County that provides a mechanism for compensatory mitigation for habitat and species loss in accordance with federal and State laws.

Impact 4.6: Cumulative Loss of Biological Resources Including Habitats and Special Status Species (Less than Significant and Less than Cumulatively Considerable)

Under cumulative conditions, buildout of the General Plan(s) within San Joaquin County will result in impacts to biological resources associated with new development. The General Plan(s) includes policies that are designed to minimize impacts to the extent feasible and the SJMSCP has been established to provide a mechanism for compensatory mitigation and standardized avoidance and minimization measures as needed.

As described in Section 3.4 Biological Resources, construction in the Project site has the potential to result in impacts to special-status species in the region. The California Natural Diversity Database (CNDDB) currently contains records for Swainson's hawk, burrowing owl, and tricolored blackbird in the vicinity of the Project site. The Project site provides potential habitat for several species, including those discussed in Section 3.4.

Mitigation Measure 3.4-1 requires participation with the SJMSCP, which includes fees that will be used to purchase conservation lands for a variety of special status species. The SJMSCP was created and adopted to address both the Project and cumulative impacts to biological resources, including special status species. The proposed Project will participate in the SJMSCP, including payment of fees and implementation of all Incidental Take Minimization Measures required by the SJCOG through the authorization of SJMSCP coverage.

The ongoing operational phase of the proposed Project requires discharge of stormwater into the City storm drainage system, which ultimately discharges into the Delta. The discharge of stormwater could result in indirect impacts to special status fish and wildlife if stormwater was not appropriately treated through BMPs prior to its discharge to the Delta. Mitigation Measure 3.9-1 in Section 3.9

requires the Project applicant to implement nonstructural BMPs that focus on preventing pollutants from entering stormwater.

Implementation of Mitigation Measures 3.4-1 in Section 3.4 and Mitigation Measure 3.9-1 in Section 3.9 would reduce potentially cumulative impacts to a ***less than significant*** level. As such, impacts to biological resources would be a ***less than cumulatively considerable contribution***.

CULTURAL AND TRIBAL RESOURCES

The geography of cultural resources impacts can be defined by region, by political subdivision or by the geography of the cultural resources present in an area, where sufficient inventory data is available to define it. The cumulative setting for cultural resources includes all of the San Joaquin County. There are extensive cultural sites located in the region.

Impact 4.7: Cumulative Impacts on Known and Undiscovered Cultural and Tribal Resources (Less than Significant and Less than Cumulatively Considerable)

Cumulative development anticipated in the City of Stockton, including growth projected by adopted future projects, may result in the discovery and removal of cultural resources, including archaeological, paleontological, historical, and Native American resources and human remains. As discussed in Section 3.5, Cultural and Tribal Resources, the Project site had been surveyed by Peter Jensen in 2000 (SJ-4029). Jensen found no evidence of prehistoric period resources in the Project site; however, a section of the Tidewater and Southern Railroad was recorded (Resource P-39-000015). This railroad line subdivides the Project site. Because the original components of the rail system have been changed and/or altered, this segment of the rail line is not considered eligible for the NRHP. As such, the Project site does not contain a “historical resource” as defined in CEQA Guidelines Section 15064.5.

Any previously unknown cultural resources which may be discovered during development of the proposed Project would be required to be preserved, either through preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. With implementation of the mitigation measures provided in Section 3.5, the proposed Project is not anticipated to considerably contribute to a significant reduction in cultural resources in the region.

All future projects in the regional vicinity would be subject to their respective General Plans (i.e., City of Stockton, City of Lathrop, and San Joaquin County), each of which have policies and measures that are designed to ensure protection of undiscovered cultural resources. In addition, all discretionary projects in these jurisdictions would require environmental review per regulations established in CEQA.

Implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts related to cultural resources would result in a ***less than cumulatively considerable contribution***.

GEOLOGY AND SOILS

Impacts related to geology and soils are not inherently cumulative. Geology and soils concerns are related to risks, hazards or development constraints that are largely site-specific. However, seismic hazards are regional, and management of seismic hazards is vested with the local planning and building authority. For these reasons, the potential for cumulative geology and soils impacts are considered in the context of the City of Stockton and vicinity.

Impact 4.8: Cumulative Impact on Geologic and Soils Resources (Less than Significant and Less than Cumulatively Considerable)

As discussed in Section 3.6 Geology and Soils, implementation of the proposed Project has limited potential for liquefaction, liquefaction induced settlement, and lateral spreading. However, mitigation measures provided in Section 3.6 ensure impacts related to soil hazards will be less than significant. While the City is not within an area known for its seismic activity, there will always be a potential for groundshaking caused by seismic activity anywhere in California, including the Project site. Seismic activity could come from a known active fault such as the Vernalis fault, or any number of other faults in the region. In order to minimize potential damage to the buildings and site improvements, all construction in California is required to be designed in accordance with the latest seismic design standards of the California Building Code. Additionally, the City of Stockton has incorporated numerous policies relative to seismicity to ensure the health and safety of all people. Design in accordance with these standards and policies would reduce any potential impact to a less than significant level.

Geologic and soils impacts tend to be site-specific and Project-specific. With the mitigation measures presented in Section 3.6, implementation of the proposed Project would not result in increased risks or hazards related to geologic conditions in the cumulative setting area, nor would it result in any off-site or indirect impacts. Implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts related to geologic and soil resources would result in a ***less than cumulatively considerable contribution***.

GREENHOUSE GASES AND CLIMATE CHANGE

The cumulative setting for greenhouse gas emissions and climate change impacts for this analysis is San Joaquin County, which is the boundary for the California Air Resources Board's (CARB) regional greenhouse gas emissions reduction targets.

Impact 4.9: Cumulative Impact on Climate Change from Increased Project-Related Greenhouse Gas Emissions (Significant and Unavoidable and Cumulatively Considerable)

Greenhouse gas emissions from a single Project will not cause global climate change; however, greenhouse gas emission from multiple projects throughout a region or state could result in a cumulative impact with respect to global climate change.

The California Legislature has enacted a series of statutes in recent years addressing the need to reduce GHG emissions across the State. These statutes can be categorized into four broad categories: (i) statutes setting numerical statewide targets for GHG reductions, and authorizing

4.0 OTHER CEQA-REQUIRED TOPICS

CARB to enact regulations to achieve such targets; (ii) statutes setting separate targets for increasing the use of renewable energy for the generation of electricity throughout the State; (iii) statutes addressing the carbon intensity of vehicle fuels, which prompted the adoption of regulations by CARB; and (iv) statutes intended to facilitate land use planning consistent with statewide climate objectives.

Between AB 32 (2006) and SB 32 (2016), the Legislature has codified some of the ambitious GHG reduction targets included within certain high-profile Executive Orders issued by the last two Governors. The 2020 statewide GHG reduction target in AB 32 was consistent with the second of three statewide emissions reduction targets set forth in former Governor Arnold Schwarzenegger's 2005 Executive Order known as S-3-05, which is expressly mentioned in AB 32. (See Health & Safety Code Section 38501, subd. (i).) That Executive Branch document included the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. To meet the targets, the Governor directed several State agencies to cooperate in the development of a climate action plan. The Secretary of Cal-EPA leads the Climate Action Team, whose goal is to implement global warming emission reduction programs identified in the Climate Action Plan and to report on the progress made toward meeting the emission reduction targets established in the executive order.

In 2015, Governor Brown issued Executive Order, B-30-15, which created a "new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 is established in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050." SB 32 codified this target.

In 2018, the Governor issued Executive Order B-55-18, which established a statewide goal to "achieve carbon neutrality as soon as possible, and no later than 2045, and maintain and achieve negative emissions thereafter." The order directs the CARB to work with other State agencies to identify and recommend measures to achieve those goals.

Notably, the Legislature has not yet set a 2045 or 2050 target in the manner done for 2020 and 2030 through AB 32 and SB 32, though references to a 2050 target can be found in statutes outside the Health and Safety Code. Senate Bill 350 (SB 350) (Stats. 2015, ch. 547) added to the Public Utilities Code language that essentially puts into statute the 2050 GHG reduction target already identified in Executive Order S-3-05, albeit in the limited context of new state policies (i) increasing the overall share of electricity that must be produced through renewable energy sources and (ii) directing certain State agencies to begin planning for the widespread electrification of the California vehicle fleet. Section 740.12(a)(1)(D) of the Public Utilities Code now states that "[t]he Legislature finds and declares [that] ... [r]educing emissions of [GHGs] to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050 will require widespread transportation electrification." Furthermore, Section 740.12(b) now states that the California Public Utilities Commission (PUC), in consultation with CARB and the California Energy Commission (CEC), must "direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, ...

and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050.”

Additionally, the City of Stockton Climate Action Plan (CAP) was approved by the Stockton City Council on December 2, 2014. The Climate Action Plan summarizes the City’s GHG emissions inventory and provides 26 GHG emissions reduction measures. The CAP relies on numerous voluntary measures for both existing and new development, but also includes mandatory measures where required by other state or local existing mandates and other City initiatives. The CAP also provides implementation strategies for the emissions reduction measures provided within the CAP.

As presented in Table 3.7-3 in Section 3.7, short-term construction emissions of GHGs are estimated at a maximum of approximately 6,231 MT CO₂e per year, based on anticipated peak construction GHG emissions in around 2029. As shown in Table 3.7-4, the annual mitigated operational emissions of GHGs associated with the proposed Project would be approximately 144,929 MT CO₂e.

The proposed Project would be consistent with relevant plans, policies, and regulations associated with GHGs, notably the most recent version of the CARB’s Scoping Plan, the SJCOG’s 2022 RTP/SCS, the City of Stockton Climate Action Plan, and the City of Stockton Industrial Warehouse Ordinance. This would ensure that the proposed Project would be consistent with, and would not impair, the State’s carbon neutrality standard by the year 2045 as established under AB 1279. The State is making progress toward reducing GHG emissions in key sectors such as transportation, industry, and electricity. Since the Project would be consistent with State GHG Plans, it would not impede the State’s goals of reducing GHG emissions 40 percent below 1990 levels by 2030, and of achieving carbon neutrality by 2045. The proposed Project would make a reasonable fair share contribution to the State’s GHG reduction goals, by implementing a wide array of Project features that would substantially reduce GHG emissions. In addition, the proposed Project would be required to implement mitigation measures 3.3-1 through 3.3-22, as provided in Section 3.3: Air Quality. This would also ensure the proposed Project is consistent with the City of Stockton’s Industrial Warehouse Ordinance, effective as of January 11, 2024. However, even with implementation of all feasible mitigation, it may not be feasible for all individual projects to reduce operational emissions at full Project buildout below the applicable thresholds.

Therefore, implementation of the proposed Project would have a ***significant and unavoidable*** cumulative impact relative to this environmental topic. As such, impacts related to climate change and greenhouse gas emissions would result in a ***cumulatively considerable*** contribution.

HAZARDS AND HAZARDOUS MATERIALS

The cumulative context for the analysis of cumulative hazards and human health impacts is San Joaquin County, including all cumulative growth therein, as represented by full implementation of each respective General Plan (i.e., Stockton, Lathrop, and San Joaquin County). As discussed in Section 3.8, Hazards and Hazardous Materials, implementation of the proposed Project would not result in any significant impacts related to this environmental topic with the implementation of the mitigation measures provided in Section 3.8.

Impact 4.10: Cumulative Impact Related to Hazards and Hazardous Materials (Less than Significant and Less than Cumulatively Considerable)

The proposed Project, in conjunction with cumulative development in the region, would include areas designated for a variety of urban, agricultural, and open space uses as defined by the applicable General Plan. Cumulative development would include continued operation of, or development of, new facilities as allowed under each land use designation. New development would inevitably increase the use of hazardous materials within the region, resulting in potential health and safety effects related to hazardous materials use. For the most part, potential impacts associated with new and future development would be confined to commercial and industrial areas and would not involve the use of hazardous substances in large quantities or that would be particularly hazardous. Incidents, if any, would typically be site specific and would involve accidental spills or inadvertent releases. Associated health and safety risks would generally be limited to those individuals using the materials or to persons in the immediate vicinity of the materials and would not combine with similar effects elsewhere (i.e., construction workers), as hazard-related impacts tend to be site-specific and Project-specific.

The Project site is not associated with any existing hazardous materials spills; however, after agricultural operations cease, and development is anticipated to occur, the applicant or future project proponent would be required to hire a qualified consultant to perform site-specific soil sampling to determine if chemicals of potential concern associated with the historical agricultural uses at the Project site are present in shallow soil at concentrations that would pose a threat to human health. If results of the soil sampling identify concentrations of hazardous materials exceeding appropriate ESLs for the future site-specific use, on-site remediation would be required in coordination with the San Joaquin County Department of Environmental Health.

Implementation of the proposed Project would not result in significant increased risks of hazards in the cumulative setting area, nor would it result in any significant off-site or indirect impacts. Mitigation measures have been included to reduce the risk of on-site hazards associated with the use of on-site hazardous materials. Implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts related to hazards and hazardous materials would result in a ***less than cumulatively considerable contribution***.

HYDROLOGY AND WATER QUALITY

Potential cumulative issues associated with surface waters can be addressed on a watershed basis, or in the case of groundwater, in the context of a groundwater basin. Because water resources are highly interconnected, the cumulative setting is based on San Joaquin County which is located in the San Joaquin River Hydrological Region. Cumulative development in this region, including the proposed Project, would impact the water quality and hydrological features of the San Joaquin River Hydrologic Region. The City of Stockton and much of the surrounding area is located in the Eastern San Joaquin River Groundwater Basin. This groundwater basin covers approximately 1,105 square miles. Any matter that may affect water quality draining from the Project site will eventually end up in the Delta or within the groundwater basin.

Impact 4.11: Cumulative Increases in Peak Stormwater Runoff from the Project site (Less than Significant and Less than Cumulatively Considerable)

Implementation of the proposed Project would increase the amount of impervious surfaces in the Project site, which could increase peak stormwater runoff rates and volumes on and downstream of the Project site. However, the proposed Project includes an extensive system of on-site stormwater collection facilities to accommodate the increased stormwater flows that would originate in the Project site.

The Project proposes to construct two storm drain detention basins to provide flood control (flood control basins). The primary flood control basin will be approximately 28 acres located within the northwest corner of the Project site, east of the UPRR right-of-way. Additionally, the Project proposes to construct a storm drainage flood channel generally along the northern edge of Parcels 3, 4 and 5 of the Project's Tentative Map (see Figure 2.0-7). The flood control channel will connect to a proposed outfall to the primary flood control basin, generally located within the northeast area of the basin. A storm drain (ranging from 15 to 84 inches) is proposed within the proposed Commerce Drive right-of-way. The storm drain will extend from Commerce Drive along the southern and western edges of Parcel 1 of the Project's Tentative Map and connect to the proposed outfall to the primary detention basin. The proposed outfall and a storm drain pump station are proposed to be located generally within the southwest area of the basin.

The secondary flood control basin will be approximately 13 acres, located west of the UPRR right-of-way, between the future Commerce Drive and French Camp Slough. The proposed storm drain in Commerce Drive will connect to the proposed outfall to the flood control basin, generally located within the northeast area of the basin. An outfall from the basin to French Camp Slough will also be constructed.

According to the City of Stockton Stormwater Quality Control Criteria Plan (SWQCCP), the Project is considered a priority project as it would result in the development of more than 5,000 square feet of industrial/commercial developments. Priority projects are required to prepare and submit a Project Stormwater Quality Control Plan that demonstrates the Project incorporates site design measures, landscape features, and engineered treatment facilities (typically bioretention facilities) that will minimize imperviousness, retain or detain stormwater, slow runoff rates, and reduce pollutants in post-development runoff. In particular, the Project Stormwater Quality Control Plan will need to specify BMPs the project will use and design specifications for selected BMPs. The Project Stormwater Quality Control Plan must be submitted for review and approval by the City of Stockton Department of Municipal Utilities, as required by Mitigation Measure 3.9-2.

With the design and construction of flood control improvements, the proposed Project would not increase peak stormwater runoff. Implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts related to stormwater runoff would result in a ***less than cumulatively considerable contribution***.

Impact 4.12: Cumulative Impacts Related to Degradation of Water Quality (Less than Significant and Less than Cumulatively Considerable)

The proposed Project, along with several of the related projects within the City of Stockton, would ultimately discharge stormwater runoff to the nearby Delta waterways. This would potentially degrade the water quality of the system.

Construction of the proposed Project would contribute to a cumulative increase in urban pollutant loading, which could adversely affect water quality. Cumulative development in the Stockton area, including the proposed Project, would also result in increased impervious surfaces that could increase the rate and amount of runoff, thereby potentially adversely affecting existing surface water quality through increased erosion and sedimentation. The primary sources of water pollution include: runoff from roadways and parking lots; runoff from landscaping areas; non-stormwater connections to the drainage system; accidental spills; and illegal dumping. Runoff from roadway and parking lots could contain oil, grease, and heavy metals; additionally, runoff from landscaped areas could contain elevated concentrations of nutrients, fertilizers, and pesticides.

The proposed Project will be required to comply with Mitigation Measure 3.9-1 which requires the development and approval of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP will include Best Management Practices (BMPs) to regulate stormwater quality for the Project site which will be designed in accordance with the City of Stockton's NPDES issued by the Regional Water Quality Control Board (RWQCB).

While there are no assurances that other projects in the County would incorporate the same degree or methods of treatment as the proposed Project, several of the projects within the City of Stockton would phase out existing agricultural runoff discharges from their respective sites and, similar to the proposed Project, could provide some level of water quality improvement. Also, each related Project that would discharge stormwater runoff would be required to comply with NPDES discharge permits from the RWQCB, which adjusts requirements on a case-by-case basis to avoid significant degradation of water quality. Therefore, while a greater quantity of urban runoff may be discharged to the Delta system with implementation of the related projects, because of an increase in impervious surfaces, the associated surface water quality impacts would be expected to be less than significant because of improved or similar quality of runoff compared to existing conditions.

Compliance with City and County water quality protection regulations, approval from the RWQCB, and Mitigation Measure 3.9-1 would ensure that the proposed Project minimizes impacts to surface water quality. Implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts related to water quality would result in a ***less than cumulatively considerable contribution***.

Impact 4.13: Cumulative Impacts Related to Degradation of Groundwater Supply or Recharge (Less than Significant and Less than Cumulatively Considerable)

The proposed Project would result in new impervious surfaces and could reduce rainwater infiltration and groundwater recharge. Infiltration rates vary depending on the overlying soil types. In general, sandy soils have higher infiltration rates and can contribute to significant amounts of

ground water recharge; clay soils tend to have lower percolation potential; and impervious surfaces such as pavement significantly reduce infiltration capacity and increase surface water runoff.

The Project site is located in the Eastern San Joaquin County Groundwater Basin. The basin is not adjudicated; however, a groundwater management plan and groundwater sustainability plan have been prepared for the subbasin. In 2005, Stockton adopted the Eastern San Joaquin Groundwater Basin Groundwater Management Plan (San Joaquin County Department of Public Works, 2004) prepared by the Northeastern San Joaquin County Groundwater Banking Authority, replacing the 1995 Groundwater Management Plan. Given the subbasins critical state of overdraft, the Eastern San Joaquin Groundwater Authority (ESJGWA) was formed in 2017 and the Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan was adopted in November 2019.

The City of Stockton Metropolitan Area (COSMA) has three water retailers including the City of Stockton Municipal Utilities District (COSMUD), California Water Service Company (Cal Water), and San Joaquin County within their respective service areas. The Project site will receive its water from the COSMUD, which relies on purchased water from the Calaveras, Stanislaus, and Mokelumne Rivers; surface water from the San Joaquin Delta; and groundwater. According to the Water Supply Assessment (WSA) prepared by COSMUD for the Project, sufficient water supplies exist to meet the Project's build-out water demand as well as all existing and reasonably foreseeable water demands. Additionally, the WSA concludes that the existing near-term and long-term reliable supplies of surface water supplies and indigenous groundwater supplies can deliver a sustainable reliable water supply to meet existing and foreseeable water demands without impacting environmental values and/or impacting the current stabilization of the groundwater basin underlying the COSMA (COSMUD, October 2020).

Much of the groundwater recharge in the basin occurs in the sand and gravels along the San Joaquin River from Sierra snowmelt flowing downstream. Precipitation in the region is 13.81 inches, most of which falls between November through April. A portion of this annual rainfall infiltrates the soil and groundwater basin, while a portion is discharged downstream into the Delta. While the proposed Project would reduce the amount of pervious surfaces within the project site, the proposed project is designed to promote infiltration of groundwater in areas with pervious surface. Storm drainage flows in the Project site would be directed to one of two drainage basins, which include outfalls into the French Camp Slough. Additionally, the Project includes a drainage channel for flood control. In the event that Weber Slough overflows, the flood waters will spill into the flood channel and be directed to the northern onsite basin. Onsite stormwater runoff will be directed into an underground pipe system which will collect the runoff and direct it to the onsite basins. Upon compliance with Mitigation Measure 3.9-2, the Project will have incorporated site design measures, landscape features, and approved engineered treatment facilities (typically bioretention facilities) for water quality treatment that minimizes imperviousness, retains or detains stormwater, slows runoff rates, and reduces pollutants in post-development runoff consistent with the *City of Stockton NPDES SWMP*.

For the reasons mentioned above, the proposed Project would not cause the substantial depletion of groundwater supplies or interfere substantially with groundwater recharge. Implementation of

the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic.

Impact 4.14: Cumulative Impacts Related to Flooding (Less than Significant and Less than Cumulatively Considerable)

According to the Project's Hydrologic and Hydraulic Assessment, a majority of the Project site is located in Federal Emergency Management Agency (FEMA) designated Zone AO, where flood depths can reach one or more feet deep. A small portion of the Project site is also located within the New Melones Dam Inundation Area, as shown in Figure 3.9-3. The Hydrologic and Hydraulic Assessment included an analysis to determine potential impacts to the floodplain from placing fill to bring the finished floor elevation to three feet above highest adjacent grade. The Hydrologic and Hydraulic Assessment determined that there are no offsite impacts which would cause an increase in water surface greater than 0.05 feet due to Project implementation. (KSN, December 2020).

In addition to the above analysis, the Hydrologic and Hydraulic Assessment also included an evaluation of the proposed flood control system for the Project to determine if the proposed flood control system has sufficient capacity to both hold onsite run off and prevent offsite impacts from a 100-year flood event. The analysis was conducted under the assumption that the flood control basins would not be drained during the actual flood event. According to the Hydrologic and Hydraulic Assessment, the results of the analysis indicate that there are no offsite impacts and that the 100-year flood can be contained on site with runoff from the 10-year storm event being held in the north flood control basin (KSN, December 2020). Therefore, the Hydrologic and Hydraulic Assessment notes the applicant shall apply for a Conditional Letter of Map Revision based on Fill (CLOMR-F) based upon the effective FEMA floodplains, as required by Mitigation Measure 3.9-3.

The Project would not result in a flood hazard or result in the release of pollutants due to on- or off-site flooding due to development of the proposed Project upon implementation of Mitigation Measure 3.9-3. Implementation of the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic.

LAND USE AND POPULATION

The cumulative setting for land use and population impacts is the City of Stockton.

Impact 4.15: Cumulative Impact on Communities and Local Land Uses and Population (Less than Significant and Less than Cumulatively Considerable)

Land Use: Cumulative land use impacts, such as the potential for conflicts with adjacent land uses and consistency with adopted plans and regulations, are typically site- and Project-specific. The land uses, as proposed, are consistent with the General Plan. Although the proposed Project is consistent with the site's existing General Plan designations, due to limitations caused by the floodway along French Camp Slough and the location of drive entrances for surrounding developments, the alignment of the future Commerce Drive requires a General Plan Amendment of the two areas between Airport Way and the Union Pacific Railroad right-of-way. As seen on Figures 2.0-5 and 2.0-6 in Chapter 2.0, these areas are currently designated Commercial and Industrial and are zoned Commercial, General (CG) and Industrial, Light (IL), respectively. The current boundaries of the

designations will be modified to be consistent with the future Commerce Drive right-of-way center line. The area to the north of the Commerce Drive right-of-way centerline will be designated Commercial and zoned CG and the area to the south of the Commerce Drive right-of-way centerline will be designated Industrial and zoned IL. Figure 2.0-8 and Figure 2.0-9 in Chapter 2.0 show the proposed boundary modifications to the General Plan land use designations and Zoning districts for these two areas.

The Project is located within the City of Stockton City limits and will provide for employment-generating uses that will promote employment and economic development, and a mix of non-employment generating land uses, including open space, public facilities, and public roadway right-of-way land uses. The Project is consistent with the General Plan land use policies that encourage an orderly pattern of development in the areas surrounding the Airport and encourage employment- and tax-generating businesses that support the economic diversity of the City.

Approval of the General Plan amendment would ensure that the proposed Project would be substantially consistent with the Envision Stockton 2040 General Plan land use requirements and would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to the Stockton General Plan.

The Stockton Zoning Code implements the General Plan. The Project site is zoned IL (Industrial, Light), CG (Commercial, General), and OS (Open Space). Similar to the above, although the proposed Project is consistent with the site's existing Zoning designations, due to limitations caused by the floodway along French Camp Slough and the location of drive entrances for surrounding developments, the alignment of the future Commerce Drive requires a Rezone of the two areas between Airport Way and the Union Pacific Railroad right-of-way. These areas are currently zoned CG and IL, respectively. The current boundaries of the designations will be modified to be consistent with the future Commerce Drive right-of-way center line. The area to the north of the Commerce Drive right-of-way centerline will be zoned CG and the area to the south of the Commerce Drive right-of-way centerline will be zoned IL. Figure 2.0-9 in Chapter 2.0 shows the proposed boundary modifications to the Zoning districts for these two areas.

These proposed zone changes would ensure that zoning would be consistent with the proposed General Plan designations within the Project site. The zoning ordinance establishes permitted uses, development densities and intensities, and development standards for each zone to ensure that public health, safety, and general welfare are protected, consistent with the purpose of the Zoning Code. All existing City development standards and zoning requirements for the proposed zoning are applicable to any activities on the Project site.

The City will review each component of the proposed Project as plans (improvement plans, building plans, site plans, etc.) are submitted for final approval to ensure that they are consistent with the City's Zoning ordinance. Approval of the zone change would ensure that the proposed Project would be consistent with the Zoning Code and will have a ***less than significant*** and ***less than cumulatively considerable*** relative to this topic.

4.0 OTHER CEQA-REQUIRED TOPICS

Population: Continued development in Stockton and San Joaquin County will result in housing unit and population increases in the region. The Project would not directly introduce new residents to the City as no housing is proposed as part of the Project. It is noted, however, that some portion of the proposed Project employees could become Stockton residents.

The proposed Project is expected to require approximately 3,200 new jobs (2,880 industrial, 130 food and 190 retail) to the southern part of the City, calculated using the Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition, consistent with the Traffic Study prepared for the proposed Project (Fehr & Peers, 2021). It is anticipated that the employment growth would be met both by existing residents and through the attraction of new residents. The Project would establish a variety of business opportunities that can support the skilled and educated workforce of Stockton and the local area. Estimating the number of these future employees who would relocate to the City would be highly speculative, because many factors influence personal housing location decisions (i.e., family income levels and the cost and availability of suitable housing in the local area). Thus, the number of new employees who may relocate to the City to fill the newly created positions is unknown.

Infrastructure needed to support development of the Project site and the subsequent employment increases expected through implementation of the Project have already been planned and evaluated. The employment-generating land uses proposed by the Project would not change from what was analyzed in the General Plan EIR. The proposed Project is not anticipated to exceed the planned growth (directly or indirectly) in the area beyond what is anticipated in the City's General Plan.

The proposed Project, when considered alongside all past, present, and probable future projects (inclusive of buildout of the various General Plans within San Joaquin County), would not be expected to cause any significant cumulative impacts. The proposed Project would not have cumulatively considerable impacts associated with population and housing. As such, implementation of the proposed Specific Plan would have a ***less than significant*** and ***less than cumulatively considerable*** contribution to impacts to population.

NOISE

The cumulative setting for noise impacts consists of the existing and future noise sources that could affect the Project site or surrounding uses.

Impact 4.16: Cumulative Exposure of Existing and Future Noise-Sensitive Land Uses to Increased Noise Resulting from Cumulative Development (Less than Significant and Less than Cumulatively Considerable)

Noise generated by construction would be temporary, and would not add to the permanent noise environment or be considered as part of the cumulative context. The total noise impact of the proposed Project would be fairly small and would not be a substantial increase to the existing future noise environment. Thus, the proposed Project would result in a less-than-significant cumulative impact.

Operational Noise: Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways and on-site activities resulting from operation of the proposed Project. The primary non-transportation noise sources associated with the proposed Project are on-site parking lot circulation and the loading docks. Table 3.11-9 in Section 3.11, Noise, shows cumulative traffic noise levels with and without the proposed Project. As discussed in Section 3.11, the Project would not result in significant increases in traffic noise levels at existing sensitive receptors under the Cumulative Plus Project condition. Non-transportation noise would also comply with the maximum noise level limits. Implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts related to cumulative operational noise would result in a ***less than cumulatively considerable contribution***.

Construction Noise: Noise generated by construction would be temporary, and would not add to the permanent noise environment or be considered as part of the cumulative context. Compliance with the City's permissible hours of construction, as well as implementing the best management noise reduction techniques and practices (both outlined in Mitigation Measure 3.11-2), would ensure that construction noise would not result in a substantial temporary increase in ambient noise levels that would result in annoyance or sleep disturbance of nearby sensitive receptors. Implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts related to cumulative construction noise would result in a ***less than cumulatively considerable contribution***.

Cumulative Conclusion: The operational noise from the proposed Project is not expected to produce noise levels that would exceed City or County standards. Consequently, the total noise impact of the proposed Project would not be a substantial increase to the future noise environment. The proposed Project would result in a ***less-than-significant*** cumulative impact.

PUBLIC SERVICES AND RECREATION

Cumulative setting would include all areas covered in the service areas of the City of Stockton Fire Department, Police Department, Parks and Recreation Department, the Manteca Unified School District, and any other relevant public services.

Impact 4.17: Cumulative Impact on Public Services (Less than Significant and Less than Cumulatively Considerable)

Implementation of the proposed Project would contribute toward an increased demand for public services and facilities within the City of Stockton. It has been determined that the impacts to the Stockton Police, Stockton Fire, Parks and Recreation Department, and Manteca Unified School District would be less-than-significant. The proposed Project would be subject to all fees that are paid toward the enhancement of public services within the region. Payment of the applicable development fees by the Project applicant, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the proposed Project, would assist in maintaining existing fire, police, schools, and park services. Implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts related to public services would result in a ***less than cumulatively considerable contribution***.

TRANSPORTATION AND CIRCULATION

The cumulative setting for this analysis including the City of Stockton Sphere of Influence (SOI) and nearby areas of the County. The analysis models the overall change in vehicle-miles-traveled (VMT) in Stockton as a result of forecast development, with the addition of the proposed Project. The intent is to understand how the proposed Project will influence travel behavior in light of future conditions, and to identify possible significant future impacts. The year 2040 is the horizon year for cumulative condition impact analyses.

Impact 4.18: Under Cumulative conditions, the proposed Project would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) (Significant and Unavoidable and Cumulatively Considerable)

Analysis for the cumulative scenarios was completed using the Envision Stockton 2040 General Plan Travel Demand Model. The cumulative year model reflects roadway improvements and land use projections consistent with the SJCOG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), City of Stockton General Plan, and the surrounding San Joaquin County General Plan, City of Manteca General Plan, and City of Lathrop General Plan.

Table 3.13-3 in Section 3.13 summarizes the results of the VMT analysis for home-based work trips per employee for Baseline and Cumulative With Project Conditions. The following key findings are derived from the VMT analysis:

- According to the City of Stockton Baseline (Existing) Travel Demand Model, the Citywide average daily home-based work VMT per worker is 18.56 miles. This includes a mix of employees who both live and work in the City of Stockton and employees that travel to and from neighboring cities to work in the City of Stockton.
- According to the Envision Stockton 2040 General Plan Travel Demand Model, the City is projected to add a mix of jobs that would increase employment opportunities for both existing and future residents. This would improve the jobs/housing balance in the City of Stockton and theoretically reduce the Citywide average daily home-based work VMT per worker.
- On the other hand, the General Plan – Envision Stockton 2040 Travel Demand Model is projected to generate an average daily home-based work VMT per worker (19.73) that is greater than the City of Stockton’s Baseline (existing) average daily home-based work VMT per worker (18.56).
- Regardless of this projected increase in the average daily home-based work VMT per worker, the goal of the City of Stockton is to decrease the Citywide average daily home-based work VMT per worker from 18.56 miles to 15.78 miles, a 15.0 percent reduction when compared to Baseline (Existing) Conditions.
- According to the Envision Stockton 2040 General Plan Travel Demand Model, the proposed Project would result in a total of 3,200 new jobs (2,880 industrial, 130 food and 190 retail). The Project’s average daily home-based work VMT per worker is projected to be 21.05 mile. This is 2.49 miles (13.4 percent) higher when compared to Baseline (Existing) Conditions.

Mitigation Measure 3.13-1, which requires travel demand management (TDM) strategies to reduce the increase in VMT associated with the proposed Project, would be required. Nevertheless, the impact is considered **significant and unavoidable** and **cumulatively considerable**.

Impact 4.19: Under Cumulative conditions, the proposed Project would not adversely affect pedestrian and bicycle facilities (Less than Significant and Less than Cumulatively Considerable)

Implementation of the proposed Project would not result in a conflict with an existing or planned pedestrian facility, bicycle facility, or transit service/facility. In addition, the Project would not interfere with the implementation of a planned bicycle facility, pedestrian facility, or transit service/facility. The Project would not cause a degradation in transit service such that service does not meet performance standards established by the transit operator.

Implementation of the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic.

UTILITIES AND SERVICE SYSTEMS

The cumulative setting includes all areas covered in the service areas of the City's wastewater system, water system, stormwater system, and the solid waste collection and disposal services. Under General Plan buildout conditions, the City would see an increased demand for water service, sewer service, solid waste disposal services, and stormwater infrastructure needs.

Impact 4.20: Cumulative Impact on Wastewater Utilities (Less than Significant and Less than Cumulatively Considerable)

The City of Stockton owns and operates a wastewater collection, treatment, and disposal system, and provides sewerage service to the City of Stockton. On April 1, 2020, the RWQCB adopted Waste Discharge Requirements (WDRs) Board Order Number R5-2020-0007, NPDES CA0079138, prescribing waste discharge requirements for the City of Stockton Regional Wastewater Control Facility (RWCF).

The City of Stockton's wastewater treatment system is currently in compliance with the waste discharge requirements of Order Number R5-2020-0007, NPDES CA0079138. The wastewater treatment system options covered under this Order include: City of Stockton RWCF, including discharge to the San Joaquin River. The development of the proposed Project under this permitted option would not exceed the wastewater discharge requirements in this Order as described under Impact 3.14-1 in Section 3.14. Implementation of the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic.

The wastewater collection and conveyance system that will serve the proposed Project will consist of engineered infrastructure consistent with the City's approved Tidewater Crossing Sewer Master Plan requirements. The wastewater collection and conveyance system that will serve the proposed Project will consist of engineered infrastructure consistent with the City's existing infrastructure requirements. A sewer pump station is proposed to be located at the northeast corner of Airport Way and the future Commerce Drive. A sewer line (ranging from 8 to 24 inches) will be located

4.0 OTHER CEQA-REQUIRED TOPICS

within the proposed Commerce Drive right-of-way. Within the western portion of Parcel 2, the sewer line within the Commerce Drive right-of-way will shift north outside of the Commerce Drive right-of-way into Parcel 2 and extend west along the southern edge of Parcel 1, continuing under the UPRR right-of-way. West of the UPRR right-of-way, the sewer line will extend into the proposed Commerce Drive right-of-way. The 24-inch sewer line within Commerce Drive will connect to a proposed 36-inch sewer line within Airport Way whereupon it will flow to a proposed regional sewer pump station located at the intersection of Airport Way and Commerce Drive. The off-site sewer improvements (including upsized gravity sewer pipeline and sanitary sewer force mains) would be located along the western site frontage on Airport Way, head north along Airport Way, and terminate in Airport Way and Industrial Drive to the north. Specifically, an 18-inch force main within Airport Way will extend from the regional sewer pump station to the intersection of Arch Airport Road and Airport Way where it will connect to a gravity pipeline. This gravity pipeline will be upsized from an existing 33-inch gravity sewer pipeline to a 48-inch gravity sewer pipeline. The 48-inch gravity pipeline will extend to the intersection of Industrial Drive. The existing facilities, including the Stockton RWCF, have undergone environmental review and have waste discharge permits from the State.

New wastewater collection and conveyance infrastructure needed for the proposed Project would require trenching/excavation of earth, and placement of pipe within the trenches at specific locations, elevations, and gradients. All onsite wastewater utility improvements would be within existing agricultural lands or land currently developed with roadways (i.e., Airport Way), the impacts of which are discussed in Section 3.2 Agricultural Resources and throughout this EIR. Implementation of the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic.

Based on the generation factors for commercial and industrial lands uses in the City of Stockton, the proposed Project is estimated to generate approximately 199,240 gallons per day (gpd) of wastewater or approximately 0.5% of the City's current 35 million gallons per day (MGD) current dry weather flow. The proposed Project would increase the amount of wastewater requiring treatment. The wastewater would be treated at the RWCF. Occupancy of the proposed Project would be prohibited without an issuance of sewer allocation as required by Stockton Municipal Code Section 13.12.100, Mandatory Sanitary Service Required. An issuance of sewer allocation from the City's available capacity would ensure that there would be a final determination by the wastewater treatment and/or collection provider that there is adequate capacity to serve the proposed Project's projected demand in addition to the provider's existing commitments.

The Project by itself does not exceed the existing capacity of the wastewater treatment plant. The Project and any future cumulative projects would be required to secure adequate wastewater treatment capacity/allocation prior to occupancy of any building which would require wastewater treatment services. Implementation of the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic.

Impact 4.21: Cumulative Impact on Water Utilities (Less than Significant and Less than Cumulatively Considerable)

The proposed Project would require extension of offsite water conveyance infrastructure to the Project site for potable water and irrigation water. All offsite water utility improvements will be in or adjacent to existing roadways along the perimeter of the Project site, thereby limiting any potential impact to areas that were not already disturbed. The proposed Project would also require the construction of new onsite water conveyance infrastructure for potable water and irrigation water.

Water supply will be provided by the City of Stockton, which includes surface and ground water supplies. Water distribution will be by an underground distribution system installed as per the City of Stockton standards and specifications. Underground potable water pipelines (24 inch) would be extended to the Project site as part of the Newcastle Water Main Extension Project. The proposed Project will also be required to provide the City with a 0.5-acre well site for the development of a future potable water well to serve area needs.

The proposed Project would also require the construction of new onsite water conveyance infrastructure for potable water and irrigation water. The Newcastle Water Line Project, an approved Capital Improvement Project within the City of Stockton, will run through the Project site within the future right-of-way of Commerce Drive to serve existing and future development in the area. This Capital Improvement Project is intended to accommodate additional projects and induce growth outside of the proposed Project area. However, this Capital Improvement Project was previously analyzed and contemplated for growth and service capacity within the City's Water Master Plan and therefore, construction of the onsite potable water infrastructure would not have the potential to induce growth beyond what was already analyzed within the City's Master Plans. It should be noted that the potential environmental impacts associated with off-site infrastructure improvements associated with the larger Tidewater Crossing Project, which included the SSCC Project site, were analyzed as part of the Tidewater Crossing Project Environmental Impact Report (SCH No. 2005122101) certified on October 28, 2008. The Tidewater Crossing Project and the associated infrastructure improvements are considered baseline conditions.

The proposed Project would not require the construction of new water treatment facilities or expansion of existing water treatment facilities for water service. The City has adequate water supplies to support existing demand in the City in addition to the proposed Project under average daily and maximum daily demand conditions. Water demand for current and proposed uses in the City of Stockton is approximately 26,319 acre-feet per year (AFY) (in Year 2015). The City has a total supply of 96,480 AFY (Year 2015), leaving 70,161 AFY available. According to the WSA prepared for the project, the proposed Project's water demand would be approximately 626 AFY.

The Water Supply Assessment completed for the proposed Project demonstrates that the City's existing and available potable water supplies are sufficient to meet the City's existing and projected future potable water demands to the year 2040 under all hydrologic conditions. Implementation of the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic.

Impact 4.22: Cumulative Impact on Stormwater Facilities (Less than Significant and Less than Cumulatively Considerable)

The Project proposes to construct two storm drain detention basins to provide flood control. The primary basin will be approximately 28 acres located within the northwest corner of the Project site, east of the UPRR right-of-way. The Project proposes to construct a storm drainage flood channel generally along the northern edge of Parcels 3, 4 and 5. The drainage channel will connect to a proposed outfall to the detention basin, generally located within the northeast area of the basin. A storm drain (ranging from 15 to 84 inches) is proposed within the proposed Commerce Drive right-of-way. The storm drain will extend from Commerce Drive along the southern and western edges of Parcel 1 and connect to the proposed outfall to the detention basin. The proposed outfall and a storm drain pump station are proposed to be located generally within the southwest area of the basin.

The secondary basin will be approximately 13 acres, located west of the UPRR right-of-way, between the future Commerce Drive and French Camp Slough. The proposed storm drain in Commerce Drive will connect to the proposed outfall to the detention basin, generally located within the northeast area of the basin. An outfall from the basin to French Camp Slough will also be constructed (exact size and location to be determined).

The potential environmental effects resulting from construction of the storm drainage system are analyzed throughout this Draft EIR, and in some cases, there are potentially significant impacts associated with construction of this infrastructure. Where impacts are identified for each environmental topic, mitigation measures are developed to avoid, minimize, or compensate for the impact to the extent practicable. All mitigation measures presented throughout this EIR will be implemented to reduce impacts to the extent practicable. There will not be any significant impacts beyond what is disclosed in the other chapters of this document. Implementation of the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic.

Impact 4.23: Cumulative Impact on Solid Waste Facilities (Less than Significant and Less than Cumulatively Considerable)

Solid waste generated by the proposed Project was estimated based on CalRecycle generation rate estimates by use (discussed below). The permitted maximum disposal at the Foothill Landfill is 1,500 tons per day. The remaining capacity is 125,000,000 cubic yards with an anticipated closure year of 2055. The permitted maximum disposal at the North County Landfill is 1,200 tons per day. The remaining capacity is 35,400,000 cubic yards with an anticipated closure year of 2048.

The commercial portion of the Project site is estimated to generate roughly five pounds per day per 1,000 square feet. It is estimated that the 467,834 square feet of commercial space would generate 2,339 pounds per day of solid waste.

The industrial portion of the Project site is estimated to generate roughly five pounds per day per 1,000 square feet. It is estimated that 12,960,747 square feet of industrial space would generate roughly 64,803 pounds per day of solid waste. Note, this estimate of the square footage for the

commercial and industrial space is considered a worst-case scenario and may prove to be an overestimate.

The total solid waste generated by the proposed Project is estimated to be 33.57 tons per day. Solid waste generated in the City is disposed at the Forward Landfill. This landfill is projected to close in the year 2020. An expansion was approved by the Board of Supervisors earlier this year to extend the life of the landfill. When the Forward Landfill no longer has capacity, the City can utilize the Foothill Landfill as a location for solid waste disposal. The City's solid waste per capita generation has decreased since 2007 due to the waste diversion efforts of the City. The permitted maximum disposal at the Forward Landfill is 8,668 tons per day. The permitted vehicle limit is 620 vehicles per day; however, the landfill averages 212 daily trucks.¹ The remaining capacity of the landfill is 22.1 million cubic yards. The addition of solid waste associated with the proposed Project, approximately 15,537.5 pounds or 7.77 tons per day (9.17 cubic yards per day) at total buildout, to the Forward Landfill would not exceed the landfill's remaining capacity.

The proposed Project would be required to comply with applicable state and local requirements including those pertaining to solid waste, construction waste diversion, and recycling. In conclusion, implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. Thus, impacts related to solid waste facilities would be a ***less than cumulatively considerable contribution***.

4.2 SIGNIFICANT IRREVERSIBLE EFFECTS

LEGAL CONSIDERATIONS

CEQA Section 15126.2(c) and Public Resources Code Sections 21100(b)(2) and 21100.1(a), require that the EIR include a discussion of significant irreversible environmental changes which would be involved in the proposed action should it be implemented. Irreversible environmental effects are described as:

- The project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of a project would generally commit future generations to similar uses (e.g., a highway provides access to previously remote area);
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing of the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Determining whether the proposed Project would result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed such that there would be

¹ San Joaquin County Community Development Department. Draft Environmental Impact Report – Forward Landfill Expansion (SCH#2008052024). September 2012. Page III-13.

little possibility of restoring them. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Analysis

Implementation of the proposed Project would result in the conversion of approximately 422 acres of land comprised of active agricultural fields for the development of industrial, commercial, open space, public facilities, and public roadway right-of-way land uses. Development of the proposed Project would constitute a long-term commitment to these uses. It is unlikely that circumstances would arise that would justify the return of the land to its previous condition as agricultural or vacant rural land.

A variety of resources, including land, energy, water, construction materials, and human resources would be irretrievably committed for the initial construction, infrastructure installation and connection to existing utilities, and its continued maintenance. Construction of the proposed Project would require the commitment of a variety of other non-renewable or slowly renewable natural resources such as lumber and other forest products, sand and gravel, asphalt, petrochemicals, and metals.

Additionally, a variety of resources would be committed to the ongoing operation and life of the proposed Project. The introduction of industrial uses to the Project site will result in an increase in area traffic over existing conditions. Fossil fuels are the principal source of energy and the proposed Project will increase consumption of available supplies, including gasoline and diesel. These energy resource demands relate to initial Project construction, Project operation and site maintenance and the transport of people and goods to and from the Project site.

4.3 SIGNIFICANT AND UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. The following significant and unavoidable impacts of the proposed Project are discussed in Chapters 3.1 through 3.14 and previously in this chapter (cumulative-level). Refer to those discussions for further details and analysis of the significant and unavoidable impact identified below:

- Impact 3.1-1: Project implementation may result in substantial adverse effects on scenic vistas and resources or substantial degradation of visual character
- Impact 3.2-1: The proposed Project would result in the conversion of Farmlands, including Prime Farmland and Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses
- Impact 3.3-1: Project operations would result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment, or conflict or obstruct implementation of the District's air quality plan

- Impact 3.3-2: Proposed Project construction activities would result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment, or conflict or obstruct implementation of the District's air quality plan
- Impact 3.7-1: Project implementation would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases
- Impact 3.13-1: Project implementation would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)
- Impact 4.2: Cumulative Degradation of the Existing Visual Character of the Region
- Impact 4.4: Cumulative Impact on Agricultural Resources
- Impact 4.5: Cumulative Impact on the Region's Air Quality
- Impact 4.9: Cumulative Impact on Climate Change from Increased Project-Related Greenhouse Gas Emissions
- Impact 4.18: Under Cumulative conditions, the proposed Project would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)

4.4 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the CEQA Guidelines requires an EIR to “discuss the ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth...” In general terms, a project may result in a significant growth-inducing impact if it individually or cumulatively with other projects results in any of the actions described in the following examples:

- The project removes an obstacle to growth, such as: the establishment of an essential public service, the provision of new access to an area, or a change in zoning or general plan designation.
- The project results in economic expansion, population growth or the construction of additional housing occurs in the surrounding environment in response to the project, either directly or indirectly.

Existing storm drain, sewer, water, and gas lines/pipes are currently located along Commerce Drive and Airport Way. The Project would be served by existing sewer, water and other utility services that have been established on the Project site and in the Project area. Access to the Project would be provided by existing roads and proposed roadways. The main entry and exit point would be located along Airport Way. Therefore, the proposed Project would not require an extension of public services that have the potential to result in or facilitate unplanned growth in the Project area.

The proposed Project would provide employment opportunities for City and County residents on a site that has been planned for industrial development by the City of Stockton General Plan and associated EIR. Overall, the additional industrial uses in the City would not have the long-term effect of inducing population growth.

4.0 OTHER CEQA-REQUIRED TOPICS

The Project would result in an increase in employment opportunities by creating full-time job positions. The Project would also generate short-term construction employment opportunities, but these opportunities would not result in substantial population growth in the project region. Therefore, the proposed Project would not result in significant growth inducing impacts.

5.1 CEQA REQUIREMENTS

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) analyze a reasonable range of feasible alternatives that meet most or all project objectives while reducing or avoiding one or more significant environmental effects of the project. The range of alternatives required in an EIR is governed by a “rule of reason” that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice (CEQA Guidelines Section 15126.6[f]). Where a potential alternative was examined but not chosen as one of the range of alternatives, the CEQA Guidelines require that the EIR briefly discuss the reasons the alternative was dismissed.

PROJECT OBJECTIVES

The principal objective of the proposed Project is the approval and subsequent implementation of the South Stockton Commerce Center (SSCC) Project (the proposed Project). The proposed Project involves the development of approximately 422-acres of land which will include: industrial uses, commercial uses, open space, public facilities, and public roadway right-of-way land uses, as described below.

The Project area aims to develop in multiple phases, a well-planned industrial type project that will attract businesses to the City of Stockton and provide for local employment opportunities. The Project also provides for a seamless expansion of the existing industrial area located in southeast Stockton, in the vicinity of the Stockton Airport, and creates the opportunity for rail served parcels from the adjacent Union Pacific rail line.

The following objectives have been identified for the proposed SSCC Project:

- Logical Expansion of Industrial Area: Seamless expansion of the existing industrial area around the Stockton Airport and being positioned to easily access multiple forms of transportation (i.e., rail, air, multiple state highways (I-5 and SR-99) and local road network).
- Develop a Class A Industrial Complex and Amenities: The large-scale development (298 acres of industrial uses) provides for a class A-type industrial complex with a variety of building sizes suited for a variety of end users, landscaped roadways and open space elements along French Camp Slough.
- Employment Opportunities: Provide for local and regional employment opportunities that take advantage of the Project area’s high level of accessibility, allow for the expansion of the City’s economic base, help create a jobs/housing balance, and reduce the commute for regional residents.
- Improve Circulation: Create safe access to the industrial area by constructing an overpass of the Union Pacific Railroad line.
- Enhance Transportation: Create the ability to develop rail service to the three largest parcels within the SSCC Project Area, if needed.
- Public Facilities and Services: Provide infrastructure and services that meet City standards and integrate with existing and planned facilities.

5.0 ALTERNATIVES TO THE PROPOSED PROJECT

- Phasing: Establish a logical phasing plan designed to ensure that each phase of development would include necessary public improvements required to meet City standards.

ALTERNATIVES NOT SELECTED FOR FURTHER ANALYSIS

A Notice of Preparation was circulated to the public to solicit recommendations for a reasonable range of alternatives to the proposed Project. Additionally, a public scoping meeting was held during the public review period to solicit recommendations for a reasonable range of alternatives to the proposed Project. No specific alternatives were recommended by commenting agencies or the general public during the NOP public review process.

The City of Stockton considered alternative locations early in the public scoping process. The City's key considerations in identifying an alternative location were as follows:

- Is there an alternative location where significant effects of the Project would be avoided or substantially lessened?
- Is there a site available within the City's Sphere of Influence with the appropriate size and characteristics such that it would meet the basic Project objectives?

The City's consideration of alternative locations for the Project included a review of previous land use planning and environmental documents in Stockton including the General Plan. The search included a review of lands in the south part of Stockton that are located within the Sphere of Influence and is otherwise suitable for development. It was found that much of the undeveloped land located to the west of the Project site is located within a 100-, 200-, or 500-year flood plain. The areas within the 200-year flood plain are severely constrained and are not developable until the City of Stockton is able to design, fund, and construct a solution to protect this area from the 200-year flood plain. The City has found that there are no feasible alternative locations that exist within the City's Sphere of Influence with the appropriate size and characteristics that would meet the basic Project objectives and avoid or substantially lessen a significant effect. The City has determined that alternative locations outside the Sphere of Influence would not be feasible because an expansion of the Sphere of Influence would induce unplanned growth and cause impacts greater than development on the Project site. For these reasons, the City of Stockton determined that there are no feasible alternative locations.

In addition, as discussed in *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553 (Goleta II), where a project is consistent with an approved general plan, no off-site alternative need be analyzed in the EIR. The EIR "is not ordinarily an occasion for the reconsideration or overhaul of fundamental land-use policy." (Goleta II, supra, 52 Cal.3d at p. 573.) In approving a general plan, the local agency has already identified and analyzed suitable alternative sites for particular types of development and has selected a feasible land use plan. "Informed and enlightened regional planning does not demand a project EIR dedicated to defining alternative sites without regard to feasibility. Such ad hoc reconsideration of basic planning policy is not only unnecessary, but would be in contravention of the legislative goal of long-term, comprehensive planning." (Goleta II, supra, 52 Cal.3d at pp. 572-573.) The proposed Project is generally consistent with the types of uses considered in the Stockton General Plan and associated EIR. Further, the proposed Project is

consistent with the site's existing General Plan designations, but due to limitations caused by the floodway along French Camp Slough and the location of drive entrances for surrounding developments, the alignment of the future Commerce Drive requires a General Plan Amendment for the two areas between Airport Way and the Union Pacific Railroad right-of-way. These areas are currently designated Commercial and Industrial. The current boundaries of the designations will be modified to be consistent with the future Commerce Drive right-of-way center line. The area to the north of the Commerce Drive right-of-way centerline will be designated Commercial and the area to the south of the Commerce Drive right-of-way centerline will be designated Industrial.

Thus, in addition to the reasons discussed above, an off-site alternative need not be further discussed in this EIR.

5.2 ALTERNATIVES CONSIDERED IN THIS EIR

Three alternatives to the proposed Project were developed based on input from City staff and the technical analysis performed to identify the environmental effects of the proposed Project. The alternatives analyzed in this EIR include the following three alternatives in addition to the proposed Project.

- **No Project (No Build) Alternative:** Under this alternative, development of the Project site would not occur, and the Project site would remain in its current existing condition.
- **Reduced Project Alternative:** Under this alternative, the proposed Project would be developed with the same types of commercial, industrial, open space, and public facility uses as described in the Project Description, but the commercial and industrial square footage would decrease by 25 percent, the amount of open space would decrease by 25 percent, and the amount of developed land would decrease by 25 percent.
- **Agriculture Protection Alternative:** Under this alternative, the proposed Project would be developed in such a way to protect some of the on-site Important Farmland by reducing the overall footprint of the developed areas to a greater extent than the Reduced Project Alternative.

NO PROJECT (NO BUILD) ALTERNATIVE

Under the No Project (No Build) Alternative development of the Project site would not occur, and the Project site would remain in its current existing condition. The Project site is currently comprised of active agricultural fields. The majority of the fields produce watermelons, with a walnut orchard located in the eastern portion of the site. It is noted that the No Project (No Build) Alternative would fail to meet the Project objectives identified by the City of Stockton.

REDUCED PROJECT ALTERNATIVE

Under the Reduced Project Alternative, the proposed Project would be developed with the same types of commercial, industrial, open space, and public facility uses as described in the Project Description, but the commercial and industrial square footage would decrease by 25 percent, the amount of proposed, on-site open space would decrease by 25 percent, and the amount of developed land would decrease by 25 percent. Under the Reduced Project Alternative, the total

5.0 ALTERNATIVES TO THE PROPOSED PROJECT

Project area would decrease from 422.22 acres under the proposed Project to 316.67 acres. The remaining 105.55 acres outside of the Reduced Project Alternative area would remain in their current condition (agricultural and open space uses). The 105.55 acres, which would not be included in the development area for this alternative, would be located in the western and southern portions of the site in order to ensure continued preservation of French Camp Slough.

The amount of commercial uses would decrease from 467,834 square feet (sf) to 350,875 sf, the amount of industrial uses would decrease from 12,960,747 sf to 9,720,560 sf, and the open space area would decrease from 54 acres to 40.5 acres. Because the amount of urban development would decrease, the size of the storm basins would also decrease. This would result in a decrease from 41 acres of public facility uses to 30.75 acres. The areas developed with urban uses would be located in the eastern portion of the Project site. In order to maintain the proposed rail service under this alternative, the industrial uses would be located adjacent east of the Union Pacific Railroad (UPRR) line.

AGRICULTURE PROTECTION ALTERNATIVE

Under the Agriculture Protection Alternative, the proposed Project would be developed in such a way to protect some of the on-site Important Farmland by reducing the overall footprint of the developed areas to a greater extent than the Reduced Project Alternative. The reasoning behind this alternative is to present an alternative to protect some of the agricultural land on the Project site. Development of the proposed Project would result in the permanent conversion of 158.6 acres of Prime Farmland, 259.3 acres of Farmland of Statewide Importance, and 4.3 acres of Unique Farmland.

Under this alternative, the proposed Project would be developed with the same components as described in the Project Description, but the size of the industrial and commercial areas would be reduced resulting in an increase of undeveloped land beyond the Reduced Project Alternative. The commercial and industrial uses would be two-story in order to reduce the developed area footprint by approximately 50 percent while providing the same square footage as the Project. The 11.0-acre commercial area would be reduced to 5.5 acres, the 298.0-acre industrial area would be reduced to 149.0 acres, and the 54.0-acre open space area would be reduced to 27.0 acres. The total acreage dedicated to the proposed Project would be reduced by approximately 50 percent. The total acreage developed would be 211.11 acres, with 211.11 acres remaining in its current state. The 211.11 acres which would not be included in the development area for this alternative would be located in the western portion of the site in order to ensure continued preservation of French Camp Slough. Because the development areas would be contained within the eastern half of the Project site, the UPRR would not be utilized under this alternative.

5.3 ENVIRONMENTAL ANALYSIS

The alternatives analysis provides a summary of the relative impact level of significance associated with each alternative for each of the environmental issue areas analyzed in this EIR. Following the analysis of each alternative, Table 5.0-1 summarizes the comparative effects of each alternative.

NO PROJECT (NO BUILD) ALTERNATIVE

Aesthetics and Visual Resources

As described in Section 3.1, the visual character of the Project site would be significantly altered as a result of Project implementation. Consistency with the General Plan, Stockton Zoning Ordinance, and development standards would ensure that impacts are reduced to the greatest extent possible. Nevertheless, impacts related to degradation of the visual character of the site would be significant and unavoidable.

Implementation of the lighting plan required by Mitigation Measure 3.1-1 would ensure that lighting features do not result in light spillage onto adjacent properties and do not significantly impact views of the night sky. Adherence to the mitigation measure would ensure that excessively reflective building materials are not used, and that the proposed Project would not result in significant impacts related to daytime glare. As such, impacts related to nighttime lighting and daytime glare would be less than significant with mitigation.

The No Project (No Build) Alternative would leave the Project site in its existing state and would not result in increases in daytime glare or nighttime lighting. The visual character of the Project site would not change under this alternative compared to existing conditions.

The proposed Project would result in potentially significant new sources of light and glare. The proposed Project would also result in impacts to the existing visual character or quality of the Project site and its surroundings. However, the No Project (No Build) Alternative would avoid these impacts altogether. As such, this impact would be reduced when compared to the proposed Project.

Agricultural Resources

Currently, the majority of the Project site is used for agricultural purposes. Development of the proposed Project would result in the permanent conversion of 158.6 acres of Prime Farmland, 259.3 acres of Farmland of Statewide Importance, and 4.3 acres of Unique Farmland. The No Project (No Build) Alternative would result in no development on the Project site. As such, this alternative would have no impact on agricultural land, no potential for conflicts with existing agricultural resources, and no potential for conflict with regulations and plans intended to protect those resources. As such, this impact would be reduced when compared to the proposed Project.

Air Quality

Under buildout conditions in the San Joaquin County, the San Joaquin Valley Air Basin (SJVAB) would continue to experience increases in criteria pollutants and efforts to improve air quality throughout the basin would be hindered. As described in Section 3.3, San Joaquin County has a state designation of Nonattainment for ozone, PM₁₀ and PM_{2.5}. Table 3.3-2 in Section 3.3 presents the State and Federal attainment status for San Joaquin County.

As discussed under Impact 3.3-1 in Section 3.3, operational emissions would exceed the San Joaquin Valley Air Pollution Control District (SJVACPD) thresholds of significance for CO, NO_x, ROG, PM₁₀, and PM₁₀. Therefore, the proposed Project is required to implement all feasible mitigation to reduce

5.0 ALTERNATIVES TO THE PROPOSED PROJECT

criteria pollutant emissions to below the applicable SJVAPCD thresholds of significance. The proposed Project would implement Mitigation Measure 3.3-1 through Mitigation Measure 3.3-18 included in Section 3.3. However, even with implementation of all feasible mitigation, it may not be feasible for all individual phases of development within the Project site (and thereby the Project as a whole) to reduce operational emissions at full Project buildout below the applicable thresholds.

As discussed in Impact 3.3-2 in Section 3.3, none of the Project annual construction emissions would exceed the SJVAPCD thresholds of significance. Nevertheless, regardless of emission quantities, the SJVAPCD requires construction related mitigation in accordance with their rules and regulations. Implementation of the Mitigation Measure 3.3-19 through 3.3-22 included in Section 3.3 would further reduce proposed Project construction related emissions to the extent possible. Additionally, as discussed in Impact 3.3-3 of Section 3.3, a health impact analysis has been prepared for the proposed Project to analyze the potential health risks associated with increased trucks to the Project site and surrounding roadways associated with the development and operation of the proposed industrial and commercial uses. The source of toxic air contaminants (TACs) for this type of project can be attributed to diesel exhaust from the trucks (including from truck refrigeration units, or TRUs), as well as on-road construction equipment during Project construction. As shown in Table 3.3-13 in Section 3.3, the proposed Project, in and of itself, would not result in a significant increased exposure of receptors to localized concentrations of TACs. Risk of residential cancer risk, workplace cancer risk, and chronic and acute non-cancer risks are below the applicable SJVAPCD thresholds.

Lastly, as discussed under Impact 3.3-4, the proposed Project does not propose sensitive receptors that would be exposed to odors in the vicinity; nor does it propose uses that would create new odors that would expose substantial numbers of people.

Under the No Project (No Build) Alternative, the Project site would not be developed, and there would be no net change in emissions and no potential for a conflict with any adopted plans or policies related to air quality. As such, this impact would be reduced when compared to the proposed Project.

Biological Resources

As described in Section 3.4 Biological Resources, construction on the Project site has the potential to result in impacts to special-status species in the region. The California Natural Diversity Database (CNDDB) currently contains records for Swainson's hawk, burrowing owl, and tricolored blackbird in the vicinity of the Project site. The Project site provides potential habitat for several species. Mitigation Measure 3.4-1 requires participation with the San Joaquin Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), which includes fees that will be used to purchase conservation lands for a variety of special status species. The SJMSCP was created and adopted to address both the Project and cumulative impacts to biological resources, including special status species. The proposed Project will participate in the SJMSCP, including payment of fees and implementation of all Incidental Take Minimization Measures required by the San Joaquin Council of Governments (SJCOG) through the authorization of SJMSCP coverage. Through the implementation of various mitigation measures found in Section 3.4, implementation of the proposed Project will have a less than significant impact on biological resources.

Under the No Project (No Build) Alternative, the proposed Project would not be constructed, no habitat would be removed, and no ground disturbing activities would occur. As such, this impact would be reduced when compared to the proposed Project.

Cultural and Tribal Resources

As discussed in Section 3.5, Cultural and Tribal Resources, the Project site had been surveyed by Peter Jensen in 2000 (SJ-4029). Jensen found no evidence of prehistoric period resources in the Project site; however, a section of the Tidewater and Southern Railroad was recorded (Resource P-39-000015). This railroad line subdivides the Project site. Because the original components of the rail system have been changed and/or altered, this segment of the rail line is not considered eligible for the NRHP. As such, the Project site does not contain a “historical resource” as defined in CEQA Guidelines Section 15064.5.

Any previously unknown cultural resources which may be discovered during development of the proposed Project would be required to be preserved, either through preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. With implementation of the mitigation measures provided in Section 3.5, the proposed Project is not anticipated to considerably contribute to a significant reduction in cultural resources in the region.

The No Project (No Build) Alternative would result in no ground disturbing activities related to the proposed Project and would not have the potential to disturb or destroy cultural, historic, and archaeological resources, as well as paleontological resources. While the proposed Project is not anticipated to result in significant impacts to cultural resources with mitigation, the No Project (No Build) Alternative would result in less potential for impacts to cultural resources as the entire Project site would continue to be used for agriculture production. As such, this impact would be reduced when compared to the proposed Project.

Geology and Soils

As described in Section 3.6, implementation of the proposed Project would result in the construction of new structures on the Project site. The new structures would be subject to seismic, geologic, and soils hazards for the life of the Project. Mostly notably, the proposed Project would be subject to ground shaking, soil erosion, and expansive soils. Mitigation measures identified in Section 3.6 would reduce the potential impacts to a less than significant level.

The No Project (No Build) Alternative would result in the Project site remaining in its existing condition. There are no structures on the Project site that are subject to seismic or geologic risks. The No Project (No Build) Alternative would not involve new construction that could be subject to seismic, geologic or soils hazards; thus, this alternative would have no potential for impact. As such, this impact would be reduced when compared to the proposed Project.

Greenhouse Gases, Climate Change and Energy

Short-term construction greenhouse gas (GHG) emissions are a one-time release of GHGs and are not expected to significantly contribute to global climate change over the lifetime of the proposed Project. As presented in Table 3.7-3 in Section 3.7, short-term construction emissions of GHGs are

estimated at a maximum of approximately 6,231 MT CO₂e per year, based on anticipated peak construction GHG emissions in around 2029. As shown in Table 3.7-4, the annual mitigated operational emissions of GHGs associated with the proposed Project would be approximately 144,929 MT CO₂e. Under the No Project (No Build) Alternative, the Project site would not be developed, and there would be no net change in emissions and no potential for a conflict with any adopted plans or policies related to GHG reductions. As such, this impact would be reduced when compared to the proposed Project.

Hazards and Hazardous Materials

For the most part, potential impacts associated with new and future development would be confined to commercial and industrial areas and would not involve the use of hazardous substances in large quantities or that would be particularly hazardous. Incidents, if any, would typically be site specific and would involve accidental spills or inadvertent releases. Associated health and safety risks would generally be limited to those individuals using the materials or to persons in the immediate vicinity of the materials and would not combine with similar effects elsewhere (i.e., construction workers), as hazard-related impacts tend to be site-specific and Project-specific.

The Project site is not associated with any existing hazardous materials spills; however, after agricultural operations cease, and development is anticipated to occur, the applicant or future project proponent would be required to hire a qualified consultant to perform site-specific soil sampling to determine if chemicals of potential concern associated with the historical agricultural uses at the Project site are present in shallow soil at concentrations that would pose a threat to human health. If results of the soil sampling identify concentrations of hazardous materials exceeding appropriate environmental screening levels (ESLs) for the future site-specific use, on-site remediation would be required in coordination with the San Joaquin County Department of Environmental Health.

Under the No Project (No Build) Alternative, no new land uses would be introduced to the Project site, and the potential for hazardous material release on the Project site would be eliminated. As such, this impact would be reduced when compared to the proposed Project.

Hydrology and Water Quality

As described in Section 3.9, implementation of the proposed Project has the potential to result in the violation of water quality standards and the discharge of pollutants into surface waters during both construction and long-term operations. Construction operations could result in temporary increases in runoff, erosion, sedimentation, soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas. The long-term operation of the proposed Project could result in long-term impacts to surface water quality from urban stormwater runoff and could enter groundwater or surface water systems. Mitigation measures provided in Section 3.9 would reduce potential water quality impacts to a less than significant level. The proposed Project would not significantly impact groundwater recharge or place persons or structures in a flood hazard zone.

Under the No Project (No Build) Alternative, potential water quality impacts from construction and operation of the proposed Project would be eliminated. While groundwater recharge is not considered a significant impact under the proposed Project, under this alternative, the land will be kept in its present state with the majority of the Project site being used for agricultural purposes. The No Project (No Build) Alternative will have a greater chance of groundwater recharge because it does not introduce large areas of impervious surfaces as would the proposed Project. As such, potential impacts related to hydrology and water quality would be reduced under the No Project (No Build) Alternative when compared to the proposed Project.

Land Use and Population

The Project would not directly introduce new residents to the City as no housing is proposed as part of the Project. It is noted, however, that some portion of the proposed Project employees could become Stockton residents. The Project would require a zoning and general plan amendment for land use changes. However, impacts to land use are considered less than significant.

The No Project (No Build) Alternative would result in no changes to land use and would have no development. Because the No Project (No Build) Alternative would not add any additional employment population, impacts related to population would be reduced when compared to the proposed Project. It is noted, however, that the employment growth resulting from the proposed Project would be within the growth projections assumed for the Project site by the General Plan and associated EIR. The Envision Stockton 2040 General Plan Land Use Map designates the Project site as Industrial, Commercial, and Open Space/Agriculture. The Project site is zoned IL (Industrial, Light), CG (Commercial, General), and OS (Open Space). The No Project (No Build) Alternative would be inconsistent with the General Plan and zoning designations for the site because the agricultural uses which would continue on the site under this alternative are not allowed within the Industrial or Commercial land use, or within the IL or CG zoning districts. Overall, the impacts related to land use and population under this alternative would be greater compared to the proposed Project.

Noise

The primary noise sources associated with the proposed Project are on-site parking lot circulation and the loading docks, as well as from vehicular traffic. Mitigation measures provided in Section 3.12 would reduce all potential impacts to a less than significant level. Under the No Project (No Build) Alternative, the Project site would not be developed and there would be no potential for new noise sources. As such, this impact would be reduced when compared to the proposed Project.

Public Services

Development of the proposed Project will require payment of all applicable fees and assessments required to fund its fair share of public services. This funding would assist in the development of facilities in order to meet the City's standards. The proposed Project would have a less than significant impact to fire, police, schools, and recreational facilities.

Under the No Project (No Build) Alternative, the Project site would remain undeveloped and there would be no increased demand for public services or recreation. The No Project (No Build)

Alternative would have a reduced impact when compared to the proposed Project because demand on public services would be reduced when compared to the proposed Project.

Transportation and Circulation

The No Project (No Build) Alternative would not introduce additional vehicle trips onto the area roadways. It was determined that the proposed Project would cause an increase in vehicle miles traveled (VMT) for home-based work trips per employee for Baseline and Cumulative With Project Conditions. Mitigation was identified to alleviate long term impacts; however, impacts related to VMT were deemed to be significant and unavoidable. All other transportation related impacts were determined to be less than significant. Under the No Project (No Build) Alternative, these potential impacts would be avoided, and the No Project (No Build) Alternative would have a reduced traffic impact when compared to the proposed Project.

Utilities

Implementation of the proposed Project would result in increased flows to the public wastewater system. The wastewater system is capable of handling the increased flows with their existing permit and infrastructure.

Implementation of the proposed Project would result in increased demand for potable water. The City has adequate water supply to handle the increased demand with their existing supply and infrastructure.

Implementation of the proposed Project would result in increased storm drainage from new impervious surfaces. The proposed Project includes a storm drainage collection system to handle the increased storm drainage.

Implementation of the proposed Project would result in increased generation of solid waste. However, the landfill has adequate capacity to dispose the solid waste.

Under the No Project (No Build) Alternative the Project site would not increase the demand for any utilities, including wastewater services, potable water supplies, or solid waste disposal. There would be no need to construct stormwater drainage infrastructure. Overall, the demand for utilities would be reduced under the No Project (No Build) Alternative when compared to the proposed Project.

REDUCED PROJECT ALTERNATIVE

Aesthetics and Visual Resources

As described in Section 3.1, the visual character of the Project site would be significantly altered as a result of Project implementation. Consistency with the General Plan, Stockton Zoning Ordinance, and development standards would ensure that impacts are reduced to the greatest extent possible. Nevertheless, impacts related to degradation of the visual character of the site would be significant and unavoidable.

Implementation of the lighting plan required by Mitigation Measure 3.1-1 would ensure that lighting features do not result in light spillage onto adjacent properties and do not significantly impact views

of the night sky. Adherence to the mitigation measure would ensure that excessively reflective building materials are not used, and that the proposed Project would not result in significant impacts related to daytime glare. As such, impacts related to nighttime lighting and daytime glare would be less than significant with mitigation.

These impacts would be similar with the Reduced Project Alternative as this alternative is located on the same site and would have similar uses as the proposed Project. However, due to the reduction in developed area and square footage compared to the Project, the changes to the visual character of the site would be less pronounced. The impacts of light and glare would still occur and could be mitigated to a less than significant level. However, due to the decreased developed area and square footage, the Reduced Project Alternative would have a slightly reduced impact on visual resources when compared to the proposed Project.

Agricultural Resources

Currently, the majority of the Project site is used for agricultural purposes. Development of the proposed Project would result in the permanent conversion of 158.6 acres of Prime Farmland, 259.3 acres of Farmland of Statewide Importance, and 4.3 acres of Unique Farmland. While this alternative would decrease the amount of developed area by 25 percent compared to the Project, 316.67 acres would still be converted from agricultural use. While this alternative would reduce the impacts to agricultural lands when compared to the proposed Project, the loss of the agricultural land, including prime farmland, would be a significant and unavoidable impact under both the Reduced Project Alternative and the proposed Project. Overall, the Reduced Project Alternative would have slightly reduced impacts on agricultural resources when compared to the proposed Project.

Air Quality

Under buildout conditions in the San Joaquin County, the SJVAB would continue to experience increases in criteria pollutants and efforts to improve air quality throughout the basin would be hindered. As described in Section 3.3, San Joaquin County has a state designation of Nonattainment for ozone, PM₁₀ and PM_{2.5}. Table 3.3-2 in Section 3.3 presents the State and Federal attainment status for San Joaquin County.

As discussed under Impact 3.3-1 in Section 3.3, operational emissions would exceed the San Joaquin Valley Air Pollution Control District (SJVAPCD) thresholds of significance for CO, NO_x, ROG, PM₁₀, and PM₁₀. Therefore, the proposed Project is required to implement all feasible mitigation to reduce criteria pollutant emissions to below the applicable SJVAPCD thresholds of significance. The proposed Project would implement Mitigation Measure 3.3-1 through Mitigation Measure 3.3-18 included in Section 3.3. However, even with implementation of all feasible mitigation, it may not be feasible for all individual phases of development within the Project site (and thereby the Project as a whole) to reduce operational emissions at full Project buildout below the applicable thresholds.

As discussed in Impact 3.3-2 in Section 3.3, none of the Project annual construction emissions would exceed the SJVAPCD thresholds of significance. Nevertheless, regardless of emission quantities, the SJVAPCD requires construction related mitigation in accordance with their rules and regulations. Implementation of the Mitigation Measure 3.3-19 through 3.3-22 included in Section 3.3 would

5.0 ALTERNATIVES TO THE PROPOSED PROJECT

further reduce proposed Project construction related emissions to the extent possible. Additionally, as discussed in Impact 3.3-3 of Section 3.3, a health impact analysis has been prepared for the proposed Project to analyze the potential health risks associated with increased trucks to the Project site and surrounding roadways associated with the development and operation of the proposed industrial and commercial uses. The source of toxic air contaminants (TACs) for this type of project can be attributed to diesel exhaust from the trucks (including from truck refrigeration units, or TRUs), as well as on-road construction equipment during Project construction. As shown in Table 3.3-13 in Section 3.3, the proposed Project, in and of itself, would not result in a significant increased exposure of receptors to localized concentrations of TACs. Risk of residential cancer risk, workplace cancer risk, and chronic and acute non-cancer risks are below the applicable SJVAPCD thresholds.

Lastly, as discussed under Impact 3.3-4, the proposed Project does not propose sensitive receptors that would be exposed to odors in the vicinity; nor does it propose uses that would create new odors that would expose substantial numbers of people.

Implementation of the proposed Project would cause an increase in traffic, which is the dominant source of air emissions associated with the proposed Project. Under the Reduced Project Alternative, the Project site would be developed with the same types of commercial, industrial, open space, and public facility uses as described in the Project Description, but the commercial and industrial square footage would decrease by 25 percent, the amount of open space would decrease by 25 percent, and the amount of developed land would decrease by 25 percent. Therefore, the amount of traffic generated from the Reduced Project Alternative would be reduced by 25 percent under this alternative. Mobile source air emissions are directly correlated to traffic volume; therefore, it is estimated that the reduced trip volume would result in a reduced amount of the mobile source emissions. Additionally, the area source emissions would be reduced when compared to the Project.

Uses in the Reduced Project Alternative would be required to adhere to the same mitigation measures as the proposed Project. The Reduced Project Alternative would result in reduced impacts related to air quality when compared to the proposed Project; however, it is likely that the significant and unavoidable air quality impact would remain under this alternative.

Biological Resources

As described in Section 3.4 Biological Resources, construction on the Project site has the potential to result in impacts to special-status species in the region. The proposed Project would provide open space areas in the western portion of the site in order to avoid French Camp Slough. The CNDDB currently contains records for Swainson's hawk, burrowing owl, and tricolored blackbird in the vicinity of the Project site. The Project site provides potential habitat for several species. Mitigation Measure 3.4-1 requires participation with the SJMSCP, which includes fees that will be used to purchase conservation lands for a variety of special status species. The SJMSCP was created and adopted to address both the Project and cumulative impacts to biological resources, including special status species. The proposed Project will participate in the SJMSCP, including payment of fees and implementation of all Incidental Take Minimization Measures required by the SJCOG through the authorization of SJMSCP coverage. Through the implementation of the mitigation

measures found in Section 3.4, implementation of the proposed Project will have a less than significant impact on biological resources.

The Reduced Project Alternative would result in development of 316.67 acres of the Project site. Under this alternative, the 105.55 acres which would not be included in the development area would be located in the western and southern portions of the site in order to preserve a larger area around French Camp Slough. The preservation of 105.55 acres of the 422.22-acre Project site would provide greater biological benefits even though the remainder of the Project site would be developed. As such, the Reduced Project Alternative would result in slightly less impacts to biological resources when compared to the proposed Project.

Cultural and Tribal Resources

As discussed in Section 3.5, Cultural and Tribal Resources, the Project site had been surveyed by Peter Jensen in 2000 (SJ-4029). Jensen found no evidence of prehistoric period resources in the Project site; however, a section of the Tidewater and Southern Railroad was recorded (Resource P-39-000015). This railroad line subdivides the Project site. Because the original components of the rail system have been changed and/or altered, this segment of the rail line is not considered eligible for the NRHP. As such, the Project site does not contain a “historical resource” as defined in CEQA Guidelines Section 15064.5.

Any previously unknown cultural resources which may be discovered during development of the proposed Project would be required to be preserved, either through preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. With implementation of the mitigation measures provided in Section 3.5, the proposed Project is not anticipated to considerably contribute to a significant reduction in cultural resources in the region.

The Reduced Project Alternative would result in development of 75 percent of the Project site. The 105.55 acres which would not be included in the development area for this alternative would be located in the western and southern portions of the site in order to preserve a larger area around French Camp Slough. This would result in a reduced potential to disturb or destroy cultural, historic, and archaeological resources, as well as paleontological resources. The same mitigation measures required for the proposed Project would be required for this alternative. While the proposed Project is not anticipated to result in significant impacts to cultural resources with mitigation, the Reduced Project Alternative would result in a slightly reduced potential for impacts to cultural resources.

Geology and Soils

As described in Section 3.6, implementation of the proposed Project would result in the construction of new structures on the Project site. The new structures would be subject to seismic, geologic, and soils hazards for the life of the Project. Mostly notably, the proposed Project would be subject to ground shaking, soil erosion, and expansive soils. Mitigation measures identified in Section 3.6 would reduce the potential impacts to a less than significant level.

Under the Reduced Project Alternative, the amount of developed area would be reduced by 25 percent compared to the Project, and the number of structures that would be subject to hazardous

geological conditions would be reduced by 25 percent. While the proposed Project is not anticipated to result in significant impacts from geology and soils with mitigation, the Reduced Project Alternative would result in a slightly reduced potential for impacts when compared to the proposed Project.

Greenhouse Gases, Climate Change and Energy

Short-term construction GHG emissions are a one-time release of GHGs and are not expected to significantly contribute to global climate change over the lifetime of the proposed Project. As presented in Table 3.7-3 in Section 3.7, short-term construction emissions of GHGs are estimated at a maximum of approximately 6,231 MT CO₂e per year, based on anticipated peak construction GHG emissions in around 2029. As shown in Table 3.7-4, the annual mitigated operational emissions of GHGs associated with the proposed Project would be approximately 144,929 MT CO₂e.

Under the Reduced Project Alternative, the Project site would be developed with the same types of uses and structures as the proposed Project, but the amount of building area and developed area would be decreased by 25 percent. All uses in the Reduced Project Alternative would be required to adhere to the same mitigation measure as the proposed Project. The reduced amount of development would result in a corresponding reduced level of GHG emissions when compared to the proposed Project. As such, the GHG emissions impact would be reduced with this Alternative when compared to the proposed Project; however, it is likely that the significant and unavoidable GHG impact would remain under this alternative.

Hazards and Hazardous Materials

For the most part, potential impacts associated with new and future development would be confined to commercial and industrial areas and would not involve the use of hazardous substances in large quantities or that would be particularly hazardous. Incidents, if any, would typically be site specific and would involve accidental spills or inadvertent releases. Associated health and safety risks would generally be limited to those individuals using the materials or to persons in the immediate vicinity of the materials and would not combine with similar effects elsewhere (i.e., construction workers), as hazard-related impacts tend to be site-specific and Project-specific.

The Project site is not associated with any existing hazardous materials spills; however, after agricultural operations cease, and development is anticipated to occur, the applicant or future project proponent would be required to hire a qualified consultant to perform site-specific soil sampling to determine if chemicals of potential concern associated with the historical agricultural uses at the Project site are present in shallow soil at concentrations that would pose a threat to human health. If results of the soil sampling identify concentrations of hazardous materials exceeding appropriate ESLs for the future site-specific use, on-site remediation would be required in coordination with the San Joaquin County Department of Environmental Health.

Under the Reduced Project Alternative, the type of urban uses would not change when compared to the proposed Project, but the amount of development would be reduced by 25 percent. This alternative would still use the hazardous materials identified under the proposed Project. As such,

this alternative would have equal impacts from hazards and hazardous materials impacts when compared to the proposed Project.

Hydrology and Water Quality

As described in Section 3.9, implementation of the proposed Project has the potential to result in the violation of water quality standards and the discharge of pollutants into surface waters during both construction and long-term operations. Construction operations could result in temporary increases in runoff, erosion, sedimentation, soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas. The long-term operation of the proposed Project could result in long-term impacts to surface water quality from urban stormwater runoff and could enter groundwater or surface water systems. Mitigation measures provided in Section 3.9 would reduce potential water quality impacts to a less than significant level. The proposed Project would not significantly impact groundwater recharge or place persons or structures in a flood hazard zone.

Under the Reduced Project Alternative, potential construction-related and long-term operational impacts to water quality or waste discharge related to stormwater runoff would be reduced equivalent to the amount of land area that remains undeveloped under this alternative. The increased amount of undeveloped land under this alternative will remain pervious to precipitation, which will facilitate groundwater recharge and the natural biofiltration of stormwater. This alternative will still include stormwater detention/basins, and provide natural BMPs to reduce pollutants in stormwater runoff. As such, potential impacts related to hydrology and water quality would be slightly reduced under the Reduced Project Alternative when compared to the proposed Project.

Land Use and Population

The Project would not directly introduce new residents to the City as no housing is proposed as part of the Project. It is noted, however, that some portion of the proposed Project employees could become Stockton residents. The Project would require a zoning and general plan amendment for land use changes. However, impacts to land use are considered less than significant.

The Reduced Project Alternative is not expected to induce substantial population growth in the area. Similar to the proposed Project, development of the Reduced Project Alternative would add employment-generating uses to the Project site, but at a reduced level. Therefore, impacts relating to population would be equal under this alternative. The Envision Stockton 2040 General Plan Land Use Map designates the Project site as Industrial, Commercial, and Open Space/Agriculture. The Project site is zoned IL (Industrial, Light), CG (Commercial, General), and OS (Open Space). The Reduced Project Alternative would be inconsistent with the General Plan and zoning designations for the site because the agricultural uses which would continue on a portion of the site under this alternative are not allowed within the Industrial or Commercial land use, or within the IL or CG zoning districts. As such, similar to the Project, a General Plan amendment and rezone would be required. Overall, the impacts related to land use and population under this alternative would be similar to the proposed Project.

Noise

The primary noise sources associated with the proposed Project are on-site parking lot circulation and the loading docks, as well as from vehicular traffic. Mitigation measures provided in Section 3.12 would reduce all potential impacts to a less than significant level. The Reduced Project Alternative would result in a reduced amount of industrial and commercial uses compared to the Project; therefore, the noise impacts associated with vehicular and operational activities of the proposed Project would be reduced under this alternative. All noise issues would be mitigated, as appropriate, through noise attenuation and best management practices under both the proposed Project and the Reduced Project Alternative. Therefore, under this alternative, noise impacts are slightly reduced when compared to the proposed Project.

Public Services

Development of the proposed Project will require payment all applicable fees and assessments required to fund its fair share of public services. This funding would assist in the development of facilities in order to meet the City's standards. The proposed Project would have a less than significant impact to fire, police, schools, and recreational facilities.

Under the Reduced Project Alternative, the proposed Project would be developed with the same types of commercial, industrial, open space, and public facility uses as described in the Project Description, but the commercial and industrial square footage would decrease by 25 percent, the amount of open space would decrease by 25 percent, and the amount of developed land would decrease by 25 percent. Both the proposed Project and the Reduced Project Alternative would result in less-than-significant impacts to public services. As such, impacts to public services under this alternative would be comparable to the proposed Project.

Transportation and Circulation

It was determined that the proposed Project would cause an increase in VMT for home-based work trips per employee for Baseline and Cumulative With Project Conditions. Mitigation was identified to alleviate long term impacts; however, impacts related to VMT were deemed to be significant and unavoidable. All other transportation related impacts were determined to be less than significant. Under the Reduced Project Alternative, the Project site would be developed with the same components as described in the Project Description, but the amount of square footage and developed area would decrease by 25 percent. The reduced amount of commercial and industrial uses would result in a reduced amount of traffic generated by the Reduced Project Alternative.

Uses in the Reduced Project Alternative would be required to adhere to the same mitigation measures as the proposed Project. It is likely that the significant and unavoidable VMT impact would remain under this alternative. Overall, the Reduced Project Alternative would result in reduced traffic related impacts when compared to the proposed Project.

Utilities

Implementation of the proposed Project would result in increased flows to the public wastewater system. The wastewater system is capable of handling the increased flows with their existing permit and infrastructure.

Implementation of the proposed Project would result in increased demand for potable water. The City has adequate water supply to handle the increased demand with their existing supply and infrastructure.

Implementation of the proposed Project would result in increased storm drainage from new impervious surfaces. The proposed Project includes a storm drainage collection system to handle the increased storm drainage.

Implementation of the proposed Project would result in increased generation of solid waste. However, the landfill has adequate capacity to dispose the solid waste.

Under the Reduced Project Alternative, the Project site would be developed with the same components as described in the Project Description, but the amount of square footage and developed area would decrease by 25 percent. This would result in a reduced amount of wastewater, water demand, and solid waste generated from the Project site. The total Project area would decrease from 422.22 acres to 316.67 acres. The remaining 105.55 acres outside of the Reduced Project Alternative area would remain in their current condition (agricultural and open space uses). This alternative would increase the amount of pervious soils, thereby increasing opportunities for stormwater retention at the Project site. However, uses in Reduced Project Alternative would be required to adhere to the same mitigation measures as the proposed Project. The Reduced Project Alternative would result in reduced demand on utility systems when compared to the proposed Project.

Overall, this alternative would have reduced wastewater treatment demand, reduced water demand, reduced solid waste generated, and reduced storm water runoff when compared to the proposed Project. As such, this alternative would have reduced utilities impacts when compared to the proposed Project.

AGRICULTURE PROTECTION ALTERNATIVE

Aesthetics and Visual Resources

As described in Section 3.1, the visual character of the Project site would be significantly altered as a result of Project implementation. Consistency with the General Plan, Stockton Zoning Ordinance, and development standards would ensure that impacts are reduced to the greatest extent possible. Nevertheless, impacts related to degradation of the visual character of the site would be significant and unavoidable.

Implementation of the lighting plan required by Mitigation Measure 3.1-1 would ensure that lighting features do not result in light spillage onto adjacent properties and do not significantly impact views of the night sky. Adherence to the mitigation measure would ensure that excessively reflective

building materials are not used, and that the proposed Project would not result in significant impacts related to daytime glare. As such, impacts related to nighttime lighting and daytime glare would be less than significant with mitigation.

Under the Agriculture Protection Alternative, the proposed Project would be developed with the same components as described in the Project Description, but the size of the industrial and commercial areas would be reduced resulting in an increase of undeveloped land beyond the Reduced Project Alternative. The commercial and industrial uses would be two-story in order to reduce the developed area footprint while providing the same square footage as the Project. Although the developed area would be reduced by 50 percent compared to the Project, the impacts to the existing visual quality would be similar to the proposed Project as 211.11 acres of the site would be developed with the same uses as under the proposed Project, just at a higher intensity. As such, there would still be an impact to the visual character under this alternative. The impact associated with increased light and glare in the developed area would be mitigated under both the proposed Project and the Agriculture Protection Alternative. Under this alternative, the changes to the existing visual quality would be similar to the proposed Project in the areas that are developed, but would be significantly less in the areas that are not developed. Overall, this alternative would have a reduced impact to aesthetics when compared to the proposed Project.

Agricultural Resources

Currently, the majority of the Project site is used for agricultural purposes. Development of the proposed Project would result in the permanent conversion of 158.6 acres of Prime Farmland, 259.3 acres of Farmland of Statewide Importance, and 4.3 acres of Unique Farmland. While this alternative would decrease the amount of developed area by 50 percent compared to the Project, 211.11 acres would still be converted from agricultural use. While this alternative would reduce the impacts to agricultural lands when compared to the proposed Project, the loss of the agricultural land, including prime farmland, would be a significant and unavoidable impact under both this Alternative and the proposed Project. Overall, the Agriculture Protection Alternative would have reduced impacts on agricultural resources when compared to the proposed Project.

Air Quality

Under buildout conditions in the San Joaquin County, the SJVAB would continue to experience increases in criteria pollutants and efforts to improve air quality throughout the basin would be hindered. As described in Section 3.3, San Joaquin County has a state designation of Nonattainment for ozone, PM₁₀ and PM_{2.5}. Table 3.3-2 in Section 3.3 presents the State and Federal attainment status for San Joaquin County.

As discussed under Impact 3.3-1 in Section 3.3, operational emissions would exceed the San Joaquin Valley Air Pollution Control District (SJVAPCD) thresholds of significance for CO, NO_x, ROG, PM₁₀, and PM₁₀. Therefore, the proposed Project is required to implement all feasible mitigation to reduce criteria pollutant emissions to below the applicable SJVAPCD thresholds of significance. The proposed Project would implement Mitigation Measure 3.3-1 through Mitigation Measure 3.3-18 included in Section 3.3. However, even with implementation of all feasible mitigation, it may not be

feasible for all individual phases of development within the Project site (and thereby the Project as a whole) to reduce operational emissions at full Project buildout below the applicable thresholds.

As discussed in Impact 3.3-2 in Section 3.3, none of the Project annual construction emissions would exceed the SJVAPCD thresholds of significance. Nevertheless, regardless of emission quantities, the SJVAPCD requires construction related mitigation in accordance with their rules and regulations. Implementation of the Mitigation Measure 3.3-19 through 3.3-22 included in Section 3.3 would further reduce proposed Project construction related emissions to the extent possible. Additionally, as discussed in Impact 3.3-3 of Section 3.3, a health impact analysis has been prepared for the proposed Project to analyze the potential health risks associated with increased trucks to the Project site and surrounding roadways associated with the development and operation of the proposed industrial and commercial uses. The source of toxic air contaminants (TACs) for this type of project can be attributed to diesel exhaust from the trucks (including from truck refrigeration units, or TRUs), as well as on-road construction equipment during Project construction. As shown in Table 3.3-13 in Section 3.3, the proposed Project, in and of itself, would not result in a significant increased exposure of receptors to localized concentrations of TACs. Risk of residential cancer risk, workplace cancer risk, and chronic and acute non-cancer risks are below the applicable SJVAPCD thresholds.

Lastly, as discussed under Impact 3.3-4, the proposed Project does not propose sensitive receptors that would be exposed to odors in the vicinity; nor does it propose uses that would create new odors that would expose substantial numbers of people.

Implementation of the proposed Project would cause an increase in traffic, which is the dominant source of air emissions associated with the proposed Project. Under the Agriculture Protection Alternative, the same types and amounts of commercial, industrial, open space, and public facility uses as described in the Project Description would be developed, but the amount of developed land would decrease by 50 percent. Because the type and amount of trip-generating uses would be equal to the Project, the amount of traffic generated from the Agriculture Protection Alternative would be equal to the proposed Project. Mobile source air emissions are directly correlated to traffic volume; therefore, it is estimated that the comparable trip volume would result in an equal amount of the mobile source emissions. Additionally, the area source emissions would be equal when compared to the Project.

Uses in the Agriculture Protection Alternative would be required to adhere to the same mitigation measures as the proposed Project. The Agriculture Protection Alternative would result in similar impacts related to air quality when compared to the proposed Project and the significant and unavoidable air quality impact would remain under this alternative.

Biological Resources

As described in Section 3.4 Biological Resources, construction on the Project site has the potential to result in impacts to special-status species in the region. The proposed Project would provide open space areas in the western portion of the site in order to avoid French Camp Slough. The CNDDB currently contains records for Swainson's hawk, burrowing owl, and tricolored blackbird in the vicinity of the Project site. The Project site provides potential habitat for several species. Mitigation

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Measure 3.4-1 requires participation with the SJMSCP, which includes fees that will be used to purchase conservation lands for a variety of special status species. The SJMSCP was created and adopted to address both the Project and cumulative impacts to biological resources, including special status species. The proposed Project will participate in the SJMSCP, including payment of fees and implementation of all Incidental Take Minimization Measures required by the SJCOG through the authorization of SJMSCP coverage. Through the implementation of various mitigation measures found in Section 3.4, implementation of the proposed Project will have a less than significant impact on biological resources.

The Agriculture Protection Alternative would result in development of 211.11 acres of the Project site. Under this alternative, the 211.11 acres which would not be included in the development area for this alternative would be located in the western portion of the site in order to preserve a larger area around French Camp Slough. The preservation of 211.11 acres of the 422.22-acre Project site would provide biological benefits even though the remainder of the site would be developed. As such, the Agriculture Protection Alternative would result in less impact to biological resources when compared to the proposed Project.

Cultural and Tribal Resources

As discussed in Section 3.5, Cultural and Tribal Resources, the Project site had been surveyed by Peter Jensen in 2000 (SJ-4029). Jensen found no evidence of prehistoric period resources in the Project site; however, a section of the Tidewater and Southern Railroad was recorded (Resource P-39-000015). This railroad line subdivides the Project site. Because the original components of the rail system have been changed and/or altered, this segment of the rail line is not considered eligible for the NRHP. As such, the Project site does not contain a “historical resource” as defined in CEQA Guidelines Section 15064.5.

Any previously unknown cultural resources which may be discovered during development of the proposed Project would be required to be preserved, either through preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. With implementation of the mitigation measures provided in Section 3.5, the proposed Project is not anticipated to considerably contribute to a significant reduction in cultural resources in the region.

The Agriculture Protection Alternative would result in development of 50 percent of the Project site. The 211.11 acres which would not be included in the development area for this alternative would be located in the western half of the site in order to preserve a larger area around French Camp Slough. This would result in a reduced potential to disturb or destroy cultural, historic, and archaeological resources, as well as paleontological resources. The same mitigation measures required for the proposed Project would be required for this alternative. While the proposed Project is not anticipated to result in significant impacts to cultural resources with mitigation, the Agriculture Protection Alternative would result in a reduced potential for impacts to cultural resources.

Geology and Soils

As described in Section 3.6, implementation of the proposed Project would result in the construction of new structures on the Project site. The new structures would be subject to seismic, geologic, and

soils hazards for the life of the Project. Mostly notably, the proposed Project would be subject to ground shaking, soil erosion, and expansive soils. Mitigation measures identified in Section 3.6 would reduce the potential impacts to a less than significant level.

Under the Agriculture Protection Alternative, the amount of developed area would be reduced by 50 percent compared to the Project, but the structural square footage that would be subject to hazardous geological conditions would be equal to the Project. Both the proposed Project and the Agriculture Protection Alternative would not result in significant impacts from geology and soils with mitigation. As such, the Agriculture Protection Alternative would result in similar geology and soils impacts when compared to the proposed Project.

Greenhouse Gases, Climate Change and Energy

Short-term construction GHG emissions are a one-time release of GHGs and are not expected to significantly contribute to global climate change over the lifetime of the proposed Project. As presented in Table 3.7-3 in Section 3.7, short-term construction emissions of GHGs are estimated at a maximum of approximately 6,231 MT CO₂e per year, based on anticipated peak construction GHG emissions in around 2029. As shown in Table 3.7-4, the annual mitigated operational emissions of GHGs associated with the proposed Project would be approximately 144,929 MT CO₂e.

Under the Agriculture Protection Alternative, the Project site would be developed with the same types and amounts of commercial and industrial development as the proposed Project, but the amount of developed area would be decreased by 50 percent. All uses in the Agriculture Protection Alternative would be required to adhere to the same mitigation measure as the proposed Project. The equal amount of development would result in a corresponding equal level of GHG emissions when compared to the proposed Project. As such, the GHG emissions impact would be similar to the proposed Project and the significant and unavoidable GHG impact would remain under this alternative.

Hazards and Hazardous Materials

For the most part, potential impacts associated with new and future development would be confined to commercial and industrial areas and would not involve the use of hazardous substances in large quantities or that would be particularly hazardous. Incidents, if any, would typically be site specific and would involve accidental spills or inadvertent releases. Associated health and safety risks would generally be limited to those individuals using the materials or to persons in the immediate vicinity of the materials and would not combine with similar effects elsewhere (i.e., construction workers), as hazard-related impacts tend to be site-specific and Project-specific.

The Project site is not associated with any existing hazardous materials spills; however, after agricultural operations cease, and development is anticipated to occur, the applicant or future project proponent would be required to hire a qualified consultant to perform site-specific soil sampling to determine if chemicals of potential concern associated with the historical agricultural uses at the Project site are present in shallow soil at concentrations that would pose a threat to human health. If results of the soil sampling identify concentrations of hazardous materials

exceeding appropriate ESLs for the future site-specific use, on-site remediation would be required in coordination with the San Joaquin County Department of Environmental Health.

Under the Agriculture Protection Alternative, the type of urban uses would not change when compared to the proposed Project, but the amount of developed area would be reduced by 50 percent. This alternative would use the same types and quantities of hazardous materials identified under the proposed Project. As such, this alternative would have equal impacts from hazards and hazardous materials impacts when compared to the proposed Project.

Hydrology and Water Quality

As described in Section 3.9, implementation of the proposed Project has the potential to result in the violation of water quality standards and the discharge of pollutants into surface waters during both construction and long-term operations. Construction operations could result in temporary increases in runoff, erosion, sedimentation, soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas. The long-term operation of the proposed Project could result in long-term impacts to surface water quality from urban stormwater runoff and could enter groundwater or surface water systems. Mitigation measures provided in Section 3.9 would reduce potential water quality impacts to a less than significant level. The proposed Project would not significantly impact groundwater recharge or place persons or structures in a flood hazard zone.

Under the Agriculture Protection Alternative, potential construction-related and long-term operational impacts to water quality or waste discharge related to stormwater runoff would be reduced equivalent to the amount of land area that remains undeveloped under this alternative. The increased amount of undeveloped land under this alternative will remain pervious to precipitation, which will facilitate groundwater recharge and the natural biofiltration of stormwater. This alternative will still include stormwater detention/basins, and provide natural BMPs to reduce pollutants in stormwater runoff. As such, potential impacts related to hydrology and water quality would be reduced under the Agriculture Protection Alternative when compared to the proposed Project.

Land Use and Population

The Project would not directly introduce new residents to the City as no housing is proposed as part of the Project. It is noted, however, that some portion of the proposed Project employees could become Stockton residents. The Project would require a zoning and general plan amendment for land use changes. However, impacts to land use are considered less than significant.

The Agriculture Protection Alternative is not expected to induce substantial population growth in the area. Similar to the proposed Project, development of the Agriculture Protection Alternative would add employment-generating uses to the Project site. Therefore, impacts relating to population would be equal under this alternative. The Envision Stockton 2040 General Plan Land Use Map designates the Project site as Industrial, Commercial, and Open Space/Agriculture. The Project site is zoned IL (Industrial, Light), CG (Commercial, General), and OS (Open Space). The Agriculture Protection Alternative would be inconsistent with the General Plan and zoning

designations for the site because the agricultural uses which would continue on a portion of the site under this alternative are not allowed within the Industrial or Commercial land use, or within the IL or CG zoning districts. As such, similar to the Project, a General Plan amendment and rezone would be required. Overall, the impacts related to land use and population under this alternative would be similar to the proposed Project.

Noise

The primary noise sources associated with the proposed Project are on-site parking lot circulation and the loading docks, as well as from vehicular traffic. Mitigation measures provided in Section 3.12 would reduce all potential impacts to a less than significant level. The Agriculture Protection Alternative would result in an equal amount of industrial and commercial uses compared to the Project; therefore, the noise impacts associated with vehicular and operational activities of the proposed Project would be equal under this alternative. All noise issues would be mitigated, as appropriate, through noise attenuation and best management practices under both the proposed Project and the Agriculture Protection Alternative. Therefore, under this alternative, noise impacts are similar when compared to the proposed Project.

Public Services

Development of the proposed Project will require payment of all applicable fees and assessments required to fund its fair share of public services. This funding would assist in the development of facilities in order to meet the City's standards. The proposed Project would have a less than significant impact to fire, police, schools, and recreational facilities.

Under the Agriculture Protection Alternative, the proposed Project would be developed with the same types and amounts of commercial, industrial, open space, and public facility uses as described in the Project Description, but the amount of developed land would decrease by 50 percent. Both the proposed Project and the Agriculture Protection Alternative would result in less-than-significant impacts to public services. As such, impacts to public services under this alternative would be comparable to the proposed Project.

Transportation and Circulation

It was determined that the proposed Project would cause an increase in VMT for home-based work trips per employee for Baseline and Cumulative With Project Conditions. Mitigation was identified to alleviate long term impacts; however, impacts related to VMT were deemed to be significant and unavoidable. All other transportation related impacts were determined to be less than significant. Under this alternative, the proposed Project would be developed with the same amount of industrial and commercial areas. The equal amount of commercial and industrial uses would result in an equal amount of traffic generated from the Agriculture Protection Alternative.

Uses in the Agriculture Protection Alternative would be required to adhere to the same mitigation measures as the proposed Project; however, the significant and unavoidable VMT impact would remain under this alternative. Overall, the Agriculture Protection Alternative would result in equal traffic related impacts when compared to the proposed Project.

Utilities

Implementation of the proposed Project would result in increased flows to the public wastewater system. The wastewater system is capable of handling the increased flows with their existing permit and infrastructure.

Implementation of the proposed Project would result in increased demand for potable water. The City has adequate water supply to handle the increased demand with their existing supply and infrastructure.

Implementation of the proposed Project would result in increased storm drainage from new impervious surfaces. The proposed Project includes a storm drainage collection system to handle the increased storm drainage.

Implementation of the proposed Project would result in increased generation of solid waste. However, the landfill has adequate capacity to dispose the solid waste.

Under this alternative, the same components as described in the Project Description would be developed, but the amount of developed land would be reduced resulting in an increase of undeveloped land when compared to the Project. The commercial and industrial uses would be two-story in order to reduce the developed area footprint while providing the same square footage as the Project. This would result in a comparable amount of wastewater, water demand, and solid waste generated from the Project site. The total Project area would decrease from 422.22 acres to 211.11 acres. The remaining 211.11 acres outside of the Agriculture Protection Alternative area would remain in their current condition (agricultural and open space uses). This alternative would increase the amount of pervious soils, thereby increasing opportunities for stormwater retention at the Project site. However, uses in Agriculture Protection Alternative would be required to adhere to the same mitigation measures as the proposed Project. The Agriculture Protection Alternative would result in a comparable demand on utility systems when compared to the proposed Project.

Overall, this alternative would have similar wastewater treatment demand, similar water demand, similar solid waste generated, and similar storm water runoff when compared to the proposed Project. As such, this alternative would have similar utilities impacts when compared to the proposed Project.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an environmentally superior alternative be identified among the alternatives that are analyzed in the EIR. If the No Project (No Build) Alternative is the environmentally superior alternative, an EIR must also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). The environmentally superior alternative is that alternative with the least adverse environmental impacts when compared to the proposed Project.

Table 5.0-1 presents a comparison of the alternative Project impacts with those of the proposed Project. As shown in the table, the No Project (No Build) Alternative is the environmentally superior alternative. However, as required by CEQA, when the No Project (No Build) Alternative is the

environmentally superior alternative, the environmentally superior alternative among the others must be identified. Therefore, the Reduced Project Alternative and Agriculture Protection Alternative both rank higher than the proposed Project. The Reduced Project Alternative would have equal impacts in three areas, slightly less impacts in seven areas, and less impacts in four areas. The Agriculture Protection Alternative would have equal impacts in nine areas and less impacts in five areas. Therefore, the Reduced Project Alternative would be the next environmentally superior alternative. It is noted that neither the Agriculture Protection Alternative nor the Reduced Project Alternative fully meet all of the Project objectives. See Section 5.4 below for a comparative evaluation of the objectives for each alternative.

TABLE 5.0-1: COMPARISON OF ALTERNATIVE PROJECT IMPACTS TO THE PROPOSED PROJECT

<i>ENVIRONMENTAL ISSUE</i>	<i>NO PROJECT (NO BUILD) ALTERNATIVE</i>	<i>REDUCED PROJECT ALTERNATIVE</i>	<i>AGRICULTURE PROTECTION ALTERNATIVE</i>
Aesthetics and Visual Resources	Less (Best)	Slightly Less (3rd Best)	Less (2nd Best)
Agricultural Resources	Less (Best)	Slightly Less (3rd Best)	Less (2nd Best)
Air Quality	Less (Best)	Less (2nd Best)	Equal (3rd Best)
Biological Resources	Less (Best)	Slightly Less (3rd Best)	Less (2nd Best)
Cultural and Tribal Resources	Less (Best)	Slightly Less (3rd Best)	Less (2nd Best)
Geology and Soils	Less (Best)	Slightly Less (2nd Best)	Equal (3rd Best)
Greenhouse Gases, Climate Change and Energy	Less (Best)	Less (2nd Best)	Equal (3rd Best)
Hazards and Hazardous Materials	Less (Best)	Equal (2nd Best)	Equal (3rd Best)
Hydrology and Water Quality	Less (Best)	Slightly Less (3rd Best)	Less (2nd Best)
Land Use and Population	Greater (3 rd Best)	Equal (Best)	Equal (2nd Best)
Noise	Less (Best)	Slightly Less (2nd Best)	Equal (3rd Best)
Public Services	Less (Best)	Equal (2nd Best)	Equal (3rd Best)
Transportation and Circulation	Less (Best)	Less (2nd Best)	Equal (3rd Best)
Utilities	Less (Best)	Less (2nd Best)	Equal (3rd Best)

GREATER = GREATER IMPACT THAN THAT OF THE PROPOSED PROJECT

LESS = LESS IMPACT THAN THAT OF THE PROPOSED PROJECT

EQUAL = NO SUBSTANTIAL CHANGE IN IMPACT FROM THAT OF THE PROPOSED PROJECT

5.4 COMPARATIVE EVALUATION OF THE ALTERNATIVES' ABILITY TO SATISFY PROJECT OBJECTIVES

This section examines how each of the alternatives selected for more detailed analysis meets the Project objectives.

1. *Logical Expansion of Industrial Area: Seamless expansion of the existing industrial area around the Stockton Airport and being positioned to easily access multiple forms of transportation (i.e., rail, air, multiple state highways (I-5 and SR-99) and local road network).*

The No Project (No Build) Alternative would not satisfy this Project objective because under this alternative, the Project site would remain in its current existing condition and would not provide seamless expansion of the existing industrial area around the Stockton Airport and being positioned to easily access multiple forms of transportation. The Reduced Project Alternative would meet this objective because this alternative would result in expansion of an industrial area with access to multiple forms of transportation, including rail, air, and multiple highways. The Agriculture

5.0 ALTERNATIVES TO THE PROPOSED PROJECT

Protection Alternative would also meet this objective, but to a lesser extent than the proposed Project because the UPRR line would not be utilized.

2. *Develop a Class A Industrial Complex and Amenities: The large-scale development (298 acres of industrial uses) provides for a class A-type industrial complex with a variety of building sizes suited for a variety of end users, landscaped roadways and open space elements.*

The No Project (No Build) Alternative would not satisfy this Project objective because under this alternative, the Project site would remain in its current existing condition and would not provide a large-scale development which provides for a class A-type industrial complex with a variety of building sizes suited for a variety of end users, landscaped roadways and open space elements. Both the Reduced Project Alternative and the Agriculture Protection Alternative would develop a class A-type industrial complex with a variety of building sizes suited for a variety of end users, landscaped roadways and open space elements. However, because both alternatives would reduce the amount of industrial and commercial development. As such, both the Reduced Project Alternative and the Agriculture Protection Alternative would meet this objective, but to a lesser extent than the proposed Project.

3. *Employment Opportunities: Provide for local and regional employment opportunities that take advantage of the Project area's high level of accessibility, allow for the expansion of the City's economic base, help create a jobs/housing balance, and reduce the commute for regional residents.*

The No Project (No Build) Alternative would not satisfy this Project objective because under this alternative, the Project site would remain in its current existing condition and would not provide for local and regional employment opportunities that take advantage of the Project area's high level of accessibility, allow for the expansion of the City's economic base, help create a jobs/housing balance, and reduce the commute for regional residents. Under the Reduced Project Alternative, the amount of commercial uses would decrease from 467,834 square feet (sf) to 350,875 sf, the amount of industrial uses would decrease from 12,960,747 sf to 9,720,560 sf, and the open space area would decrease from 54 acres to 40.5 acres. This alternative would meet this objective, but to a lesser extent than the proposed Project due to the reduction in development potential under this alternative. Under the Agriculture Protection Alternative, the Project site would be developed with the same amount and type of uses as the proposed Project, but the Project site would be reduced by approximately half. Because the amount of employment-generating uses would be equal to the proposed Project, the Agriculture Protection Alternative would meet this objective.

4. *Improve Circulation: Create safe access to the industrial area by constructing an overpass of the Union Pacific Railroad line.*

The No Project (No Build) Alternative would not satisfy this objective because under this alternative, an overpass of the UPRR line would not be provided. The Reduced Project Alternative would provide an overpass and, as such, would meet this objective. Under the Agriculture Protection Alternative, because the development areas would be contained within the eastern half of the Project site, the

UPRR would not be utilized under this alternative. As such, this alternative would not meet this objective.

5. *Enhance Transportation: Create the ability to develop rail service to the three largest parcels within the SSCC Project Area, if needed.*

The No Project (No Build) Alternative would not satisfy this objective because under this alternative, rail service would not be provided. Similar to the above discussion for objective two, the Reduced Project Alternative would develop rail service to serve the industrial and commercial uses and, as such, would meet this objective. Under the Agriculture Protection Alternative, because the development areas would be contained within the eastern half of the Project site, the UPRR would not be utilized under this alternative. As such, this alternative would not meet this objective.

6. *Public Facilities and Services: Provide infrastructure and services that meet City standards and integrate with existing and planned facilities.*

The No Project (No Build) Alternative would not provide infrastructure and services that meet City standards and integrate with existing and planned facilities; as such, the No Project (No Build) Alternative would only partially achieve this objective. The Reduced Project Alternative and the Agriculture Protection Alternative would include infrastructure to serve the site; as such, both would meet this objective.

7. *Phasing: Establish a logical phasing plan designed to ensure that each phase of development would include necessary public improvements required to meet City standards, while maintaining the functionality and feasibility of the Project.*

The No Project (No Build) Alternative would not achieve this objective because this alternative would not develop the Project site in a logical phased manner. The Reduced Project Alternative and the Agriculture Protection Alternative would meet this objective because both alternatives would be phased to ensure each phase of development would include necessary public improvements required to meet City standards.

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APPENDIX A

Initial Study, Notice of Preparation, and NOP Comments (2020/2021)



NOTICE OF PREPARATION AND INITIAL STUDY

FOR THE

SOUTH STOCKTON COMMERCE CENTER PROJECT

SEPTEMBER 2020

Prepared for:

Community Development Department
City of Stockton
345 N. El Dorado Street
Stockton, CA 95202

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 580-9818



D e N o v o P l a n n i n g G r o u p

A Land Use Planning, Design, and Environmental Firm



NOTICE OF PREPARATION AND INITIAL STUDY

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(916) 580-9818

NOTICE OF PREPARATION

TO: State Clearinghouse
State Responsible Agencies
State Trustee Agencies
Other Public Agencies
Interested Organizations

FROM: Nicole D. Moore, LEED AP – Acting Current
Planning Manager
City of Stockton
345 N. El Dorado Street
Stockton, CA 95202
(209) 937-8561
Nicole.Moore@stocktonca.gov

SUBJECT: Notice of Preparation – South Stockton Commerce Center Project

EIR CONSULTANT

Steve McMurtry, Principal Planner
De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
Phone: (916) 580-9818

An Initial Study has been prepared for the proposed project and is attached to this Notice of Preparation (NOP). The Initial Study lists those issues that will require detailed analysis and technical studies that will need to be evaluated and/or prepared as part of the Environmental Impact Report (EIR). The EIR will consider potential environmental effects of the proposed project to determine the level of significance of the environmental effect, and will analyze these potential effects to the detail necessary to make a determination on the level of significance.

Those environmental issues that have been determined to be less than significant will have a discussion that is limited to a brief explanation of why those effects are not considered potentially significant. In addition, the EIR may also consider those environmental issues which are raised by responsible agencies, trustee agencies, and members of the public or related agencies during the NOP process.

We need to know the views of your agency or organization as to the scope and content of the environmental information germane to your agency's statutory responsibilities or of interest to your organization in connection with the proposed project. Specifically, we are requesting the following:

1. If you are a public agency, state whether your agency will be a responsible or trustee agency for the proposed project and list the permits or approvals from your agency that will be required for the project and its future actions;
2. Identify significant environmental effects and mitigation measures that you believe need to be explored in the EIR with supporting discussion of why you believe these effects may be significant;

3. Describe special studies and other information that you believe are necessary for the City of Stockton to analyze the significant environmental effects, alternatives, and mitigation measures you have identified;
4. For public agencies that provide infrastructure and public services, identify any facilities that must be provided (both on- and off-site) to provide services to the proposed project;
5. Indicate whether a member(s) from your agency would like to attend a scoping workshop/meeting for public agencies to discuss the scope and content of the EIR's environmental information; and
6. Provide the name, title, and telephone number of the contact person from your agency or organization that we can contact regarding your comments.

Due to the time limits mandated by State law, your response must be sent and received by the City of Stockton by the following deadlines:

- For responsible agencies, not later than 30 days after you receive this notice.
- For all other agencies and organizations, not later than 30 days following the publication of this Notice of Preparation. The 30-day review period begins September 30, 2020 and ends on October 30, 2020.

If we do not receive a response from your agency or organization, we will presume that your agency or organization has no response to make.

A responsible agency, trustee agency, or other public agency may request a meeting with the City of Stockton or its representatives in accordance with Section 15082(c) of the CEQA Guidelines. A public scoping meeting and neighborhood meeting will be held during the public review period as follows:

1. Virtual Scoping and Neighborhood Meeting: To obtain the call-in and access information please RFVP with Nicole Moore, Acting Current Planning Manager at Nicole.Moore@stocktonca.gov.

Please send your response to Nicole Moore – Acting Current Planning Manager at the City of Stockton, 345 N. El Dorado Street Stockton, CA 95202. If you have any questions, please contact Nicole Moore – Acting Current Planning Manager at (209) 937-8561 or via email at: Nicole.Moore@stocktonca.gov.

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INITIAL STUDY CHECKLIST

PROJECT TITLE

South Stockton Commerce Center

LEAD AGENCY NAME AND ADDRESS

City of Stockton
345 N. El Dorado Street
Stockton, CA 95202

CONTACT PERSON AND PHONE NUMBER

Nicole D. Moore, LEED-AP – Acting Current Planning Manager
City of Stockton
345 N. El Dorado Street
Stockton, CA 95202
Phone: (209) 937-8561
Email: Nicole.Moore@stocktonca.gov

PROJECT SPONSOR'S NAME AND ADDRESS

Ryan Van Groningen
Five Corners Group, LLC
15100 S. Jack Tone Road
Manteca, CA 95336
Phone: (209) 982-5248

PURPOSE OF THE INITIAL STUDY

An Initial Study (IS) is a preliminary analysis which is prepared to determine the relative environmental impacts associated with a proposed project. It is designed as a measuring mechanism to determine if a project will have a significant adverse effect on the environment, thereby triggering the need to prepare an Environmental Impact Report (EIR). This Initial Study has been prepared consistent with CEQA Guidelines Section 15063, to determine if the proposed project may have a significant effect upon the environment.

PROJECT LOCATION AND SETTING

PROJECT LOCATION

The proposed Project site is comprised of 437.45 acres located in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport. The Project site is located west of the 99 Frontage Road and State Route (SR) 99 and east of Airport Way. The Union Pacific Railroad (UPRR) extends south from Airport Way bisecting the western portion of the site. French Camp Sough extends southeast from Airport Way across the southwestern portion of the site. It continues east under the UPRR and then south across the southwestern portion of the site, before continuing south off-site. Figures 1 and 2 show the Project's regional location and vicinity.

The Project site is made up of five assessor parcels (APN's), which are listed in Table 1, and are displayed on Figure 3.

TABLE 1: PARCELS WITHIN THE PROJECT AREA

APN	ADDRESS	ACREAGE
177-110-040	6110 S. Airport Way	218.29
177-100-030	7070 S. Airport Way	76.03
177-110-050	6122 S. Airport Way, Stockton	3.27
201-020-010	9091 S. State Route 99	75.07
177-050-090	8606 S. Airport Way	64.79
Total		437.45

EXISTING SITE USES

The Project site is comprised of active agricultural fields. The majority of the fields produce watermelons, with a walnut orchard located in the eastern portion of the site. Figure 4 shows aerial imagery of the current existing site uses within the Project site.

EXISTING SURROUNDING USES

The Project site is primarily bounded by lands within the County to the north, east and south. Lands within the City of Stockton are located to the west. Uses within the surrounding area include the following:

- North – Rydberg Creek, Army National Guard and Stockton Airport are located to the north. These uses are located within the County.
- East – Agricultural lands, 99 Frontage Road and SR 99.
- South – Agricultural lands and Duck and Lone Tree Creeks.
- West – The UPPR, Airport Way, and agricultural lands.

STOCKTON GENERAL PLAN LAND USE AND ZONING DESIGNATIONS

GENERAL PLAN LAND USE DESIGNATIONS

The Envision Stockton 2040 General Plan Land Use Map (Figure 2-8) designates the Project site as Industrial, Commercial, and Open Space/Agriculture. Figure 5 depicts the Envision 2040 Stockton General Plan land use designations for the Project site and the surrounding areas. The General Plan contains the following standards to guide development for these land uses:

Industrial (I): This designation allows for a wide variety of industrial uses, including uses with nuisance or hazardous characteristics, warehousing, construction contractors, light manufacturing, offices, Retail Sales, service businesses, public and quasi-public uses, and other similar and compatible uses. Residential uses are prohibited. The maximum FAR for industrial uses is 0.6.

Commercial (C): This designation allows for a wide variety of retail, service, and commercial recreational uses; business, medical, and professional offices; residential uses; public and quasi-public uses; and other similar and compatible uses. Community or regional commercial centers

as well as freestanding commercial establishments are permitted. In addition, limited industrial uses are allowed, provided that they are indoors and compatible with surrounding uses. The maximum FAR ranges differ based on the geographic area. Outside the Greater Downtown, the maximum FAR is 0.3.

Open Space/Agriculture (OS/A): This designation allows for agriculture, parks, single-family residential units, farm worker housing, wetlands, wildlife reserves, and other similar and compatible uses and structures related to the primary use of the property for preservation of natural resources or agriculture. Lands under this designation are intended to remain unincorporated and under the jurisdiction of San Joaquin County. The minimum parcel size is 40 acres, maximum density is 1 dwelling unit per parcel, and maximum FAR is 0.01. The Open Space/Agriculture land use designation within the Project area is currently located near the French Camp Slough, and this area would not be altered by the proposed Project.

ZONING DESIGNATIONS

The Project site is zoned IL (Industrial, Light), CG (Commercial, General), and OS (Open Space).¹ Figure 6 depicts the City's zoning districts for the Project site and the surrounding areas. Below is a general description of the zoning districts within the Project site.

IL (Industrial, Limited) District: This zone is applied to areas appropriate for light manufacturing uses that may generate more nuisance impacts than acceptable in commercial zoning districts and whose operations are totally conducted indoors. Includes retail stores and ancillary office uses. The IL zoning district is consistent with the industrial land use designation of the General Plan.

CG (Commercial, General) District: This zone is applied to areas appropriate for a wide variety of general commercial uses, including retail, personal and business services; commercial recreational uses; and a mix of office, commercial, and/or residential uses. The CG zoning district is consistent with the commercial land use designation of the General Plan.

OS (Open Space) District: This zone is applied to areas of the City with open space resources, including agricultural lands, wetlands, wildlife reserves, and other sensitive natural resources; passive recreational areas such as golf courses; or natural hazards. Structural uses are limited to those which support the maintenance and/or use of the open space area. The OS zoning district is consistent with the open space and agricultural land use designations of the General Plan.

SURROUNDING GENERAL PLAN DESIGNATIONS

Within San Joaquin County, lands to the north and east of the Project site are designated Public (P/F) and lands to the south are designated Urban Reserve (A/UR) and General (A/G). Within the City, lands to the west are designated Industrial. The City's General Plan also designates land to

¹ The Stockton Zoning Map (last revised June 29, 2020) identifies the zoning for APN 177-050-09 as CG (Commercial), RM (Residential Medium-Density), and RH (Residential High-Density). However, City of Stockton Ordinance No. 2019-07-16-1501-02 (adopted July 16, 2019, effective August 15, 2019) rezoned APN 177-050-09 to IL (Industrial-Limited) and CG (Commercial), consistent with the Industrial and Commercial General Plan Land Use Designations.

the east and south (within unincorporated San Joaquin County) as Industrial and Open Space/Agriculture. The City of Stockton and San Joaquin County General Plan land use designations for the Project site and surrounding areas are shown on Figure 6.

PROJECT DESCRIPTION

PROJECT OBJECTIVES

Consistent with CEQA Guidelines Section 15124(b), a clear statement of objectives and the underlying purpose of the proposed Project shall be discussed. The principal objective of the proposed Project is the approval and subsequent implementation of the South Stockton Commerce Center (SSCC) Project (the proposed Project). The quantifiable objectives of the proposed Project include the development of approximately 437-acres of land which will include: industrial, commercial, open space, public facilities, and public roadway right-of-way land uses, as described below.

The Project area aims to develop in multiple phases, a well-planned industrial type project that will attract businesses to the City of Stockton and provide for local employment opportunities. The Project also provides for a seamless expansion of the existing industrial area located in southeast Stockton, in the vicinity of the Stockton Airport, and will create the opportunity to create rail served parcels from the adjacent Union Pacific rail line.

The quantifiable objectives of the proposed SSCC Project include the following:

- Development of approximately 300 acres of industrial uses (building and parking areas);
- Development of approximately 41 acres of public facilities (storm basins and pump stations);
- Creation of approximately 54 acres of open space (park area and avoidance of French Camp Slough); and
- Build up to a maximum of 6,091,551 square feet of employment-generating industrial uses.

The following objectives have been identified for the proposed SSCC Project:

- **Employment Opportunities:** Provide for local and regional employment opportunities that take advantage of the Project area's high level of accessibility, allow for the expansion of the City's economic base, help create a jobs/housing balance, and reduce the commute for regional residents.
- **Improve Circulation:** Create safe access to the industrial area by constructing an overpass of the Union Pacific Railroad line.
- **Enhance Transportation:** Create the ability to develop rail service to the three largest parcels within the SSCC Project Area, if needed.
- **Public Facilities and Services:** Provide infrastructure and services that meet City standards and integrate with existing and planned facilities.
- **Phasing:** Establish a logical phasing plan designed to ensure that each phase of development would include necessary public improvements required to meet City standards.

PROJECT CHARACTERISTICS

The SSCC Project proposes a Tentative Map for the 437.45-acre site to create 13 development lots, two basin lots, one park lot, one open space lot, and one sewer pump station lot. Of the 13 development lots, 12 will be for development of a mix of industrial uses and one will be for development of commercial uses.

More specifically, the SSCC Project Tentative Map proposes approximately 298 net acres of limited industrial uses. Although a Site Plan is not currently proposed, for planning purposes a conceptual site plan was prepared to establish a target Floor Area Ratio (FAR) that was used to generate the maximum square footage of building area for the Tentative Map and for purposes of environmental review. Based on a FAR of .47, a maximum of 6,091,551 square feet of industrial type land uses could be developed throughout the site. Table 1, SSCC Land Use Summary, identifies the land uses and associated development potential.

The SSCC Tentative Map also proposes approximately 11 acres of general commercial uses located between Airport Way and the UPRR right-of-way. Similar to the industrial uses, a Site Plan is not currently proposed; however, based on a FAR of .30, a maximum of 140,350 square feet of commercial land uses could be developed in this area; refer to Table 2.

TABLE 2: SSCC LAND USE SUMMARY

LAND USE	ACREAGE (NET)	TOTAL SQUARE FEET PER LAND USE	FLOOR AREA RATIO	MAXIMUM SQUARE FEET
Commercial	11	467,834	.30	140,350
Industrial ¹	298	12,960,747	.47	6,091,551
Open Space	54	--	--	--
Public Facilities (Storm Basins, Outfall and Pump Stations)	41	--	--	--
Roadway Right of Way	19	--	--	--
TOTAL	423	--	--	6,231,901
For purposes of the environmental analysis, a range of industrial uses is assumed. These uses include general light industrial, industrial park, warehousing, mini-warehouse, high-cube transload and short-term storage warehouse, high-cube fulfillment center warehouse, high-cube parcel hub warehouse, and high-cube cold storage warehouse.				

The project proposes approximately 54 acres of open space area within the site, which will include approximately seven acres of park space located east of the UPRR and south of the future Commerce Drive (refer to the Circulation Improvements discussion below). The Project anticipates development of a passive park with shade structures and picnic tables for use by employees and visitors within the site.

Approximately 41 acres of the site will be for public facilities uses to serve the development, including storm basins, outfall, and pump stations; refer to the Utilities and Planned Infrastructure Improvements discussion below. The Project proposes to locate a sewer pump lot (0.28 acres) at the northeast corner of Airport Way and future Commerce Drive, within the portion of the site designated Commercial.

Approximately 19 acres of the site will consist of the proposed west-east road right-of-way (referred to as Commerce Drive), which will provide connections to the SR 99 Frontage Road and Airport Way; refer to the Circulation Improvements discussion below.

The remaining approximately 14 acres of the site will be identified as remainder areas, and are not identified for development, therefore these 14 acres are not listed in Table 2.

GENERAL PLAN AMENDMENT AND REZONE

Although the proposed SSCC Project is consistent with the site's existing General Plan and Zoning designations, due to limitations caused by the floodway along French Camp Slough and the location of drive entrances for surrounding developments, the alignment of the future Commerce Drive requires a General Plan Amendment and Rezone of the two areas between Airport Way and the Union Pacific Railroad right-of-way. As seen on Figures 5 and 6, these areas are currently designated Commercial and Industrial and are zoned CG and IL, respectively. The current boundaries of the designations will be modified to be consistent with the future Commerce Drive right-of-way center line. The area to the north of the Commerce Drive right-of-way centerline will be designated Commercial and zoned CG and the area to the south of the Commerce Drive right-of-way centerline will be designated Industrial and zoned IL. Figure 8 and Figure 9 show the proposed boundary modifications to the General Plan land use designations and Zoning districts for these two areas.

CIRCULATION IMPROVEMENTS

The Project proposes a west-east trending primary road referred to as Commerce Drive that will provide access to Airport Way to the west and the 99 Frontage Road to the east. A grade separated crossing over the UPRR right-of-way will be constructed to accommodate the primary access road and avoid conflicts with the UPRR rail line.

The majority of Commerce Drive is proposed to have a 78-foot right-of-way with one 16-foot traffic lane in each direction, and a 16-foot center turn lane. Five-foot landscaped areas would separate the traffic lanes from the 8-foot sidewalks on both the north and south sides of the road.

As Commerce Drive approaches the intersection with Airport Way, the right-of-way will be reduced to 77 feet 5 inches and provide one 16-foot westbound traffic lane, a 16-foot left turn lane, a 14-foot eastbound traffic lane, and a 16-foot eastbound traffic lane. Five-foot landscaped areas and 8-foot sidewalks would continue to be provided on both the north and south sides of the road.

The grade separated crossing over the UPRR right-of-way will be 40-feet with one 16-foot travel lane in each direction. An eight-foot pedestrian walkway will be provided on the north side of the overcrossing.

As part of the Project, a 10-foot wide right-of-way dedication will be provided along Airport Way, adjacent to the Project site.

The Project also proposes to potentially include rail service to up to three large parcels (parcels 2, 3, and 4) within the Project site. A potential railroad spur line would extend east from the UPRR along the Project site's northern edge providing rail access to the parcels.

The 99 Frontage Road will provide access to the Arch Road and SR 99 Interchange. Airport Way will provide access to both the French Camp/Arch Road and Interstate 5 Interchange and the French Camp and the SR 99 Interchange.

UTILITIES AND PLANNED INFRASTRUCTURE IMPROVEMENTS

The construction of infrastructure improvements will be required to accommodate development of the proposed Project, as described below. It should be noted that the potential environmental impacts associated with off-site infrastructure improvements associated with the larger Tidewater Crossing Project, which included the SSCC Project site, were analyzed as part of the Tidewater Crossing Project Environmental Impact Report (SCH No. 2005122101) certified on October 28, 2008. Thus, the SSCC Project environmental analysis will focus on the proposed on-site improvements.

Potable Water. The Project proposes a 24-inch water line to be located within the proposed Commerce Drive right-of-way. The proposed water line will connect to the existing City of Stockton water main in Airport Way and the future City of Stockton water main in 99 Frontage Road, identified as part of the Tidewater Crossing Project. The City is extending existing water lines from Arch Airport Road along 99 Frontage Road to proposed Commerce Drive.

Wastewater. As stated above, a sewer pump station is proposed to be located at the northeast corner of Airport Way and the future Commerce Drive. A sewer line (ranging from 8 to 21 inches) will be located within the proposed Commerce Drive right-of-way. Within the western portion of Parcel 2, the sewer line within the Commerce Drive right-of-way will shift north outside of the Commerce Drive right-of-way into Parcel 2 and extend west along the southern edge of Parcel 1, continuing under the UPRR right-of-way. West of the UPRR right-of-way, the sewer line will extend into the proposed Commerce Drive right-of-way. The sewer line within the Commerce Drive right-of-way will connect to a proposed 36-inch sewer line within Airport Way. The sewer line within Airport Way will extend to the intersection of Industrial Drive and Airport Way and connect to an existing 66-inch sewer pipe.

It should be noted that as part of a separate development project associated with the Tidewater Area, a Sewer Master Plan is currently being prepared that will provide the engineering detail related to the construction of future force mains within Airport Way and the proposed sewer pump station.

Storm Drain. The Project proposes to construct two storm drain detention basins to provide flood control. The primary basin will be approximately 28 acres located within the northwest corner of the Project site, east of the UPRR right-of-way. The Project proposes to construct a storm drainage flood channel generally along the northern edge of Parcels 3, 4 and 5. The drainage channel will connect to a proposed outfall to the detention basin, generally located within the northeast area of the basin. A storm drain (ranging from 15 to 84 inches) is proposed

within the proposed Commerce Drive right-of-way. The storm drain will extend from Commerce Drive along the southern and western edges of Parcel 1 and connect to the proposed outfall to the detention basin. The proposed outfall and a storm drain pump station are proposed to be located generally within the southwest area of the basin.

The secondary basin will be approximately 13 acres, located west of the UPRR right-of-way, between the future Commerce Drive and French Camp Slough. The proposed storm drain in Commerce Drive will connect to the proposed outfall to the detention basin, generally located within the northeast area of the basin. An outfall from the basin to French Camp Slough will also be constructed (exact size and location to be determined).

DEVELOPMENT AGREEMENT

The proposed project includes a request for approval of a Development Agreement (DA) governing the relationship between the City of Stockton and the SSCC Applicant, or its successors. A primary purpose of the DA may be to regulate development density and intensity over an extended period of time; however, the DA would not increase the maximum density or development intensity. The DA will also be used to establish other agreements between the City/Applicant (or its successors) related to the project. Such other agreements may include, but are not limited to, commitments to project entitlements and development standards as well as any other administrative and/or financial relationships that may be defined during the review of the initial application or subsequent applications related to developing the project.

REQUESTED ENTITLEMENTS AND OTHER APPROVALS

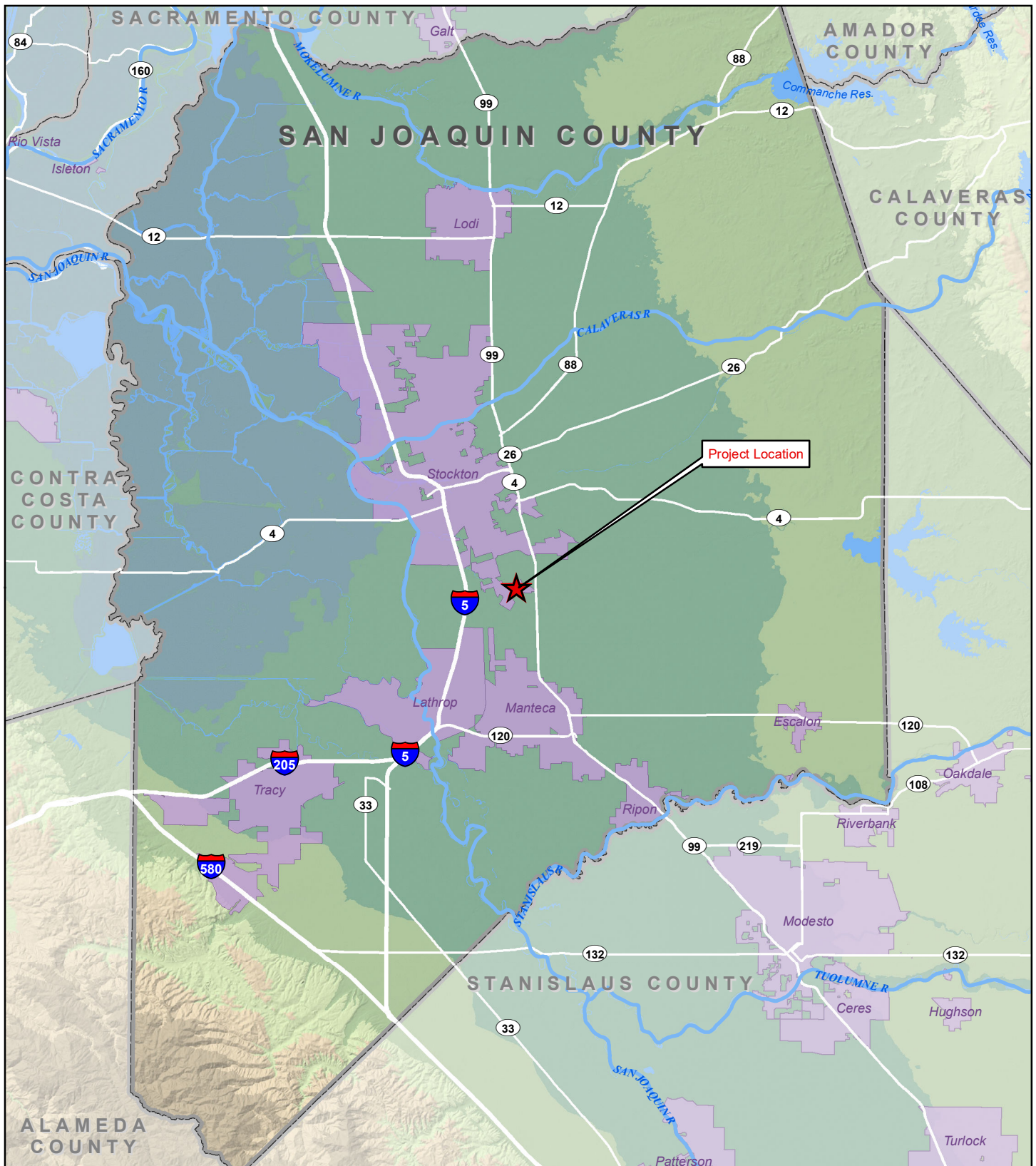
The City of Stockton will be the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of the California Environmental Quality Act (CEQA), Section 15050. Actions that would be required from the City include, but are not limited to the following:

- Certification of the EIR;
- Adoption of the Mitigation Monitoring and Reporting Program;
- Approval of City of Stockton General Plan Amendment
- Approval of City of Stockton Zoning Map Amendment
- Approval of Tentative and Final maps;
- Approval of Improvement Plans;
- Approval of Grading Plans;
- Approval of Building Permits;
- Approval of Site Plan Review;
- Approval of Design Review;
- Approval of Completeness Review;
- Approval of Development Agreement;
- Issuance of grading, encroachment, and building permits;
- City review and approval of Project utility plans;




OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (E.G., PERMITS, ETC.)

The following agencies may be required to issue permits or approve certain aspects of the proposed project. Other governmental agencies that may require approval include, but are not limited to, the following:

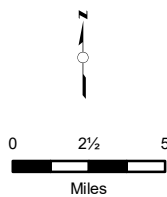
- Union Pacific Railroad – Encroachment Permit for the sewer line and Easement for the proposed overpass;
- California Department of Fish and Wildlife – Streambed Alteration Agreement pursuant to Section 1602 of the California Fish and Game Code;
- United States Army Corps. Of Engineers (USACE) – Permitting of federal jurisdictional areas pursuant to Section 404 of the Clean Water Act.
- Central Valley Regional Water Quality Control Board (CVRWQCB) – Storm Water Pollution Prevention Plan (SWPPP) approval prior to construction activities pursuant to the Clean Water Act;
- CVRWQCB – Water quality certification pursuant to Section 401 of the Clean Water Act;
- San Joaquin Valley Air Pollution Control District (SJVAPCD) – Approval of construction-related air quality permits;
- San Joaquin Valley Air Pollution Control District (SJVAPCD) – As an industrial development, the Project may be subject to Indirect Source Review (ISR) by the SJVAPCD. The storm drain pump station may require an Authority to Construct and, Permit to Operate;
- French Camp McKinley Fire District – Plan check of the site plan and roadway improvements for adequate emergency vehicle access and fire flow capabilities;
- Central Valley Flood Protection Board (CVFPB) – Approval of the storm drainage flood channel;
- CVRWQCB – Permitting of State jurisdictional areas, including French Camp Slough, pursuant to the Porter-Cologne Water Quality Act;
- San Joaquin County Flood Control and Water Conservation District – Approval of the proposed storm basins, outfall and pump stations;
- Sacramento & San Joaquin Drain District (SSJDD) – Approval for construction of an outfall; and
- San Joaquin Council of Governments (SJCOG) – Issuance of incidental take permit under the San Joaquin Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).



LEGEND

-  Project Location
-  County Boundary
-  City Area

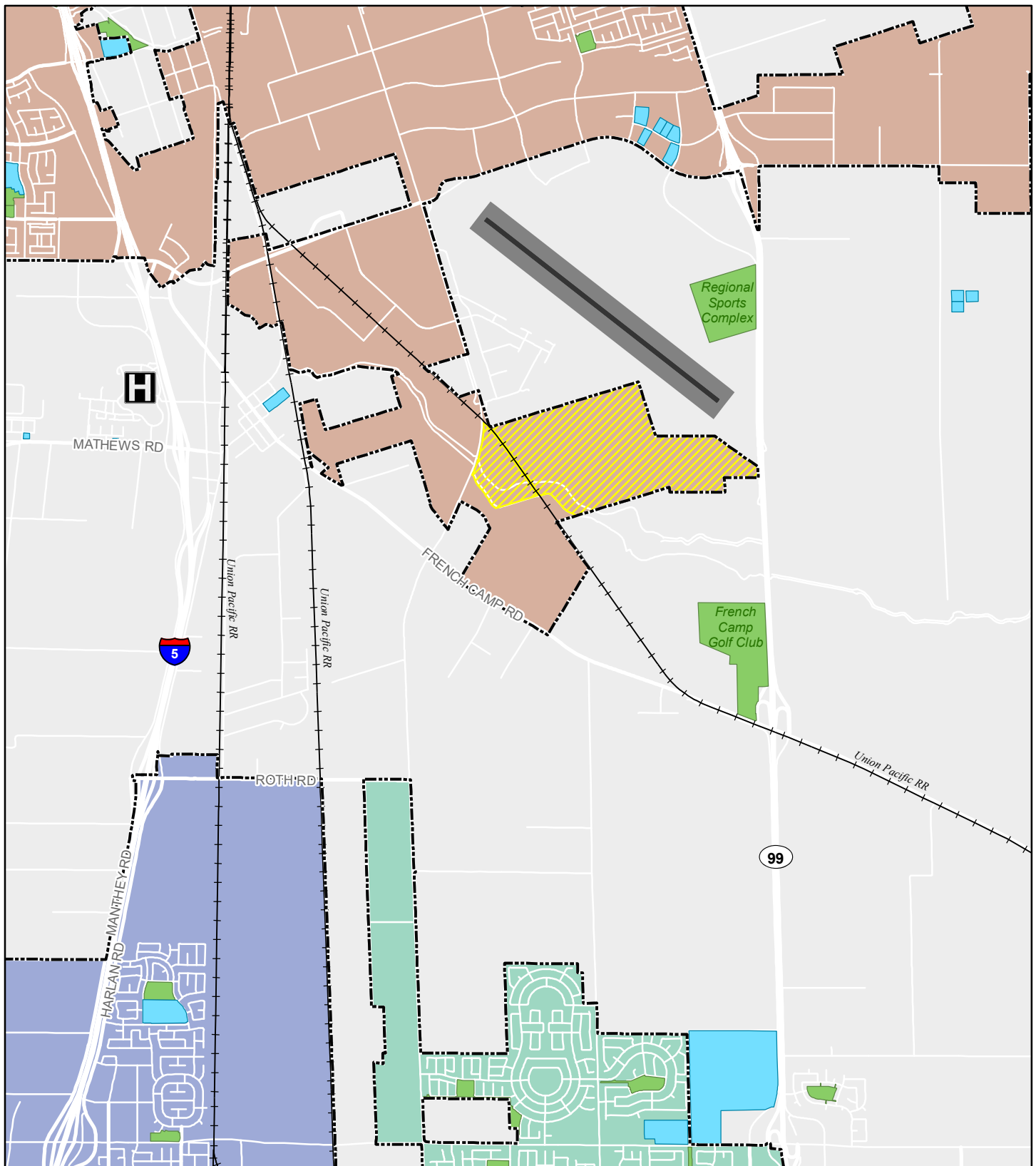
Sources: CalAtlas; California County GIS Departments. Map date: July 20, 2020.



SOUTH STOCKTON COMMERCE CENTER

Figure 1. Regional Location Map

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LEGEND

Project Location

City Limits

Stockton

Lathrop

Manteca

Public Facilities

Park

Schools

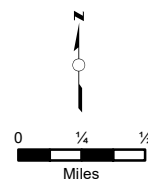
San Joaquin General Hospital

Stockton Metropolitan Airport

Runway

Primary Surface

Sources: San Joaquin County GIS. Map date: July 20, 2020.

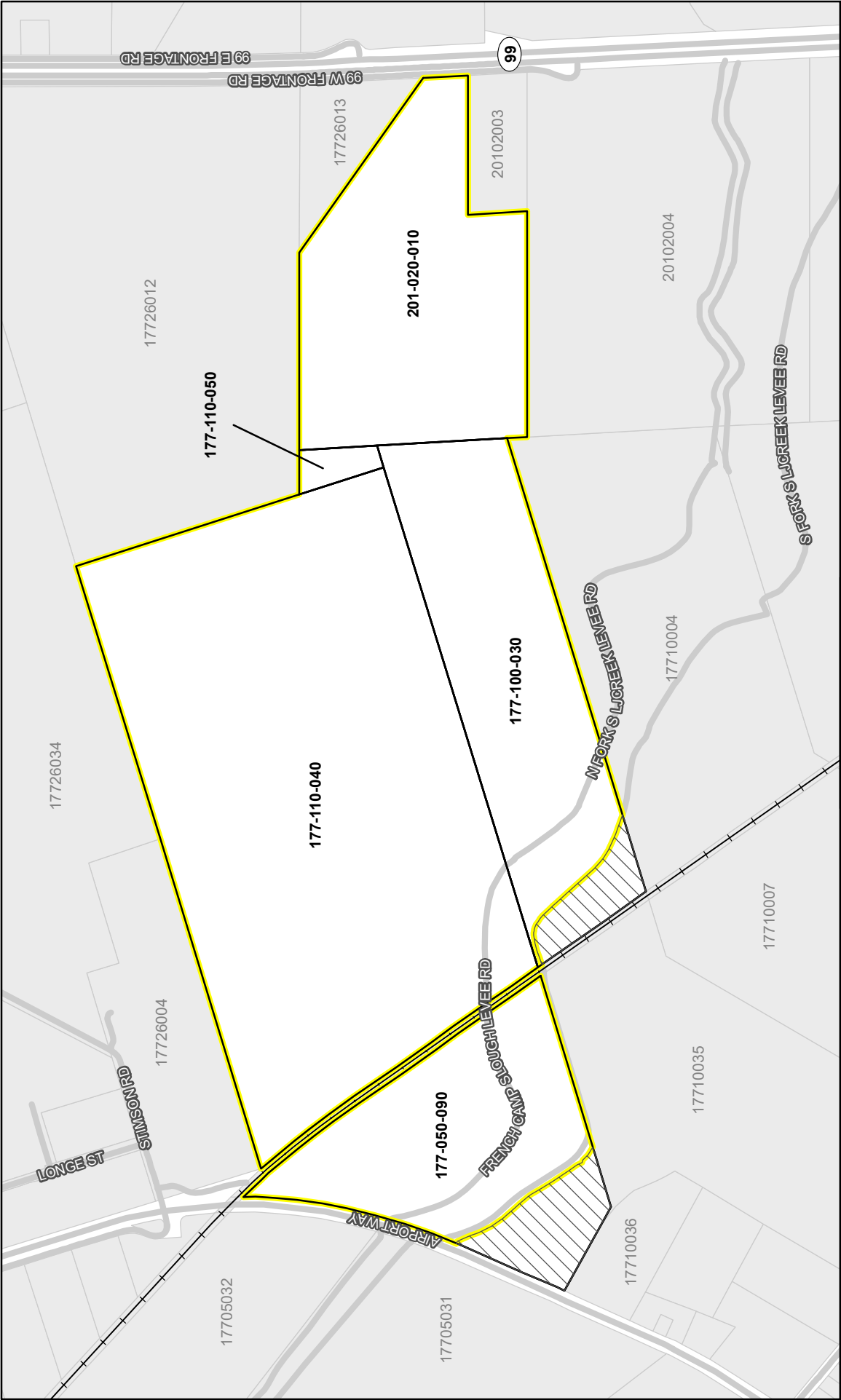


SOUTH STOCKTON COMMERCE CENTER

Figure 2. Vicinity Map

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LEGEND

- Project Boundary
- Project Parcels
- Portion of Parcel Excluded from Project
- Surrounding Parcels

SOUTH STOCKTON COMMERCE CENTER

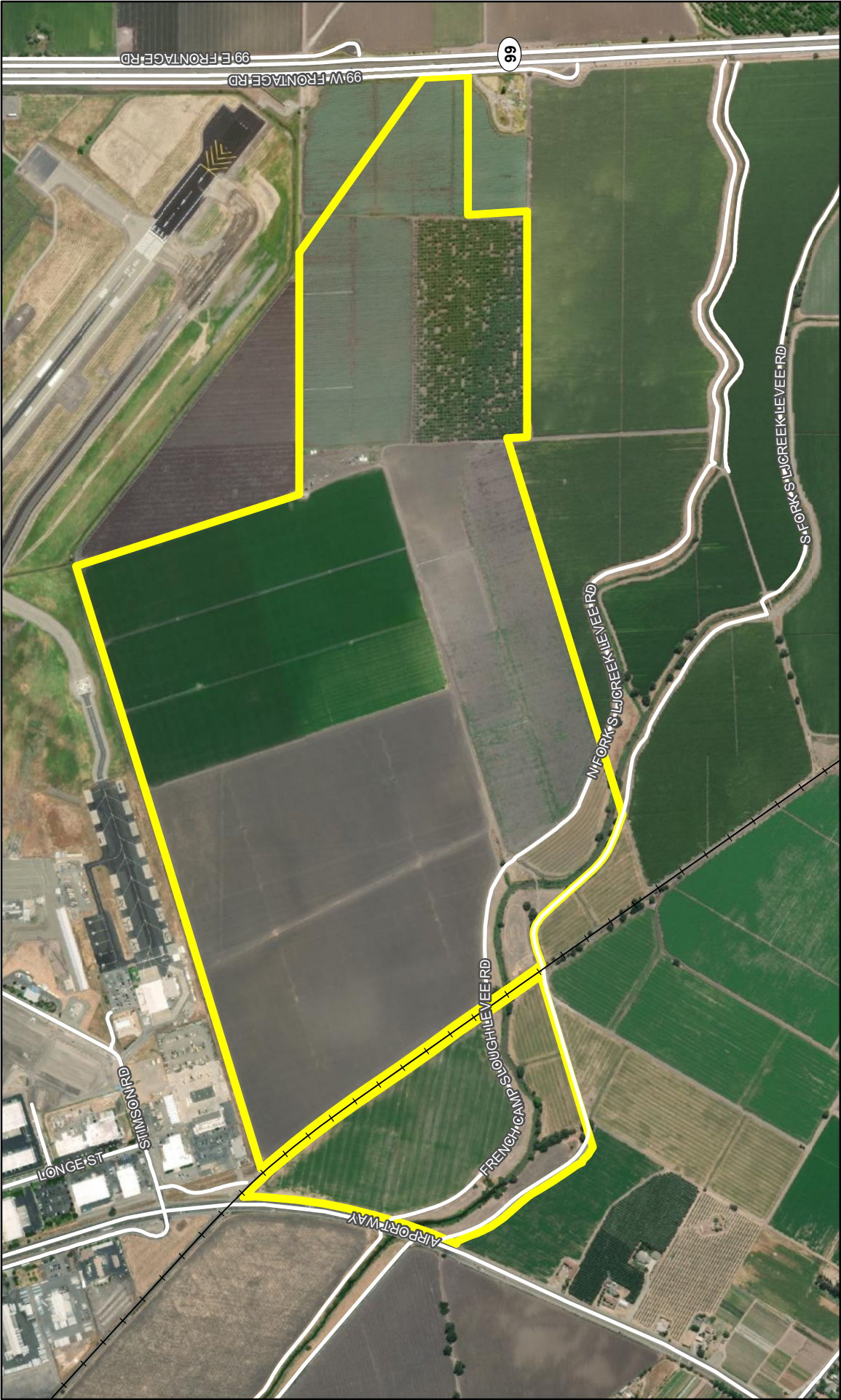
Figure 3. Assessor's Parcel Map

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0 500 1,000
Feet

Source: San Joaquin County GIS. Map date: July 20, 2020.

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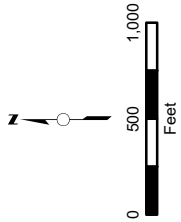


LEGEND

 Project Boundary

SOUTH STOCKTON COMMERCE CENTER

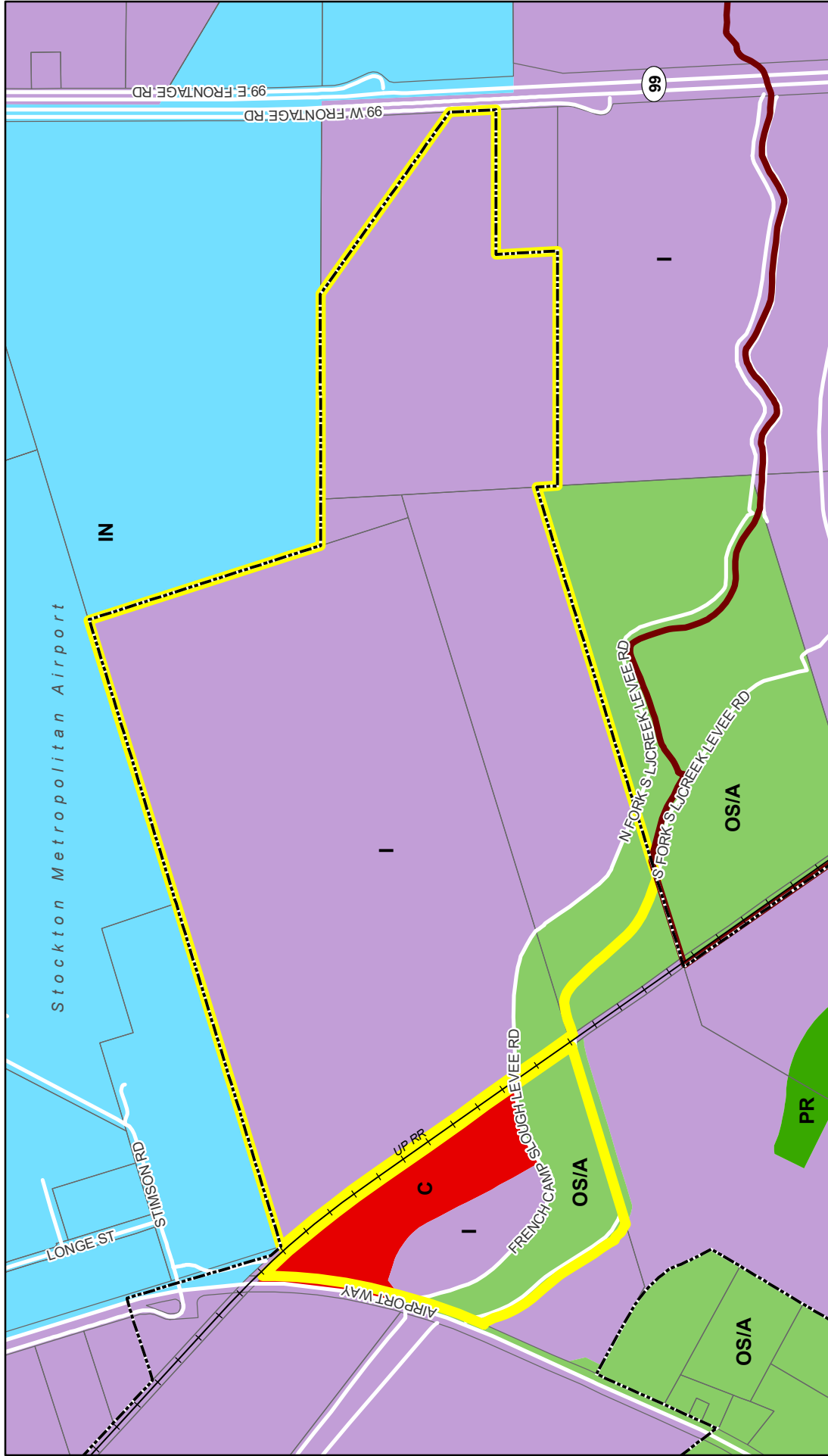
Figure 4. Aerial View of Project Site



Sources: San Joaquin County GIS; ArcGIS Online World Imagery Map Service. Map date: July 20, 2020.

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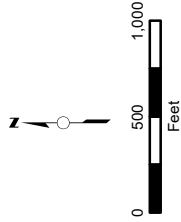
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LEGEND

- Project Boundary
 - Stockton Sphere of Influence
 - Stockton City Limits
 - Assessor Parcel
- City of Stockton General Plan Land Use**
- C - Commercial
 - I - Industrial
 - IN - Institutional
 - OS/A - Open Space/Agriculture
 - PR - Parks and Recreation

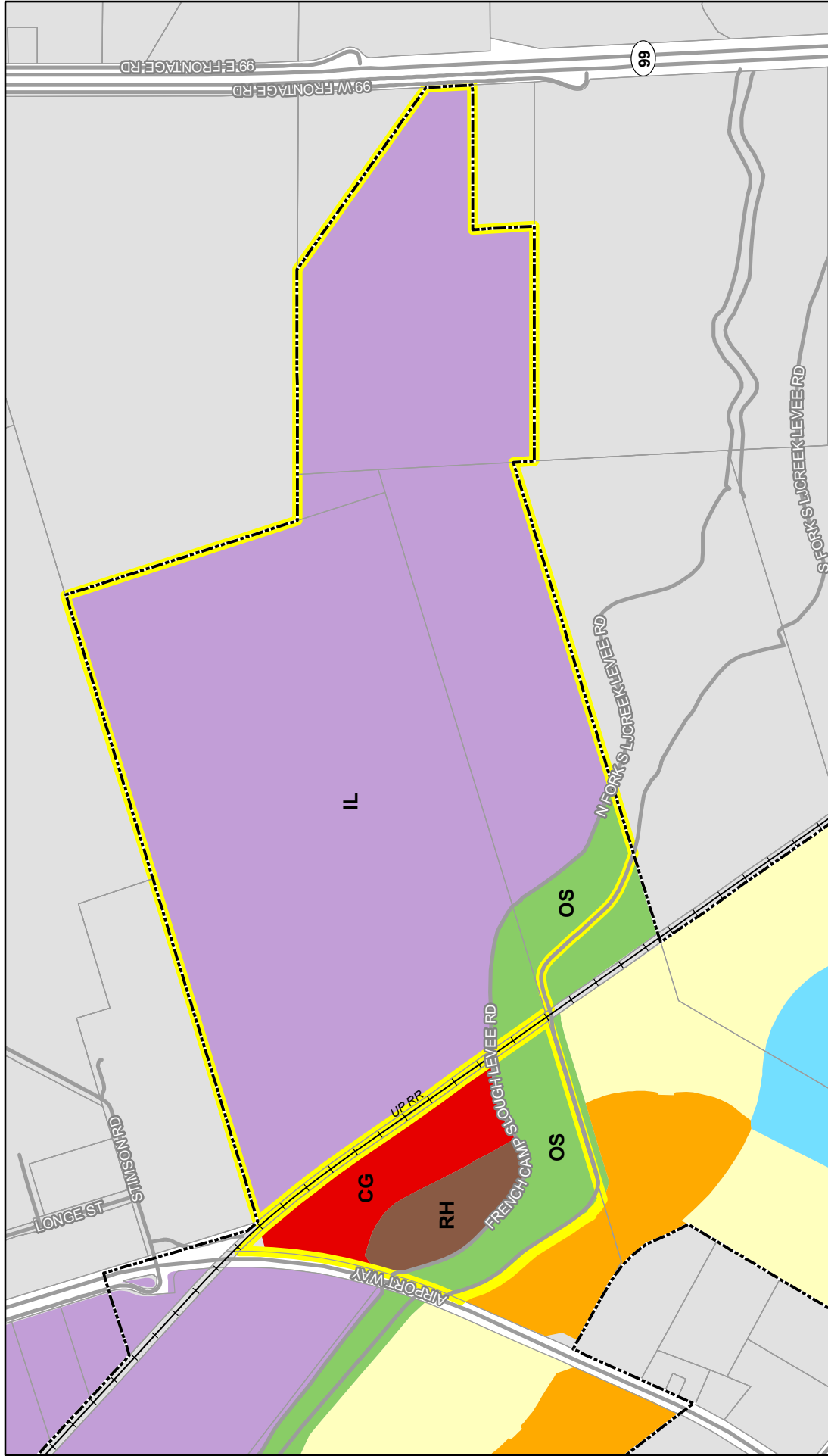
Sources: San Joaquin County GIS; City of Stockton GIS. Map date: July 20, 2020.



SOUTH STOCKTON COMMERCE CENTER

Figure 5. Existing General Plan Land Use

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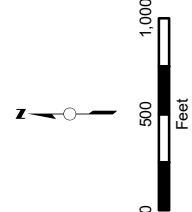


SOUTH STOCKTON COMMERCE CENTER

Figure 5. Existing Zoning Districts

LEGEND

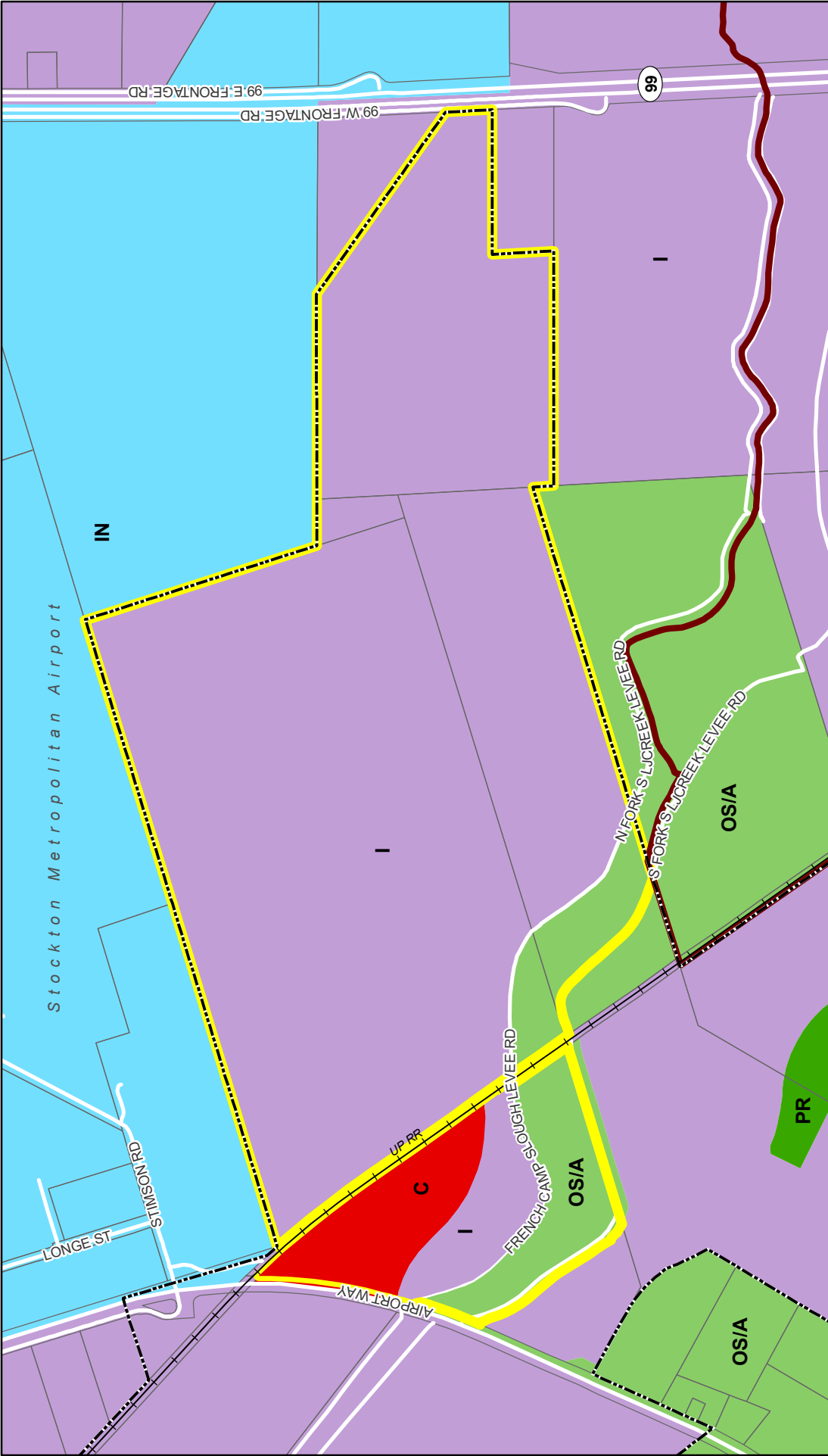
- Project Boundary
- Stockton City Limits
- Assessor Parcel
- Zoning Districts**
 - RL - Residential Low
 - RM - Residential Medium
 - RH - Residential High
 - IL - Industrial Limited
 - CG - Commercial General
 - PF - Public Facility
 - OS - Open Space



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SOUTH STOCKTON COMMERCE CENTER

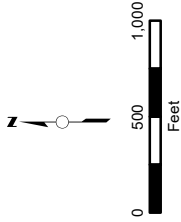
Figure 8. Proposed General Plan Land Use

LEGEND

Project Boundary
 Stockton Sphere of Influence
 Stockton City Limits
 Assessor Parcel

City of Stockton General Plan Land Use

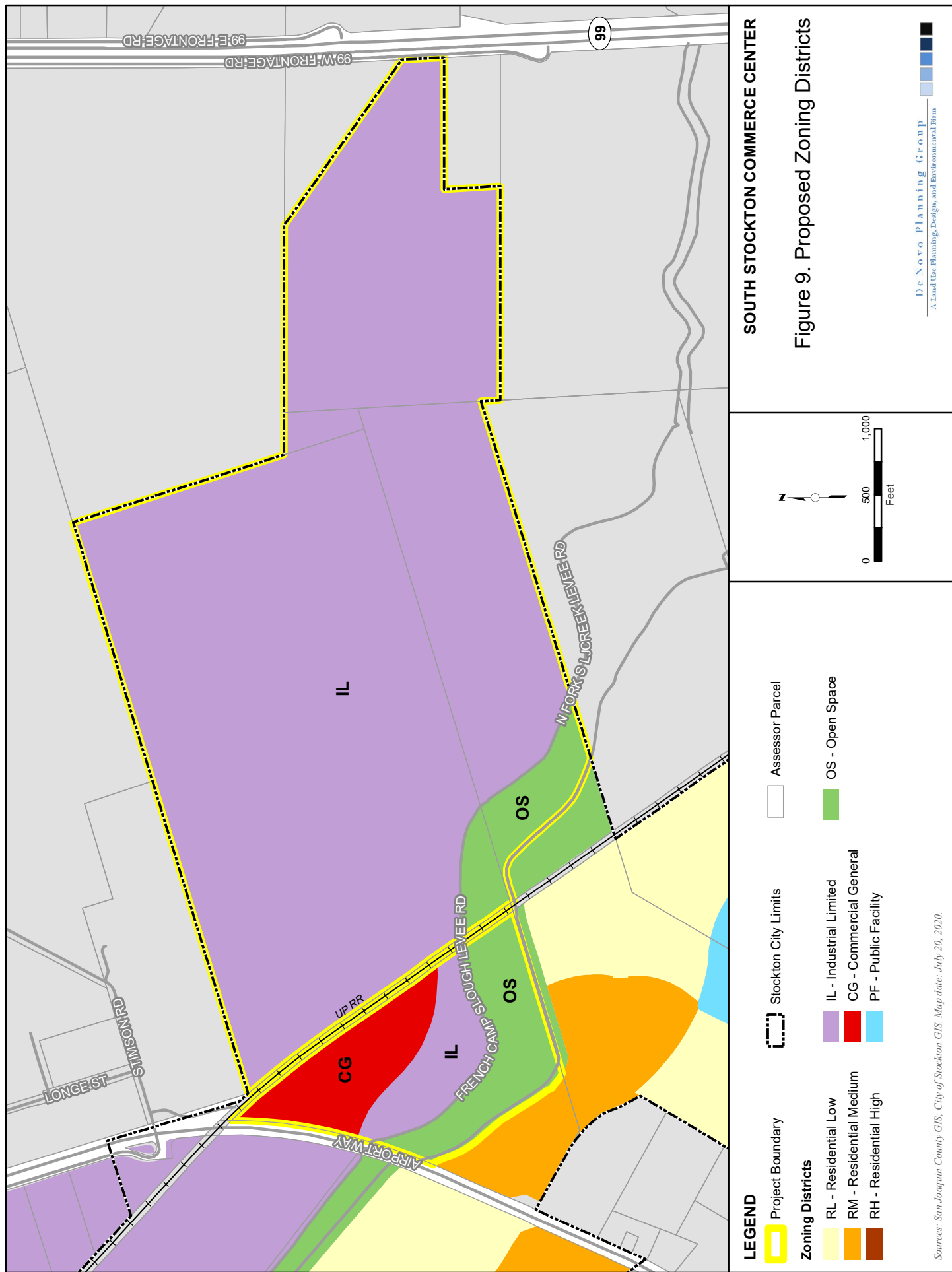
C - Commercial
 I - Industrial
 IN - Institutional
 OS/A - Open Space/Agriculture
 PR - Parks and Recreation



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Sources: San Joaquin County GIS; City of Stockton GIS. Map date: July 20, 2020.

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

X	Aesthetics	X	Agriculture and Forestry Resources	X	Air Quality
X	Biological Resources	X	Cultural Resources	X	Energy
X	Geology and Soils	X	Greenhouse Gas Emissions	X	Hazards and Hazardous Materials
X	Hydrology and Water Quality	X	Land Use and Planning		Mineral Resources
X	Noise	X	Population and Housing	X	Public Services
X	Recreation	X	Transportation	X	Tribal Cultural Resources
X	Utilities and Service Systems		Wildfire	X	Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
X	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

EVALUATION INSTRUCTIONS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a) The significance criteria or threshold, if any, used to evaluate each question; and
 - b) The mitigation measure identified, if any, to reduce the impact to less than significance

EVALUATION OF ENVIRONMENTAL IMPACTS

In each area of potential impact listed in this section, there are one or more questions which assess the degree of potential environmental effect. A response is provided to each question using one of the four impact evaluation criteria described below. A discussion of the response is also included.

- **Potentially Significant Impact.** This response is appropriate when there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries, upon completion of the Initial Study, an EIR is required.
- **Less than Significant With Mitigation Incorporated.** This response applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
- **Less than Significant Impact.** A less than significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary, although they may be recommended to further reduce a minor impact.
- **No Impact.** These issues were either identified as having no impact on the environment, or they are not relevant to the Project.

ENVIRONMENTAL CHECKLIST

This section of the Initial Study incorporates the most current Appendix "G" Environmental Checklist Form, contained in the CEQA Guidelines. Impact questions and responses are included in both tabular and narrative formats for each of the environmental topic areas.

I. AESTHETICS – EXCEPT AS PROVIDED IN PUBLIC RESOURCES CODE SECTION 21099, WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Have a substantial adverse effect on a scenic vista?	X			
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	X			
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	X			
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-d): It has been determined that the potential impacts on aesthetics caused by the proposed project will require a more detailed analysis in the EIR. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project will have a potentially significant impact on aesthetics. At this point, a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will provide a discussion of viewsheds, proximity to scenic roadways and scenic vistas, existing lighting standards, thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts on aesthetics. This section of the EIR will identify applicable General Plan policies that protect the visual values located along public roadways and surrounding land uses, and will also address the potential for the project to substantially degrade the visual character or quality of public views of the site and its surroundings. The analysis will address any proposed design and landscaping plans developed by the applicant and provide a narrative description of the anticipated changes to the visual characteristics of the project area as a result of project

implementation and the conversion of the existing on-site land uses. The analysis will also address potential impacts associated with light spillage onto adjacent properties during nighttime activities.

II. AGRICULTURE AND FORESTRY RESOURCES -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	X			
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526)?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a), e): It has been determined that the potential impacts on agricultural resources caused by the proposed project will require a more detailed analysis in the EIR. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project will have a potentially significant impact on agriculture resources. At this point, a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will describe the character of the region's agricultural lands, including maps of prime farmlands, other important farmland classifications, and protected farmland (including Williamson Act contracts). The County Agricultural Commissioner's Office and the State Department of Conservation will be consulted and their respective plans, policies, laws, and regulations affecting agricultural lands will be presented within the analysis.

The EIR will include thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to offset the loss of agricultural lands as a result of project implementation.

Responses b), c), d): The project site is not under a Williamson Act contract. There are no forest resources or zoning for forest lands located on the project site, or within the City of Stockton. This CEQA topic is not relevant to the proposed project and does not require further analysis.

III. AIR QUALITY -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Conflict with or obstruct implementation of the applicable air quality plan?	X			
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	X			
c) Expose sensitive receptors to substantial pollutant concentrations?	X			
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-d): Based on the current air quality conditions in the air basin it has been determined that the potential impacts on air quality caused by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact on air quality. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include an air quality analysis that presents the methodology, thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts on air quality. The project site is located within the jurisdiction of the SJVAPCD. The air quality analysis will include the following:

- Regional air quality and local air quality in the vicinity of the project site will be described. Meteorological conditions in the vicinity of the project site that could affect air pollutant dispersal or transport will be described. Applicable air quality regulatory framework, standards, and significance thresholds will be discussed.
- Short-term (i.e., construction) increases in regional criteria air pollutants will be quantitatively assessed. The ARB-approved CalEEMod computer model will be used to estimate regional mobile source and particulate matter emissions associated with the construction of the proposed project.
- Long-term (operational) increases in regional criteria air pollutants will be quantitatively assessed for area source, mobile sources, and stationary sources. The ARB-approved CalEEMod computer model will be used to estimate emissions

associated with the proposed project. Exposure to odorous or toxic air contaminants will be assessed through a screening method as recommended by the SJVAPCD.

- Local mobile-source CO concentrations will be assessed through a CO screening method as recommended by the SJVAPCD.
- A Health Risk Assessment (HRA) will be prepared to determine the potential public health risks from existing emissions from nearby rail and other toxic air sources, as well as the potential for the project to cause new public health risks from project-related traffic.

IV. BIOLOGICAL RESOURCES -- WOULD THE PROJECT:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	X			
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	X			
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	X			
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	X			
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	X			
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-f): Based on the documented special status species, sensitive natural communities, wetlands, and other biological resources in the region, it has been determined that the potential impacts on biological resources caused by the proposed project will require a detailed analysis. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact on biological resources. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will provide a summary of local biological resources, including descriptions and mapping of plant communities, the associated plant and wildlife species, and sensitive biological resources known to occur, or with the potential to occur in the project vicinity. The project site will be surveyed for wetlands and other waters that are regulated under federal and state law. The

analysis will conclude with a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented in order to reduce impacts on biological resources and to ensure compliance with the federal and state regulations.

V. CULTURAL RESOURCES -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	X			
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	X			
d) Disturb any human remains, including those interred outside of formal cemeteries?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-c): Based on known historical and archaeological resources in the region, and the potential for undocumented underground cultural resources in the region, it has been determined that the potential impacts on cultural resources caused by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine each of the three environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact on cultural resources. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include an overview of the prehistory and history of the area, the potential for surface and subsurface cultural resources to be found in the area, the types of cultural resources that may be expected to be found, a review of existing regulations and policies that protect cultural resources, an impact analysis, and mitigation that should be implemented in order to reduce potential impacts to cultural resources. In addition, the CEQA process will include a request to the Native American Heritage Commission for a list of local Native American groups that should be contacted relative to this project. The CEQA process will also include consultation with any Native American groups that have requested consultation with the City of Stockton.

VI. ENERGY -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	X			
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Based on the proposed project and anticipated uses, it has been determined that the potential impacts associated with energy resources will require a detailed analysis in the EIR. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact on energy. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include an evaluation of the energy consumption (e.g., electricity, oil, and natural gas) and provide a discussion of the potential energy impacts of the proposed project with particular emphasis on its potential to result in wasteful, inefficient, or unnecessary consumption of energy resources during construction and operation. An analysis of the project's potential to conflict with or obstruct a plan for renewable energy or energy efficiency will also be addressed.

VII. GEOLOGY AND SOILS -- WOULD THE PROJECT:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	X			
ii) Strong seismic ground shaking?	X			
iii) Seismic-related ground failure, including liquefaction?	X			
iv) Landslides?	X			
b) Result in substantial soil erosion or the loss of topsoil?	X			
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	X			
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	X			
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-d), f): It has been determined that the potential impacts from geology and soils will require a detailed analysis in the EIR. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact from geology and soils. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered **potentially significant** until a detailed analysis is prepared in the EIR.

The EIR will include a review of existing geotechnical reports, published documents, aerial photos, geologic maps and other geological and geotechnical literature pertaining to the site and surrounding area to aid in evaluating geologic resources and geologic hazards that may be present. The EIR will include a description of the applicable regulatory setting, a description of the existing geologic and soils conditions on and around the project site, an evaluation of geologic hazards, a description of the nature and general engineering characteristics of the subsurface conditions within the project site, and the provision of findings and potential mitigation strategies to address any geotechnical concerns or potential hazards. The potential for paleontological resources to occur with the area will also be assessed.

This section will provide an analysis including thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with geology and soils.

Response e): The proposed project would connect to the municipal sewer system for wastewater disposal. Septic tanks or septic systems are not proposed as part of the project. As such, this CEQA topic is not relevant to the proposed project and does not require further analysis.

VIII. GREENHOUSE GAS EMISSIONS -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	X			
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Implementation of the proposed project could generate greenhouse gases (GHGs) from a variety of sources, including but not limited to vehicle trips, vehicle idling, electricity consumption, water use, and solid waste generation. It has been determined that the potential impacts from greenhouse gas emissions by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact from greenhouse gas emissions. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include a greenhouse gas emissions analysis pursuant to the requirements of federal, state, regional and local laws and regulations. The analysis will follow the California Air Pollution Control Officers Association (CAPCOA) white paper methodology and recommendations presented in Climate Change & CEQA, which was prepared in coordination with the California Air Resources Board and the Governor's Office of Planning and Research as a common platform for public agencies to ensure that GHG emissions are appropriately considered and addressed under CEQA. This analysis will consider a regional approach toward determining whether GHG emissions are significant, and will present mitigation measures to reduce impacts. The discussion and analysis will include quantification of GHGs generated by the project as well as a qualitative discussion of the project's consistency with any applicable state and local plans to reduce the impacts of climate change.

The EIR will provide an analysis including the methodology, thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with greenhouse gas emissions.

IX. HAZARDS AND HAZARDOUS MATERIALS -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	X			
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	X			
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	X			
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	X			
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	X			
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	X			
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a-f): It has been determined that the potential impacts from hazards and/or hazardous materials by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact from hazards and/or hazardous materials. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include a review of existing environmental site assessments and any other relevant studies for the project site to obtain a historical record of environmental conditions. The environmental hazards evaluation will include a review of hazardous site databases. A site reconnaissance will be performed to observe the site and potential areas of interest. The potential

for project implementation to introduce hazardous materials to and from the area during construction and operation will be assessed. If environmental conditions are identified, mitigation measures, as applicable, will be identified to address the environmental conditions.

This section will provide an analysis including the methodology, thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with hazards and hazardous materials.

Response g): The project site and surrounding area are not located within an area identified as a fire hazard severity zone by the Fire Hazard Severity Zones Maps prepared by Cal Fire.² Further, the Envision Stockton 2040 General Plan states that risk of wildfire in the Planning Area is considered relatively low. This is a less than significant impact, and no additional analysis of this CEQA topic is warranted.

² Cal Fire, *Fire Hazard Severity Zone Maps*, <https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>, accessed July 7, 2020.

X. HYDROLOGY AND WATER QUALITY -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	X			
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	X			
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or offsite?	X			
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	X			
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	X			
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	X			
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-e): It has been determined that the potential impacts on hydrology and water quality caused by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine each of the potentially significant environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact on hydrology and water quality. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will present the existing FEMA flood zones, levee protection improvements, reclamation districts, and risk of flooding on the project site and general vicinity. The applicable reclamation district will be consulted during the preparation of the EIR. The Project drainage study/calculations and proposed improvement plans will be reviewed and the onsite hydrology

and hydraulic calculations for existing and proposed conditions will be summarized. Some of the specific items to be reviewed include: land use classification; acreage calculations; runoff coefficients; time of concentration; and methodology. Calculations will be reviewed for reasonableness and consistency with the site plan and with the City's master plans.

The EIR will evaluate the potential construction and operational impacts of the proposed project on water quality. This section will describe the surface drainage patterns of the project area and adjoining areas, and identify surface water quality in the project area based on existing and available data. This section will identify 303D listed impaired water bodies in the vicinity of the project site. Conformity of the proposed project to water quality regulations will also be discussed. Mitigation measures will be developed to incorporate Best Management Practices (BMPs), consistent with the requirements of the Central Valley Regional Water Quality Control Board (CVRWQCB) to reduce the potential for site runoff.

This section will provide an analysis including the methodology, thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with hydrology and water quality.

XI. LAND USE AND PLANNING -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Physically divide an established community?	X			
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	X			

RESPONSES TO CHECKLIST QUESTIONS

Response a-b): It has been determined that the potential land use and planning impacts caused by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine each of these environmental issues in the EIR and will decide whether the proposed project has the potential to have a significant impact. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include a detailed discussion of the project entitlements as it relates to the existing General Plan, Zoning Code, and other local regulations. The local, regional, state, and federal jurisdictions potentially affected by the project will be identified, as well as their respective plans, policies, laws, and regulations, and potentially sensitive land uses. The proposed project will be evaluated for consistency the City of Stockton General Plan, the Zoning Ordinance, the Airport Land Use Compatibility Plan (ALUCP) for Environs of Stockton Metropolitan Airport (2018), the San Joaquin County's Aviation System – Airport Land Use Compatibility Plan (2018), and other local planning documents. Planned development and land use trends in the region will be identified based on currently available plans. Reasonably foreseeable future development projects within the region will be noted, and the potential land use impacts associated with the project will be presented.

This section will provide an analysis including the thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to ensure consistency with the existing and planned land uses.

XII. MINERAL RESOURCES -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X	
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a), b): According to the 2040 General Plan Update and Utility Master Plan Supplements Environmental Impact Report prepared for the Envision Stockton 2040 General Plan, the Plan Area, including the project site, has been classified as a MRZ-1 zone, signifying that it is in an area where the California Geological Survey (CGS) has determined that little likelihood exists for the presence of mineral resources. Given this finding, the likelihood that implementation of the proposed project would result in the loss of availability of a known valuable mineral resource or the loss of availability of a locally important mineral resource recovery site is considered low. Additionally, impacts to mineral resources as a result of General Plan buildout (including development of the Project site with Industrial uses) were analyzed in the General Plan EIR. For these reasons, the impacts related to mineral resources would be less than significant and no additional analysis of this CEQA topic is warranted.

XIII. NOISE -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	X			
b) Generation of excessive groundborne vibration or groundborne noise levels?	X			
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-c): Based on existing and projected noise levels along roadways and adjacent rail lines, and the potential for noise generated during project construction and operational activities, it has been determined that the potential impacts from noise caused by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine each of the potentially significant environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact from noise. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include a noise study. The noise study will identify the noise level standards contained in the City of Stockton General Plan Noise Element which are applicable to this project, as well as any state and federal standards. The EIR will address the existing noise environment (including the UPRR activities), and an analysis of stationary noise generated by the project, including proposed loading docks, parking lots, and any proposed mechanical equipment. The EIR will also analyze mobile noise generated by the project, including on-site truck circulation, traffic noise, and rail noise (as the proposed project would include extension of the railroad spur line east from the UPRR along the Project site's northern edge providing rail access to the parcels). Noise and vibration impacts associated with construction of the project at existing sensitive receptors in the project vicinity will also be addressed. The study will present appropriate and practical recommendations for noise control aimed at reducing any noise impacts.

The EIR will include thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with noise.

XIV. POPULATION AND HOUSING -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	X			
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a): It has been determined that the potential population and housing impacts caused by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine the potentially significant environmental issue listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact. At this point a definitive impact conclusion for the environmental topic will not be made, rather it is considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include a detailed discussion of existing population and housing trends within the city. Relevant policies related to the location and intensity of housing development and population growth will be summarized and addressed. The proposed project characteristics, including the potential to induce substantial unplanned population growth, both directly and indirectly, will be analyzed. The proposed project will be evaluated for consistency the City of Stockton General Plan, the Zoning Ordinance, and other local planning documents as they pertain to planned growth and development.

This section will provide an analysis including the thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to ensure population and housing consistency with the existing and planned land uses.

Response b): The project site is currently undeveloped and does not contain any existing housing that would be displaced. Development of the site, as proposed, would not displace substantial numbers of existing people or housing. No impact would occur and no additional analysis of this CEQA topic is warranted.

XV. PUBLIC SERVICES:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	X			
ii) Police protection?	X			
iii) Schools?	X			
iv) Parks?	X			
v) Other public facilities?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a) i- v: Implementation of the proposed project would result in increased demand for police, fire protection, schools, parks, and other public facilities in the area. It has been determined that the potential impacts from increased demands on public services caused by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact on public services. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

During the preparation of the EIR, the public service providers will be consulted in order to determine existing service levels in the project areas. This would include documentation regarding existing staff levels, equipment and facilities, current service capacity, existing service boundaries, and planned service expansions. Master plans from such public service providers and City policies, programs, and standards associated with the provision of public services will be presented in the EIR.

The EIR will provide an analysis including the thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented reduce impacts associated with public services.

XVI. RECREATION -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	X			
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	X			

RESPONSES TO CHECKLIST QUESTIONS

Response a), b): Implementation of the proposed project could result in increased demand for parks, and other recreational facilities in the area. It has been determined that the potential impacts from increased demands to recreation facilities caused by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine each of these environmental issues listed in the checklist above in the EIR, and will decide whether the proposed project has the potential to have a significant impact on recreational facilities. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

During the preparation of the EIR, the recreational facilities and services will be analyzed to determine existing service levels in the project areas. This would include documentation regarding existing and future facility needs, current service capacity, and planned service expansions. City policies, programs, and standards associated with the provision of public services will be presented in the EIR.

The EIR will provide an analysis including the thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented reduce impacts associated with public services.

XVII. TRANSPORTATION -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	X			
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	X			
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	X			
d) Result in inadequate emergency access?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-d): The proposed project includes the development of uses that will involve new trips on existing and planned roadways within the area, requiring a detailed analysis in the EIR. As such, the EIR will examine each of the environmental issues listed in the checklist above in the EIR and will determine whether the proposed project has the potential to have a significant transportation impact. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is conducted in the EIR.

The potential transportation impacts will be analyzed using methods outlined in the City of Stockton Guidelines for Transportation Impact Studies. The EIR will describe existing and future transportation conditions and will analyze any potential conflicts with programs, plans, ordinances or policies addressing the circulation system. Potential impacts associated with site access, and on-site circulation will also be addressed in the EIR. A detailed vehicle miles traveled (VMT) analysis will be conducted to determine if the project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). The VMT analysis would be completed consistent with the Office of Planning and Research's (OPR's) Technical Advisory on Evaluating Transportation Impacts in CEQA.

The project proposes a west-east trending primary road that will provide access to Airport Way to the west and the 99 Frontage Road to the east. A grade separated crossing over the Union Pacific railroad right of way will be constructed to accommodate the primary access road and avoid conflicts with the rail line. Additionally, potential improvements will be reviewed to determine intersection geometrics required to serve all modes of travel. The potential for the project to substantially increase hazards due to a geometric design feature will be analyzed as part of the EIR.

Impacts to the bicycle, pedestrian, rail, and transit facilities and services will be also evaluated, including planned regional bicycle connections and the need for enhanced transit service and

transit stops in coordination with the San Joaquin Regional Transit District. Significant impacts will be identified in accordance with the established criteria. Mitigation measures will be identified to lessen the significance of impacts where feasible.

The EIR will provide an analysis including the thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented reduce impacts associated with transportation.

XVIII. TRIBAL CULTURAL RESOURCES

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	X			
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Based on known tribal cultural resources in the region, and the potential for undocumented underground tribal cultural resources in the region, it has been determined that the potential impacts on tribal cultural resources caused by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact on tribal cultural resources. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include an overview of the prehistory and history of the area, the potential for surface and subsurface tribal cultural resources to be found in the area, the types of tribal cultural resources that may be expected to be found, a review of existing regulations and policies that protect cultural resources, an impact analysis, and mitigation that should be implemented in order to reduce potential impacts to tribal cultural resources. In addition, the CEQA process will include a request to the Native American Heritage Commission for a list of local Native American groups that should be contacted relative to this project. Pursuant to AB 52 and SB 18, the CEQA process will also include consultation with any Native American groups that have requested consultation with the City of Stockton.

XIX. UTILITIES AND SERVICE SYSTEMS -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	X			
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple years?	X			
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?	X			
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	X			
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-e): Implementation of the proposed project would result in increased demands for utilities to serve the project. As such, the EIR will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact to utilities and service systems. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will analyze wastewater, water, and storm drainage infrastructure, as well as other utilities (i.e. solid waste, gas, electric, etc.), that are needed to serve the proposed project. The wastewater assessment will include a discussion of the proposed collection and conveyance system, treatment methods and capacity at the treatment plants, disposal location(s) and methods, and the potential for recycled water use for irrigation. The EIR will analyze the impacts associated with on-site and off-site construction of the conveyance system, including temporary impacts associated with the construction phase. The proposed infrastructure will be presented. This will likely include a system of gravity pipes, pump station(s), and a forcemain(s). The EIR will provide a discussion of the wastewater treatment plants that are within proximity to the project site, including current demand and capacity at these plants. The analysis will discuss the disposal methods and location, including environmental impacts and permit requirements associated with disposal of treated wastewater.

The storm drainage assessment will include a discussion of the proposed drainage collection system including impacts associated with on-site and off-site construction of the storm drainage system. The EIR will identify permit requirements and mitigation needed to minimize and/or avoid impacts. The EIR will include an assessment for consistency with City Master Storm Drain Plan.

The EIR will analyze the impacts associated with on-site and off-site construction of the water system, including temporary impacts associated with the construction phase. The EIR will also identify permit requirements and mitigation needed to minimize and/or avoid impacts, and will present the proposed infrastructure as provided by the project site engineering reports. A Water Supply Assessment will be required for the project to assess the availability of water supplies to serve the project.

The EIR will also address solid waste collection and disposal services for the proposed project. This will include an assessment of the existing capacity and project demands. The assessment will identify whether there is sufficient capacity to meet the project demands.

The EIR will provide thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with utilities and service systems.

XX. WILDFIRE – IF LOCATED IN OR NEAR STATE RESPONSIBILITY AREAS OR LANDS CLASSIFIED AS VERY HIGH FIRE HAZARD SEVERITY ZONES, WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff post-fire slope instability, or drainage changes?				X

RESPONSES TO CHECKLIST QUESTIONS

Responses a-d): The project site and surrounding area are not located in or near state responsibility areas or lands classified as very high fire hazard severity zones.³ This CEQA topic is not relevant to the proposed project and does not require further analysis.

³ Cal Fire, *Fire Hazard Severity Zone Maps*, <https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>, accessed July 7, 2020.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	X			
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	X			
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-c): It has been determined that the potential for the proposed project to: degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; reduce the number or restrict the range of a rare or endangered plant or animal; eliminate important examples of the major periods of California history or prehistory; create cumulatively considerable impacts; or adversely affect human beings will require more detailed analysis in an EIR. As such, the EIR will examine each of these environmental issues in the EIR and will decide whether the proposed project has the potential to have a significant impact on these environmental issues. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

REPORT PREPARERS

This document was prepared by De Novo Planning Group, Inc. of El Dorado Hills under the direction of the City of Stockton. De Novo Planning Group staff participating in document preparation included the following:

- Steve McMurtry, Principal Planner
- Starla Barker, AICP, Principal Planner

REFERENCES

Cal Fire. Fire Hazard Severity Zones Maps. <https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>.

City of Stockton. Envision Stockton 2040 General Plan Update. Adopted December 4, 2018.

City of Stockton. Envision Stockton 2040 General Plan Update and Utility Master Plan Supplements Final EIR. Certified December 4, 2018.

City of Stockton. Legislation Text. Consideration of a Zoning Map Amendment for Approximately 391.23 acres located south of Arch Airport-Sperry Road between Tidewater Southern Railroad Track and French Camp Road (APN 177-050-05, 09, 25 and 177-100-07 and 35) Application No. P18-0046, Tidewater Crossing Project, April 4, 2019.

City of Stockton. Stockton Municipal Code, Charter, and Civil Service Rules. Current through 2020-06-09-1501 C.S. and the July 2020 code supplement.

City of Stockton. Zoning District Map. Last Revision June 29, 2020.

LSA. Environmental Impact Report Tidewater Crossing (SCH# 2005122101), certified October 28, 2008.

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10/20/2020

Nicole D. Moore
City of Stockton
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State Clearinghouse
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CEQA Project #: SCH **2020090561**
Document Type: Initial Study/Positive Declaration
Project Lead Agency: City of Stockton
Project Title: South Stockton Commerce Center Project

The California Geologic Energy Management Division (CalGEM) oversees the drilling, operation, maintenance, and plugging and abandonment of oil, natural gas, and geothermal wells. Our regulatory program emphasizes the wise development of oil, natural gas, and geothermal resources in the state through sound engineering practices that protect the environment, prevent pollution, and ensure public safety. Northern California is known for its rich gas fields. CalGEM staff have reviewed the documents depicting the proposed project.

The proposed project is a Site Approval application to develop approximately 437-acres of land which will include: industrial, commercial, open space, public facilities, and public roadway right-of-way land uses.

The attached maps show the location of two gas wells that are plugged and abandoned. The first well is the Reynolds and Carver “Nielsen” 1 (API 0407720021), drilled and abandoned in 1967. The second well is the Westates Expl. Co. “Nielsen” 1 (API 0407720098), drilled and abandoned in 1969. Based on the project map submitted, the wells are within the construction area. No other wells impact or are impacted by the proposed work. Note that the Division has not verified the actual location of the well.

The Reynolds and Carver “Nielsen” 1 (API 0407720021) well may not be abandoned to standard. The hydrocarbon zone plug appears to be too shallow, and there is no base of fresh water plug at 800’ (This is only a preliminary estimate of the base of fresh water and is subject to change). The shoe plug and surface plug are placed correctly.

The Westates Expl. Co. “Nielsen” 1 (API 0407720098) well appears to be abandoned to standard. The hydrocarbon zone plug is placed correctly. The shoe plug coincides with

the base of fresh water zone and is placed correctly (Please note this is based off of a preliminary estimate of base of fresh water at 800'. A better estimate of the base of fresh water may change the abandoned standard of this well). The surface plug is placed correctly.

For future reference, you can review wells located on private and public land at CalGEM's website: <https://maps.conservation.ca.gov/doggr/wellfinder/#close>

The local permitting agencies and property owner should be aware of, and fully understand, that significant and potentially dangerous issues may be associated with development near oil and gas wells. These issues are non-exhaustively identified in the following comments and are provided by CalGEM for consideration by the local permitting agency, in conjunction with the property owner and/or developer, on a parcel-by-parcel or well-by-well basis. As stated above, CalGEM provides the above well review information solely to facilitate decisions made by the local permitting agency regarding potential development near a gas well.

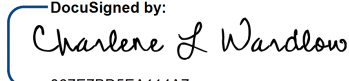
1. It is recommended that access to a well located on the property be maintained in the event abandonment of the well becomes necessary in the future. Impeding access to a well could result in the need to remove any structure or obstacle that prevents or impedes access. This includes, but is not limited to, buildings, housing, fencing, landscaping, trees, pools, patios, sidewalks, and decking.
2. Nothing guarantees that a well abandoned to current standards will not start leaking oil, gas, and/or water in the future. It always remains a possibility that any well may start to leak oil, gas, and/or water after abandonment, no matter how thoroughly the well was plugged and abandoned. CalGEM acknowledges that wells abandoned to current standards have a lower probability of leaking oil, gas, and/or water in the future, but makes no guarantees as to the adequacy of this well's abandonment or the potential need for future re-abandonment.
3. Based on comments **1** and **2** above, CalGEM makes the following general recommendations:
 - a. Maintain physical access to any gas well encountered.
 - b. Ensure that the abandonment of gas well(s) is to current standards.If the local permitting agency, property owner, and/or developer chooses not to follow recommendation "**b**" for a well located on the development site property, CalGEM believes that the importance of following recommendation "**a**" for the well located on the subject property increases. If recommendation "**a**" cannot be followed for the well located on the subject property, then CalGEM advises the local permitting agency, property owner, and/or developer to consider any and all alternatives to proposed construction or development on the site (see comment **4** below).
4. Sections 3208 and 3255(a)(3) of the Public Resources Code give CalGEM the authority to order the abandonment or re-abandonment of any well that is hazardous, or that poses a danger to life, health, or natural resources.

Responsibility for abandonment and or re-abandonment costs for any well may be affected by the choices made by the local permitting agency, property owner, and/or developer in considering the general recommendations set forth in this letter. (Cal. Public Res. Code, § 3208.1.)

5. Maintaining sufficient access to a gas well may be generally described as maintaining "rig access" to the well. Rig access allows a well servicing rig and associated necessary equipment to reach the well from a public street or access way, solely over the parcel on which the well is located. A well servicing rig, and any necessary equipment, should be able to pass unimpeded along and over the route, and should be able to access the well without disturbing the integrity of surrounding infrastructure.
6. If, during development of this proposed project, any unknown well(s) is/are discovered, CalGEM should be notified immediately so that the newly-discovered well(s) can be incorporated into the records and investigated. CalGEM recommends that any well(s) found in the course of this project, and any pertinent information obtained after the issuance of this letter, be communicated to the appropriate county recorder for inclusion in the title information of the subject real property. This is to ensure that present and future property owners are aware of (1) the well(s) located on the property, and (2) potentially significant issues associated with any improvements near oil or gas wells.

No well work may be performed on any oil or gas well without written approval from CalGEM in the form of an appropriate permit. This includes, but is not limited to, mitigating leaking fluids or gas from abandoned wells, modifications to well casings, and/or any other re-abandonment work. (NOTE: CalGEM regulates the depth of any well below final grade (depth below the surface of the ground). Title 14, Section 1723.5 of the California Code of Regulations states that all well casings shall be cut off at least 5 feet but no more than 10 feet below grade. If any well needs to be lowered or raised (i.e. casing cut down or casing riser added) to meet this grade regulation, a permit from CalGEM is required before work can start.)

Sincerely,

DocuSigned by:

067E7BD5EA114A7...
Charlene L Wardlow
Northern District Deputy

cc: Jan Perez

Jan.Perez@conservation.ca.gov

Nicole D. Moore

Nicole.Moore@stocktonca.gov



OCTOBER 13, 2020

VIA EMAIL: NICOLE.MOORE@STOCKTONCA.GOV

Nicole Moore, Acting Current Planning Manager
City of Stockton
345 N. El Dorado Street
Stockton, CA 95202

Dear Ms. Moore:

INITIAL STUDY AND NOTICE OF PREPARATION FOR THE SOUTH STOCKTON COMMERCE
CENTER PROJECT, SCH# 2020090561

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Initial Study and Notice of Preparation for the South Stockton Commerce Center Project (Project). The Division monitors farmland conversion on a statewide basis, provides technical assistance regarding the Williamson Act, and administers various agricultural land conservation programs. We offer the following comments and recommendations with respect to the project's potential impacts on agricultural land and resources.

Project Description

The Project proposes to develop in multiple phases, a planned industrial type project that will attract businesses to the City of Stockton and provide for local employment opportunities. The project includes a Tentative Map for the 437.45-acre site to create 13 development lots, two basin lots, one park lot, one open space lot, and one sewer pump station lot. Development includes approximately 300 acres for industrial uses (building and parking areas); approximately 41 acres for public facilities (storm basins and pump stations); and approximately 54 acres of open space (park area and avoidance of French Camp Slough). The project site is currently designated as Prime Farmland, and Farmland of Statewide Importance by the Department of Conservation's Farmland Mapping and Monitoring Program.¹

¹ California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, <https://maps.conservation.ca.gov/DLRP/CIFF/>

Department Comments

Although conversion of agricultural land is often an unavoidable impact under CEQA analysis, feasible alternatives and/or feasible mitigation measures must be considered. In some cases, the argument is made that mitigation cannot reduce impacts to below the level of significance because agricultural land will still be converted by the project, and therefore, mitigation is not required. However, reduction to a level below significance is not a criterion for mitigation under CEQA. Rather, the criterion is feasible mitigation that lessens a project's impacts. As stated in CEQA statute, mitigation may also include, "Compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements."²

The conversion of agricultural land represents a permanent reduction in the State's agricultural land resources. As such, the Department advises the use of permanent agricultural conservation easements on land of at least equal quality and size as partial compensation for the loss of agricultural land. Conservation easements are an available mitigation tool and considered a standard practice in many areas of the State. The Department highlights conservation easements because of their acceptance and use by lead agencies as an appropriate mitigation measure under CEQA and because it follows an established rationale similar to that of wildlife habitat mitigation.

Mitigation via agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional, or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The conversion of agricultural land should be deemed an impact of at least regional significance. Hence, the search for replacement lands should not be limited strictly to lands within the project's surrounding area.

A source that has proven helpful for regional and statewide agricultural mitigation banks is the California Council of Land Trusts. They provide helpful insight into farmland mitigation policies and implementation strategies, including a guidebook with model policies and a model local ordinance. The guidebook can be found at:

<http://www.calandtrusts.org/resources/conserving-californias-harvest/>

Of course, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered.

² Public Resources Code Section 15370, Association of Environmental Professionals, 2020 CEQA, California Environmental Quality Act, Statute & Guidelines, page 284, https://www.califaep.org/docs/2020_ceqa_book.pdf

Conclusion

The Department recommends further discussion of the following issues:

- Type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the proposed project.
- Impacts on any current and future agricultural operations in the vicinity; e.g., land-use conflicts, increases in land values and taxes, loss of agricultural support infrastructure such as processing facilities, etc.
- Incremental impacts leading to cumulative impacts on agricultural land. This would include impacts from the proposed project, as well as impacts from past, current, and likely future projects.
- Proposed mitigation measures for all impacted agricultural lands within the proposed project area.

Thank you for giving us the opportunity to comment on the Initial Study and Notice of Preparation for the South Stockton Commerce Center Project. Please provide this Department with notices of any future hearing dates as well as any staff reports pertaining to this project. If you have any questions regarding our comments, please contact Farl Grundy, Associate Environmental Planner via email at Farl.Grundy@conservation.ca.gov.

Sincerely,



Monique Wilber

Conservation Program Support Supervisor



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November 24, 2020

Nicole D. Moore
Acting Current Planning Manager
City of Stockton
345 N. El Dorado Street
Stockton, CA 95202

RE: Notice of Preparation for the South Stockton Commerce Center Project
(SCH # 2020090561)

Dear Ms. Moore:

Thank you for the opportunity to provide comments on the City of Stockton's Notice of Preparation (NOP) for the South Stockton Commerce Center (Project). The NOP and Initial Study detail that the Project will create an expansive industrial zone, with six million square feet of approved industrial land uses. The City seeks comments regarding environmental concerns from the implementation of the proposed Project. Given the Project's setting near a community of color that already suffers some of the worst pollution in the State, we submit these comments for the City's consideration as it prepares the draft environmental impact report (EIR).¹

I. THE PROJECT SITE IS LOCATED IN ONE OF THE MOST POLLUTED AREAS OF THE STATE.

The Project will create a Tentative Map that allows for construction of up to 6,091,551 square feet of industrial uses—equivalent to more than 105 football fields—on approximately 437 acres of vacant and agricultural land. Thousands of parking spaces will be created for the thousands of diesel trucks and passenger vehicles that will travel to and from these buildings once constructed. A Site Plan is not currently proposed for the Project, so more specific information on the extent of the development and its impacts is unavailable at this time.

The surrounding area already deals with one of the highest pollution burdens in California and the Project will further exacerbate this pollution without adequate mitigation.

¹ The Attorney General submits these comments pursuant to his independent power and duty to protect the environment and natural resources of the State. (*See* Cal. Const., art. V, § 13; Gov. Code, §§ 12511, 12600–12; *D'Amico v. Bd. of Medical Examiners* (1974) 11 Cal.3d 1, 14–15.)

Northeast of the Project site is the San Joaquin County Regional Sports Complex, which includes a four-field softball complex, four soccer fields, concession stands, and picnic areas.² To the west of the Project site is the unincorporated community of French Camp, which includes rural homes, an elementary school,³ San Joaquin General Hospital, and several places of worship. According to the 2018 American Community Survey, French Camp has a population of 3,857, of which 60% identify as Latinx.⁴

This community already is exposed to significant pollution in the surrounding area, including highways, railroad tracks, an airport, and agriculture. According to CalEnviroScreen 3.0, CalEPA's screening tool that ranks each census tract in the state for pollution and vulnerability, the Project's census tract ranks worse than 100 percent of the rest of the state for pollution burden.⁵ This census tract is in the 82nd percentile for particulate matter pollution and in the top ten percent for exposure to pesticides, solid wastes, impaired water, drinking water, and groundwater threats.

The San Joaquin Valley region fails to meet federal and state attainment standards for ozone and PM_{2.5}.⁶ The larger Stockton region is home to many disadvantaged census tracts and includes a community recently designated by the California Air Resources Board (CARB) for its Community Air Protection Program under Assembly Bill 617.⁷ The AB 617 community is approximately 2.5 miles from the Project and this broader community will experience the negative impacts of air pollution caused by this large industrial development. If adequate mitigation is not implemented, the Project will contribute to the significant air pollution burdens that local communities already bear.

² Regional Sports Complex, San Joaquin Valley Parks, *available at* <http://www.sjpark.com/parks/regional-sports-complex.aspx> (last visited November 9, 2020).

³ French Camp School teaches kindergarten through eighth grade and has 612 students, of whom 92% are students of color. National Center for Educational Statistics, *available at* https://nces.ed.gov/ccd/schoolsearch/school_detail.asp (last visited November 9, 2020).

⁴ 2018 American Community Survey, *available at* <https://data.census.gov/cedsci/table?q=french%20camp,%20california&tid=ACSDP5Y2018.DP05&hidePreview=false> (last visited November 9, 2020).

⁵ CalEPA, *CalEnviroScreen 3.0*, <https://oehha.ca.gov/calenviroscreen> (last visited November 9, 2020).

⁶ San Joaquin Valley Air Pollution Control District, *Ambient Air Quality Standards & Valley Attainment Status*, <https://valleyair.org/aqinfo/attainment.htm> (last visited November 9, 2020).

⁷ California Air Resources Board, Community Air Protection Program, 2019 Community Recommendations Staff Report, November 2019, *available at* https://ww2.arb.ca.gov/sites/default/files/2019-12/2019_community_recommendations_staff_report_november_8_acc_3.pdf (last visited November 9, 2020). *See also* San Joaquin Valley Air Pollution Control District Website, <http://community.valleyair.org/selected-communities/stockton/> (last visited November 9, 2020).

II. THE CITY MUST COMPREHENSIVELY EVALUATE THE PROJECT'S ENVIRONMENTAL IMPACTS, INCLUDING CUMULATIVE IMPACTS.

The purpose of CEQA is to ensure that a lead agency fully evaluates, discloses, and, whenever feasible, mitigates a project's significant environmental effects.⁸ An EIR serves as an "informational document" that informs the public and decisionmakers of the significant environmental effects of a project and ways in which those effects can be minimized.⁹ CEQA requires an EIR to include "enough detail 'to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.'"¹⁰ In the context of air quality analysis, an EIR must "make[] a reasonable effort to substantively connect a project's air quality impacts to likely health consequences."¹¹

Industrial developments of this size typically involve significant air quality impacts from diesel trucks and passenger vehicles. Where the development includes refrigerated uses, these air quality impacts are even greater. Cold storage warehouses require diesel trucks with transport refrigeration units (TRUs), which emit significantly higher levels of toxic diesel particulate matter (PM), nitrogen oxides (NOx), and greenhouse gas emissions than trucks without TRUs. In an area where air pollution burden already high, the increase in air pollutant emissions caused by construction and facility operations will be substantial.

The City's EIR should analyze the full environmental impacts of the Project, which will add a considerable number of diesel truck trips, and their attendant air pollution, to this already overburdened area. That includes the Project's impact on the sensitive receptors, including the nearby sports park and unincorporated community. The area is a non-attainment area for ozone and particulate matter and Project operations will increase emissions of those pollutants.

The City also must sufficiently relate pollutant data to specific adverse human health effects in the Project's EIR. In *Friant Ranch*, the California Supreme Court found a project's air quality impact analysis to be inadequate under CEQA because its "general description of symptoms that are associated with exposure" "fail[ed] to indicate the concentrations at which such pollutants would trigger the identified symptoms" and did not provide the public with an "idea of the health consequences that result when more pollutants are added to a nonattainment basin."¹² The Project's EIR can avoid this problem by detailing the existing conditions and projecting the impact that additional pollution will have on the community.

⁸ Pub. Resources Code, §§ 21000–21002.1.

⁹ CEQA Guidelines, § 15121, subd. (a).

¹⁰ *Sierra Club v. County of Fresno [Friant Ranch]* (2018) 6 Cal.5th 502, 516.

¹¹ *Ibid.* at p. 510.

¹² *Ibid.* at p. 519.

For instance, studies have shown that increases in near-roadway air pollution are associated with reduced lung function in non-asthmatic children.¹³ Exposure may be particularly harmful during the first year of life, resulting in decreased lung function into adolescence.¹⁴ Increased NO_x emissions are also associated with an increased risk of developing asthma.¹⁵ Human health is not the only potential impact from Project-generated air emissions. Chronic exposure to air pollution may negatively influence children's cognitive processing and memory.¹⁶ Since the Project is expected to increase truck traffic near the county's sports complex, the EIR should be particularly careful to account for the Project's cumulative impacts on children.

III. THE CITY SHOULD CONSIDER ALL FEASIBLE MEASURES TO MITIGATE SIGNIFICANT PROJECT IMPACTS

CEQA requires a lead agency to adopt all feasible mitigation measures that minimize the significant environmental impacts of a project.¹⁷ The lead agency is expected to develop mitigation in an open public process,¹⁸ and mitigation measures must be fully enforceable and nondeferrable.¹⁹ To the extent the EIR determines the Project will have significant environmental impacts—especially any affecting sensitive receptors—the City should consider robust mitigation measures to avoid or limit those impacts.

For example, possible air quality mitigation measures²⁰ could include:

¹³ Urman, et al., *Associations of Children's Lung Function with Ambient Air Pollution: Joint Effects of Regional and Near-Roadway Pollutants* (2014) 69 *Thorax* 540, 546; Chen, et al., *Chronic Effects of Air Pollution On Respiratory Health in Southern California Children: Findings from The Southern California Children's Health Study* (2015) 7 *Journal of Thoracic Disease* 46, 49.

¹⁴ Schultz, et al., *Early-Life Exposure to Traffic-Related Air Pollution and Lung Function in Adolescence* (2016) 193 *American Journal of Respiratory and Critical Care Medicine* 171, 174–75; Usemann, et al., *Exposure to Moderate Air Pollution and Associations with Lung Function at School-Age: A Birth Cohort Study* (2019) 126 *Environment International* 682, 688.

¹⁵ Gauderman, et. al., *Childhood Asthma And Exposure To Traffic And Nitrogen Dioxide* (2005) 16 *Epidemiology* 737, 742; Nishimura, et al., *Early-Life Air Pollution and Asthma Risk in Minority Children. The GALA II and SAGE II Studies* (2013) 188 *American Journal of Respiratory and Critical Care Medicine* 309, 312.

¹⁶ Grineski, et al., *Hazardous Air Pollutants Are Associated With Worse Performance In Reading, Math, And Science Among US Primary Schoolchildren* (2019) *Environmental Research* 108925.

¹⁷ Pub. Resources Code, § 21100, subd. (b)(3).

¹⁸ *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 93.

¹⁹ CEQA Guidelines, § 15126.4

²⁰ For more in-depth information about potential air quality mitigation measures near high volume roadways, see CARB's Technical Advisory on the topic and, more generally, the CARB

- Establishing and enforcing truck routes that avoid sensitive receptors;
- Limiting operation and construction days and times;
- Requiring the use of zero-emission or all-electric, plug-in capable TRUs for warehouses with cold storage capability;
- Establishing fleet requirements for warehouse tenants and carriers serving tenants, such as requiring the exclusive use of zero-emission delivery trucks and vans and requiring any Class 8 trucks entering the site use zero-emissions technology or meet CARB's lowest optional NO_x emissions standard;
- Requiring installation of indoor air filtration and climate control at the warehouse to reduce-impacts on workers;
- Requiring electric vehicle charging infrastructure for both cars and trucks necessary to support zero-emission vehicles and equipment on site;
- Requiring all trucks and trailers entering the site be in compliance with all current air quality regulations;
- Requiring and enforcing no idling policies;
- Requiring the use of electric-powered yard equipment onsite;
- Requiring that all construction equipment meet Tier 4 emission standards;
- Constructing new or improved transit stops, sidewalks, bicycle lanes, crosswalks, and traffic control or traffic safety measures, such as speed bumps or speed limits;
- Improving vegetation and tree canopy in and around the Project site;
- Requiring methods to reduce employee vehicle traffic, such as van shuttles, transit and carpool incentives, and bicycle parking and facilities for employees;
- Requiring installation of solar panels with backup energy storage on each building roof area with a capacity that matches the maximum allowed for distributed solar connections to the grid;
- Adhering to California green building standards; and
- Constructing the warehouse to meet Leadership in Energy and Environmental Design standards.

Mitigation measures like these have been adopted by similar projects throughout California. The Attorney General's Office would be happy to provide any assistance it can as the City considers how best to mitigate the Project's environmental impacts.

IV. CONCLUSION

This Project's EIR affords the City the opportunity to serve its constituents by transparently evaluating, disclosing, and mitigating the environmental impacts of this proposed Project. When implemented well, CEQA builds public trust and promotes sustainable development that will serve the local community for years to come. The Project will result in a large expansion of industrial uses in southern Stockton, along with those uses' environmental impacts. In drafting the EIR, we urge the City to evaluate the Project's impacts

Handbook, which offers more mitigation ideas. Both are available at <https://www.arb.ca.gov/ch/landuse.htm>. The mitigation measures included here are focused on air quality; however, additional mitigation measures may be necessary for traffic, noise, or other significant impacts.

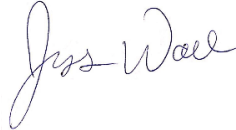
November 24, 2020

Page 6

comprehensively, particularly those affecting the many nearby sensitive receptors. CEQA requires full disclosure and mitigation of significant environmental impacts prior to project approval.

Please do not hesitate to contact me if you have any questions or would like to discuss these issues further.

Sincerely,

A handwritten signature in blue ink that reads "Jess Wall". The signature is written in a cursive, flowing style.

JESSICA WALL
Deputy Attorney General

For XAVIER BECERRA
Attorney General

Appendix:



A satellite image of the Project site (in red) with icons depicting the elementary school and park in the surrounding area.

DEPARTMENT OF TRANSPORTATION

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LUTHER KING JR. BLVD. 95205)

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*Making Conservation
a California Way of Life.*

October 22, 2020

10-SJ-99-PM 013.15
South Stockton Commerce Center
SCH#2020090561
NOP and Initial Study

Nicole D. Moore
City of Stockton
345 N. El Dorado Street
Stockton, CA 95202

Dear Ms. Moore:

The California Department of Transportation appreciates the opportunity to review the Initial Study and Notice of Preparation of an Environmental Impact Report proposed South Stockton Commerce Center. The project includes 298 acres of industrial use, 11 acres of commercial use, 54 acres of open space, 41 acres of public facilities, and 19 acres of roadway right-of-way. The project site is located west of the 99 Frontage Road, east of Airport Way, and south of the Stockton Airport. The Department has the following comments:

1. The project will require a complete Transportation Impact Study to determine the proposed project's near-term and long-term impacts to State highway facilities. This study must be submitted to Caltrans for review and comment prior to project approval. The study must include the following.
 - a. A project description that includes a description and build years of each phase (if phasing) of the project improvements and ultimate buildout improvement.
 - b. Trip generation for each zoning district shown on page 27 of the EIR.
 - c. Highway Capacity Software (HCS) version 7 merge and diverge analysis and intersection operation analysis using Synchro/Simtraffic version 10 for the following interchanges ramps intersections.
 - SR 99/Arch Road interchange
 - SR 99/French Camp interchange
 - I-5/Arch Airport Road interchange
 - I-5/Roth Road interchange
 - d. Provide Synchro/Simtraffic version 10 electronic files and hard copy of complete report of the TIS to include the following analysis scenarios. The years of each scenario should be specified
 - Existing Conditions
 - Project Only
 - Existing Conditions plus Project

- Cumulative Conditions (Existing Conditions plus Other Approval and Pending Project without this project)
 - Cumulative Conditions with this project
 - e. Provide figures to show traffic volumes for AM and PM Peak Hours for each of the scenarios listed in Comment 1d.
 - f. The LOS, control delays and 95th Percentile queue length should be based on Simtraffic 5 runs, four 15-minute intervals with 10-minute seeding period.
2. SB 743 is changing CEQA analysis of transportation impacts. It requires local land use projects to provide safe transportation systems, reduce per capita vehicle miles traveled (VMT), increase accessibility by mode share of bicycle, pedestrian, and transit travel, and reduce GHG emissions. VMT reduction is necessary to meet the statewide greenhouse gas (GHG) goals. Caltrans recommends VMT per capita thresholds that are 15% below existing regional VMT per capita.
 3. The City should work with Caltrans Travel Forecasting Branch to provide updated traffic forecasting volumes for each phase (if phasing) of the project and ultimate buildout.
 4. STAA Truck off-tracking analysis will be required at all interchanges, intersections, and ramps mentioned above. The analysis must show that off-tracking does not encroach onto opposing lanes, will not kink within the turning paths and allow 2 ft lateral clearance provided between the truck wheel paths and edge of pavement, dikes, or curbs.
 5. This project requires the needed improvements to the highway and acquiring the appropriate STAA Terminal Access approvals. Terminal Access application procedures can be found at the following link: <http://www.dot.ca.gov/trafficops/trucks/ta-process.html>
 6. Caltrans encourages employees to use alternate modes of transportation such as buses, bicycles, and carpools to reach the property. Caltrans also encourages the inclusion of bicycle racks on the property and bus stops nearby.
 7. A hydrology and hydraulic report is necessary to determine if grading would divert drainage from this proposed project and cause an increase in runoff to existing State facilities. The report will be required to include hydraulic calculations for both existing and proposed conditions, using 25-year storm events at the project site location. The calculations must identify the affected drainage inlets, the amount of flow being intercepted and spread width calculations. Many areas of the state right of way will not allow any additional drainage to be added to the existing flows. Please submit this report to Caltrans for review and comment prior to project approval.

Ms. Moore
October 22, 2020
Page 3

If you have any questions or would like to discuss our comments in more detail, please contact Nicholas Fung at (209) 948-7190 or myself at (209) 941-1921.

Sincerely,



FOR

TOM DUMAS, CHIEF
OFFICE OF METROPOLITAN PLANNING

November 17, 2020

Nicole Moore
Acting Planning Manager
City of Stockton
345 North El Dorado Street
Stockton, California 95202
Submitted via email: nicole.moore@stocktonca.gov

Dear Nicole Moore:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Notice of Preparation (NOP) for the South Stockton Commerce Center Project (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020090561. The Project proposes the development of a maximum of 140,350 square feet of commercial uses and 6,091,551 square feet of industrial uses on a 437.45-acre site. The proposed Project is within the City of Stockton (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

Freight facilities, like the one proposed in the Project, can result in high daily volumes of heavy-duty diesel truck traffic and operation of on-site equipment (e.g., forklifts and yard tractors) that emit toxic diesel emissions, and contribute to regional air pollution and global climate change.¹ CARB has reviewed the NOP and is concerned about the air pollution and health risk impacts that would result should the City approve the Project.

I. The Project Would Increase Exposure to Air Pollution in Disadvantaged Communities

The Project, if approved, will expose nearby communities to elevated levels of air pollution. Residences are located south and west of the Project site, with the closest residences situated approximately 930 feet from the Project's western boundary. In addition to residences, the Venture Academy Family of Schools is located within 2 miles of the Project. The communities near the Project are exposed to existing toxic diesel particulate matter (diesel PM) emissions from aircraft operations at the Stockton Metropolitan Airport and vehicular traffic along Interstate 5 (I-5) and State Route 99 (SR-99). Due to the Project's proximity to residences and a school already burdened by multiple sources of air pollution, CARB is concerned with the potential cumulative health impacts associated with the construction and operation of the Project.

¹ With regard to greenhouse gas emissions from this project, CARB has been clear that local governments and project proponents have a responsibility to properly mitigate these impacts. CARB's guidance, set out in detail in the Scoping Plan issued in 2017, makes clear that in CARB's expert view, local mitigation is critical to achieving climate goals and reducing greenhouse gases below levels of significance.

The State of California has placed additional emphasis on protecting local communities from the harmful effects of air pollution through the passage of Assembly Bill 617 (AB 617) (Garcia, Chapter 136, Statutes of 2017). AB 617 is a significant piece of air quality legislation that highlights the need for further emission reductions in communities with high exposure burdens, like those in which the Project is located. Diesel PM emissions generated during the construction and operation of the Project would negatively impact nearby communities, which are already disproportionately impacted by air pollution from aircraft operations at the Stockton Metropolitan Airport and vehicular traffic along I-5 and SR-99.

Through its authority under Health and Safety Code section 39711, the California Environmental Protection Agency (CalEPA) is charged with the duty to identify disadvantaged communities. CalEPA bases its identification of these communities on geographic, socioeconomic, public health, and environmental hazard criteria (Health and Safety Code, section 39711, subsection (a)). In this capacity, CalEPA currently defines a disadvantaged community, from an environmental hazard and socioeconomic standpoint, as a community that scores within the top 25 percent of the census tracts, as analyzed by the California Communities Environmental Health Screening Tool Version 3.0 (CalEnviroScreen). CalEnviroScreen uses a screening methodology to help identify California communities currently disproportionately burdened by multiple sources of pollution. The census tract containing the Project is within the top 5 percent for Pollution Burden² and is considered a disadvantaged community; therefore, CARB urges the City to ensure that the Project does not adversely impact neighboring disadvantaged communities.

II. The DEIR Should Quantify and Discuss the Potential Cancer Risks from On-site Transport Refrigeration Units

Since the NOP states the proposed industrial uses could be used for cold storage, it is likely that trucks and trailers visiting the Project site would be equipped with transport refrigeration units (TRU).³ TRUs on trucks and trailers can emit large quantities of diesel exhaust while operating within the Project site. Residences and other sensitive receptors (e.g., daycare facilities, senior care facilities, and schools) located near where these TRUs could be operating, would be exposed to diesel exhaust emissions that would result in a significant cancer risk.

CARB urges the City to model air pollutant emissions from on-site TRUs in the DEIR, as well as include potential cancer risks from on-site TRUs in the Project's health risk assessment (HRA). The HRA prepared for the Project should account for all potential health risks from Project-related diesel PM emission sources such as backup

². Pollution Burden represents the potential exposure to pollutants and the adverse environmental conditions caused by pollution.

³. TRUs are refrigeration systems powered by integral diesel engines that protect perishable goods during transport in an insulated truck and trailer vans, rail cars, and domestic shipping containers.

generators, TRUs, and heavy-duty truck traffic, and include all the air pollutant reduction measures listed in Attachment A of this comment letter.

In addition to the health risks associated with operational emissions, health risks associated with construction emissions should also be included in the air quality section of the DEIR and the Project's HRA. Construction of the Project would result in short-term diesel emissions from the use of both on-road and off-road diesel equipment. The Office of Environmental Health Hazard Assessment's (OEHHA) guidance (2015 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments)⁴ recommends assessing cancer risks for construction projects lasting longer than two months. Since construction would very likely occur over a period lasting longer than two months, the HRA prepared for the Project should include health risks for existing residences near the Project site during construction.

The HRA prepared in support of the Project should be based on the latest OEHHA guidance. The HRA should evaluate and present the existing baseline (current conditions), future baseline (full build-out year, without the Project), and future year with the Project. The health risks modeled under both the existing and the future baselines should reflect all applicable federal, state, and local rules and regulations. By evaluating health risks using both baselines, the public and City planners will have a complete understanding of the potential health impacts that would result from the Project.

III. Conclusion

To reduce the exposure of toxic diesel PM emissions in disadvantaged communities already disproportionately impacted by air pollution, the final design of the Project should include all existing and emerging zero-emission technologies to minimize diesel PM and oxides of nitrogen (NO_x) emissions, as well as the greenhouse gases that contribute to climate change. CARB encourages the City and applicant to implement the measures listed in Attachment A of this comment letter to reduce the Project's construction and operational air pollution emissions.

Given the breadth and scope of projects subject to CEQA review throughout California that have air quality and greenhouse gas impacts, coupled with CARB's limited staff resources to substantively respond to all issues associated with a project, CARB must prioritize its substantive comments here based on staff time, resources, and its assessment of impacts. CARB's deliberate decision to substantively comment on some issues does not constitute an admission or concession that it substantively agrees with the lead agency's findings and conclusions on any issues on which CARB does not substantively submit comments.

⁴. Office of Environmental Health Hazard Assessment (OEHHA). Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February 2015. Accessed at: <https://oehha.ca.gov/media/downloads/cmr/2015guidancemanual.pdf>.

Nicole Moore
November 17, 2020
Page 4

CARB appreciates the opportunity to comment on the NOP for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. Please include CARB on your State Clearinghouse list of selected State agencies that will receive the DEIR as part of the comment period. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist, via email at stanley.armstrong@arb.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Richard Boyd". The signature is written in a cursive, flowing style.

Richard Boyd
Assistant Division Chief
Transportation and Toxics Division

Attachment

cc: See next page.

cc: State Clearinghouse
state.clearinghouse@opr.ca.gov

Dillon Delvo
Executive Director
Little Manila Rising
ddelvo@littlemanila.org

Patia Siong
Supervising Air Quality Specialist
San Joaquin Valley Air Pollution Control District
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Stanley Armstrong
Air Pollution Specialist
Exposure Reduction Section
Transportation and Toxics Division
stanley.armstrong@arb.ca.gov

ATTACHMENT A

Recommended Air Pollution Emission Reduction Measures for Warehouses and Distribution Centers

The California Air Resources Board (CARB) recommends developers and government planners use all existing and emerging zero to near-zero emission technologies during project construction and operation to minimize public exposure to air pollution. Below are some measures, currently recommended by CARB, specific to warehouse and distribution center projects. These recommendations are subject to change as new zero-emission technologies become available.

Recommended Construction Measures

1. Ensure the cleanest possible construction practices and equipment are used. This includes eliminating the idling of diesel-powered equipment and providing the necessary infrastructure (e.g., electrical hookups) to support zero and near-zero equipment and tools.
2. Implement, and plan accordingly for, the necessary infrastructure to support the zero and near-zero emission technology vehicles and equipment that will be operating on site. Necessary infrastructure may include the physical (e.g., needed footprint), energy, and fueling infrastructure for construction equipment, on-site vehicles and equipment, and medium-heavy and heavy-heavy duty trucks.
3. In construction contracts, include language that requires all off-road diesel-powered equipment used during construction to be equipped with Tier 4 or cleaner engines, except for specialized construction equipment in which Tier 4 engines are not available. In place of Tier 4 engines, off-road equipment can incorporate retrofits, such that, emission reductions achieved equal or exceed that of a Tier 4 engine.
4. In construction contracts, include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) used during project construction be battery powered.
5. In construction contracts, include language that requires all heavy-duty trucks entering the construction site, during the grading and building construction phases be model year 2014 or later. All heavy-duty haul trucks should also meet CARB's lowest optional low-oxides of nitrogen (NO_x) standard starting in the year 2022.¹

¹: In 2013, CARB adopted optional low-NO_x emission standards for on-road heavy-duty engines. CARB encourages engine manufacturers to introduce new technologies to reduce NO_x emissions below the current mandatory on-road heavy-duty diesel engine emission standards for model-year 2010 and later. CARB's optional low-NO_x emission standard is available at: <https://www.arb.ca.gov/msprog/onroad/optionnox/optionnox.htm>.

6. In construction contracts, include language that requires all construction equipment and fleets to be in compliance with all current air quality regulations. CARB is available to assist in implementing this recommendation.

Recommended Operation Measures

1. Include contractual language in tenant lease agreements that requires tenants to use the cleanest technologies available, and to provide the necessary infrastructure to support zero-emission vehicles and equipment that will be operating on site.
2. Include contractual language in tenant lease agreements that requires all loading/unloading docks and trailer spaces be equipped with electrical hookups for trucks with transport refrigeration units (TRU) or auxiliary power units. This requirement will substantially decrease the amount of time that a TRU powered by a fossil-fueled internal combustion engine can operate at the project site. Use of zero-emission all-electric plug-in TRUs, hydrogen fuel cell transport refrigeration, and cryogenic transport refrigeration are encouraged and can also be included in lease agreements.²
3. Include contractual language in tenant lease agreements that requires all TRUs entering the project site be plug-in capable.
4. Include contractual language in tenant lease agreements that requires future tenants to exclusively use zero-emission light and medium-duty delivery trucks and vans.
5. Include contractual language in tenant lease agreements requiring all TRUs, trucks, and cars entering the project site be zero-emission.
6. Include contractual language in tenant lease agreements that requires all service equipment (e.g., yard hostlers, yard equipment, forklifts, and pallet jacks) used within the project site to be zero-emission. This equipment is widely available.
7. Include contractual language in tenant lease agreements that requires all heavy-duty trucks entering or on the project site to be model year 2014 or later, expedite a transition to zero-emission vehicles, and be fully zero-emission beginning in 2030.

². CARB's technology assessment for transport refrigerators provides information on the current and projected development of TRUs, including current and anticipated costs. The assessment is available at: https://www.arb.ca.gov/msprog/tech/techreport/tru_07292015.pdf.

8. Include contractual language in tenant lease agreements that requires the tenant be in, and monitor compliance with, all current air quality regulations for on-road trucks including CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation,³ Periodic Smoke Inspection Program (PSIP),⁴ and the Statewide Truck and Bus Regulation.⁵
9. Include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than five minutes while on site.
10. Include contractual language in tenant lease agreements that limits on-site TRU diesel engine runtime to no longer than 15 minutes. If no cold storage operations are planned, include contractual language and permit conditions that prohibit cold storage operations unless a health risk assessment is conducted, and the health impacts fully mitigated.
11. Include rooftop solar panels for each proposed warehouse to the extent feasible, with a capacity that matches the maximum allowed for distributed solar connections to the grid.
12. Including language in tenant lease agreements, requiring the installing of vegetative walls⁶ or other effective barriers that separate loading docks and people living or working nearby.

³. In December 2008, CARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty tractors that pull 53-foot or longer box-type trailers. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation is available at: <https://www.arb.ca.gov/cc/hdghg/hdghg.htm>.

⁴. The PSIP program requires that diesel and bus fleet owners conduct annual smoke opacity inspections of their vehicles and repair those with excessive smoke emissions to ensure compliance. CARB's PSIP program is available at: <https://www.arb.ca.gov/enf/hdvip/hdvip.htm>.

⁵. The regulation requires that newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model-year engines or equivalent. CARB's Statewide Truck and Bus Regulation is available at: <https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>.

⁶. Effectiveness of Sound Wall-Vegetation Combination Barriers as Near-Roadway Pollutant Mitigation Strategies (2017) is available at: <https://www2.arb.ca.gov/sites/default/files/classic/research/apr/past/13-306.pdf>.

From: [Nicole Moore](#)
To: [Steve McMurtry \(smcmurtry@denovoplanning.com\)](#); "[Elise Carroll](#)"
Cc: [Trevor Smith](#)
Subject: FW: Request to be added to notification list for South Stockton Commerce Center Project (SCH2020090561)
Date: Tuesday, October 13, 2020 8:44:14 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

Just an FYI:



Nicole D. Moore, LEED-AP
SENIOR PLANNER
Community Development Department
345 N. El Dorado Street, Stockton CA 95202
Office: 209.937.8561 Direct: 209.937.8195

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City Website <http://www.stocktonca.gov>



From: Theresa Rettinghouse <trettinghouse@biologicaldiversity.org>
Sent: Friday, October 9, 2020 10:36 AM
To: Nicole Moore <Nicole.Moore@stocktonca.gov>
Subject: Request to be added to notification list for South Stockton Commerce Center Project (SCH2020090561)

CAUTION: This email originated from outside the City of Stockton. Do not click any links or open attachments if this is unsolicited email.

Good morning Ms. Moore,

Please add my email to the notification list for new documents released for the South Stockton Commerce Center Project (SCH2020090561). Do you know the estimated timeline for the release of the DEIR?

Best regards,
Theresa

Theresa Rettinghouse
(she/her/hers)
Urban Wildlands Paralegal
Center for Biological Diversity
trettinghouse@biologicaldiversity.org
Ph: 510-844-7100 ext 320

1212 Broadway St., Suite 800
Oakland, CA 94612

Central Valley Regional Water Quality Control Board

30 October 2020

Nicole D. Moore
City of Stockton
345 North El Dorado Street
Stockton, CA 95202

COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, SOUTH STOCKTON COMMERCE CENTER PROJECT, SCH#2020090561, SAN JOAQUIN COUNTY

Pursuant to the State Clearinghouse's 30 September 2020 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environmental Impact Report* for the South Stockton Commerce Center Project, located in San Joaquin County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:

http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:

https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_2018_05.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ. For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality/certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at:
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board’s Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage

under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: <https://www.waterboards.ca.gov/centralvalley/help/permit/>

If you have questions regarding these comments, please contact me at (916) 464-4856 or Nicholas.White@waterboards.ca.gov.



Nicholas White
Water Resource Control Engineer

cc: State Clearinghouse unit, Governor's Office of Planning and Research,
Sacramento

From: [Nicole Moore](#)
To: [Trevor Smith](#); [Steve McMurtry \(smcmurtry@denovoplanning.com\)](#); ["Elise Carroll"](#)
Subject: FW: South Stockton Commerce Center NOP
Date: Sunday, November 1, 2020 4:48:11 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

And this one too:



Nicole D. Moore, LEED-AP
SENIOR PLANNER
Community Development Department
345 N. El Dorado Street, Stockton CA 95202
Office: 209.937.8561 Direct: 209.937.8195

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City Website <http://www.stocktonca.gov>



From: Marven Norman <menorman@gmail.com>
Sent: Friday, October 30, 2020 4:34 PM
To: Nicole Moore <Nicole.Moore@stocktonca.gov>
Subject: South Stockton Commerce Center NOP

CAUTION: This email originated from outside the City of Stockton. Do not click any links or open attachments if this is unsolicited email.

Hi Nicole,

I would like to provide the following comments for inclusion in study by the EIR process for the South Stockton Commerce Center ("Project"). It is vital that the traffic impacts for bicyclists be studied based on the contextual guidelines set forth by Caltrans for the appropriate facility for a given road type (linked below). Doing so ensures that construction of the Project will be accessible to workers and visitors in a safe and sane manner right from the very beginning and not become a weak link in the network. This could also be pivotal for keeping Project VMT low by providing a viable alternative to access the area. Also, future intersections should be evaluated for construction as roundabouts as part of the traffic analysis as those are safer than traffic signals or two-way stops. Thank you for your time and consideration.

Cheers,

Marven E. Norman

<https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/office-of-smart-mobility-and-climate-change/planning-contextual-guidance-memo-03-11-20-a11y.pdf>



NATIVE AMERICAN HERITAGE COMMISSION

Received
OCT 06 2020
City of Stockton
Community Development

September 30, 2020

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City of Stockton
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Stockton, CA 95202CHAIRPERSON
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Merri Lopez-Keifer
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Russell Attebery
KarukCOMMISSIONER
Marshall McKay
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Pomo**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov**Re: 2020090561, South Stockton Commerce Center Project, San Joaquin County**

Dear Ms. Moore:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
 - a. A brief description of the project.
 - b. The lead agency contact information.
 - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
 - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subs. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
 - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
 - a. Alternatives to the project.
 - b. Recommended mitigation measures.
 - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).
4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
 - a. Type of environmental review necessary.
 - b. Significance of the tribal cultural resources.
 - c. Significance of the project's impacts on tribal cultural resources.
 - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
 - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a. Avoidance and preservation of the resources in place, including, but not limited to:
 - i. Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i. Protecting the cultural character and integrity of the resource.
 - ii. Protecting the traditional use of the resource.
 - iii. Protecting the confidentiality of the resource.
 - c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
- a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
- a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, § 15064.5(f) (CEQA Guidelines § 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code § 7050.5, Public Resources Code § 5097.98, and Cal. Code Regs., tit. 14, § 15064.5, subdivisions (d) and (e) (CEQA Guidelines § 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,



Nancy Gonzalez-Lopez
Cultural Resources Analyst

cc: State Clearinghouse

October 3, 2020

Community Development Department
City of Stockton
425 N. El Dorado Street
Stockton, CA 98202 - 1997

RE: AB 52 Consultation Request for the Proposed Stockton Commerce Center (Project #P20-0024),
Stockton, CA

Dear Nicole D. Moore,

Northern Valley Yokuts Tribe and Nototomne Cultural Preservation received a letter from the City of Stockton dated September 24, 2020, formally notifying us of a proposed project, the Stockton Commerce Center Project (APNs #177-110-040, -050; 177-100-030; 177-050-090; and 201-020-010 Project #P20-0024), in the City of Stockton and an opportunity to consult under AB 52. This letter is a notice that Northern Valley Yokuts Tribe and Nototomne Cultural Preservation would like to initiate consultation under AB 52.

We would like to discuss the topics listed in Cal. Public Resources Code section 21080.3.2(a), including the type of environmental review to be conducted for the project; project alternatives; the project's significant effects; and mitigation measures for any direct, indirect, or cumulative impacts the project may cause to tribal cultural resources. As consultation progresses, we may also wish to discuss design options that would avoid impacts to tribal cultural resources; the scope of any environmental document that is prepared for the project; pre-project surveys; and tribal cultural resource identification, significance evaluations and culturally-appropriate treatment.

This letter is also a formal request to allow Northern Valley Yokuts Tribe and Nototomne Cultural Preservation tribal representatives to observe and participate in all cultural resource surveys, including initial pedestrian surveys for the project. Please send us all existing cultural resource assessments, as well as requests for, and the results of, any records searches that may have been conducted prior to our first consultation meeting. If tribal cultural resources are identified within the project area, it is our policy that tribal monitors must be present for all ground disturbing activities. Finally, please be advised that our strong preference is to preserve tribal cultural resources in place and avoid them whenever possible. Subsurface testing and data recovery must not occur without first consulting with and receiving written consent from Northern Valley Yokuts Tribe and Nototomne Cultural Preservation.

In the letter you are identified as the lead contact person for consultation on the proposed project. I will be our point of contact for this consultation. Please contact me by phone 209.649.8972 or email at canutes@verizon.net begin the consultation process.

Thank you for involving Northern Valley Yokuts Tribe and Nototomne Cultural Preservation in the planning process at an early stage. We ask that you make this letter a part of the project record and we look forward to working with you to ensure that tribal cultural resources are protected.

Sincerely,


Katherine Erolinda Perez, Chairwoman



SIERRA CLUB

DELTA-SIERRA GROUP
MOTHER LODE CHAPTER

*Delta-Sierra Group
Mother Lode Chapter
P.O. Box 9258
Stockton CA 95208*

Nicole Moore
City of Stockton
345 N. El Dorado Street
Stockton CA 95202
via email: Nicole.Moore@stocktonca.gov.

10.27.2020

Re: South Stockton Commerce Center Project Notice of Preparation and Initial Study

The Delta-Sierra Group has reviewed the Initial Study for the planned industrial development located off Airport Way immediately north of the confluence with French Camp Slough and the North Fork of Little John's Creek. French Camp Slough continues through the southwestern part of the five parcels encompassing 437.45 acres of agricultural lands.

Setting



The five parcels are summarized below to help with understanding the discussion regarding General Plan Zoning Maps vs General Plan designations and a zone change designation. The information was obtained from San Joaquin County Assessors and City of Stockton Interactive Zoning Map¹. There seems to be some discrepancies between the addresses cited in the Initial Study and City of

¹ <https://stocktonca.mapgeo.io/datasets/properties?abuttersDistance=100&latlng=37.973764%2C-121.284422&themes=%22%5B%5C%22zoning%5C%22%5D%22&zoom=12>

Stockton records (shown within parentheses). Additionally, there seems to be some discrepancies related to acreage sizes as illustrated below (shown within parentheses).

Parcel Table

APN	Address	Acres	Land value (\$ SJC	Current SJC assessed use	City Zone	City General Plan
77-110-040	6110 S. Airport Way	218.29	4,357,515 (221.54 ac)	Irrigated row crop	IL (8210 S. Airport)	Industrial
177-100-030	7070 S. Airport Way	76.03	1,660,790 (80.81)	Irrigated row crop	OS (1865 E French Camp Road	Open Space/ Agricultural
177-110-050	6122 S. Airport Way	3.27	65,305	Irrigated row crop	IL (8222 S AIRPORT WY)	Industrial
201-020-010	9091 S. State Route FR 99	75.07	1,550,424 (73.74 ac)	Irrigated row crop	IL	Industrial
177-050-090	8606 S. Airport Way	64.79	1,289,060	Irrigated row crop	RH (Residential, High Density)	Industrial

The conversion of this especially important agricultural land not only will have an effect on local food security, as row crops are food crops, but will significantly affect existing flood buffering, wildlife habitat, and water infiltration. The environmental analysis of the no project alternative must characterize the positive attributes which will be lost, if developed as described in the Initial Study. Removing agricultural land removes the natural climate change attenuator that soils can serve also affecting the City's ability to reduce carbon dioxide levels in the atmosphere through carbon sequestration.

The Draft Environmental Report must include a market analysis to investigate the need for up to 6,091,551 square feet of "employment-generating" industrial uses considering recently approved similar projects under development. This maximum square footage is based on the Floor Area Ratio (FAR) of 0.47 for industrial uses including general light industrial, industrial park, warehousing, mini-warehouse, high cube transitional and short-term storage warehouse, high-cube fulfillment center warehouse, high-cube parcel hub warehouse and light-cube cold storage warehouse. There is active recruiting for existing warehouse jobs in our area which pay \$15-\$20/hour (\$600 to \$800/week) for full time work.

Farmland of Statewide Importance (S)

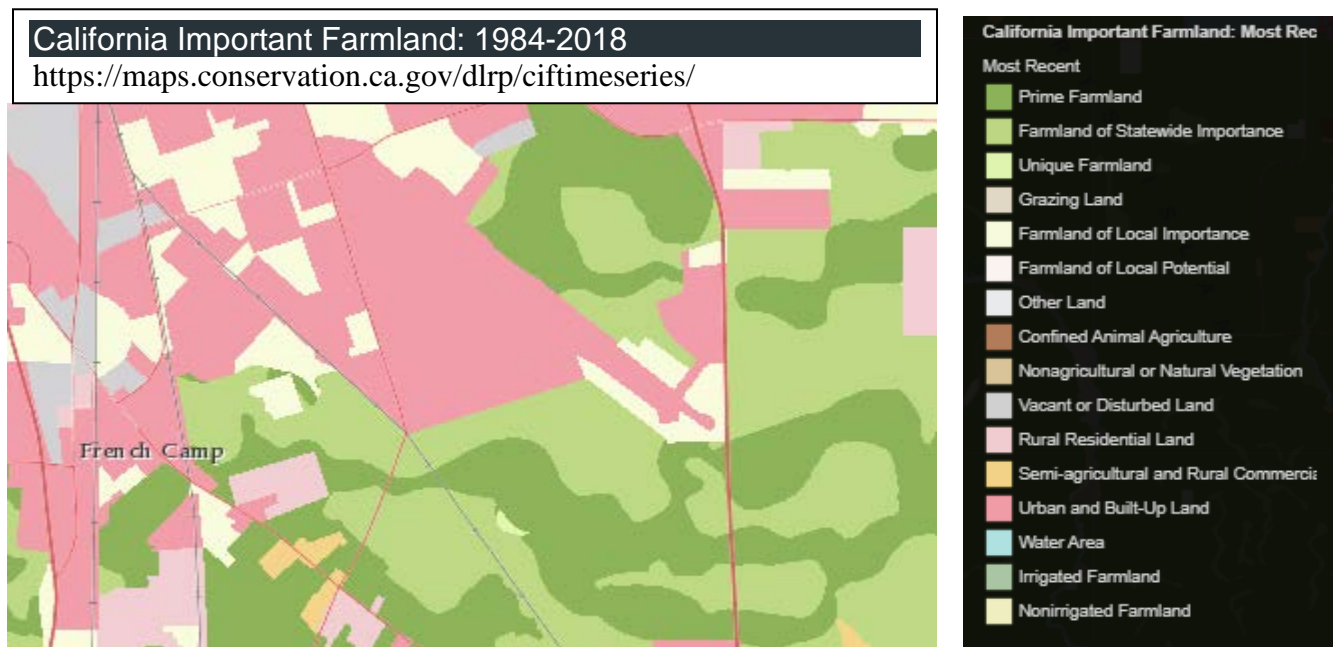
Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture.

Unique Farmland (U)

Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California.

Farmland of Local Importance (L)

Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. In some counties, Confined Animal Agriculture facilities are part of Farmland of Local Importance (PDF), but they are shown separately.



Climate changes relating to global warming must be carefully considered especially relating to changes to precipitation patterns. Paved land has much higher runoff coefficients, as compared to the existing agricultural land use which has been shown to attenuate runoff and reduce flood risks. The draft EIR must include a full flood hazard analysis to the residential area downstream of the proposed outfall to French Camp Slough.

Governor Newsom recently issued Executive Order N 82-20 announced on October 7, 2020²:

“The science is clear that, in our existential fight against climate change, we must build on our historic efforts in energy and emissions and focus on our lands as well. California’s beautiful natural and working lands are an important tool to help slow and avert catastrophic climate change, and today’s executive order provides important new tools to take on this existential threat.”

Agricultural land mitigation only ensures that some other agricultural land cannot be easily developed through a conservation easement. Agricultural land mitigation does not create new

² <https://www.gov.ca.gov/2020/10/07/governor-newsom-launches-innovative-strategies-to-use-california-land-to-fight-climate-change-protect-biodiversity-and-boost-climate-resilience/>

agricultural land. Once the land is developed it is unlikely ever to return to food production. The costs associated with the loss of food production land must be analyzed in the draft EIR

The conversion of this land to non-agricultural uses will create additional development pressures on the surrounding farmland and this must be evaluated in the draft EIR.

Air Quality

The conversion of irrigated lands to paved industrial uses accessing SR-99, I-5, the Stockton Metropolitan Airport and rail lines is expected to potentially impact air quality in South Stockton. When considering mitigation measures please refer to the CARB Technical Advisory Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways³.

(Adjust Font size) When assessing the Project's air pollution emissions from mobile sources use the emission factors found in CARB's latest EMFAC2017. These emission factors were updated from 2014 to provide the best available estimates of emission along with other site-specific variables which will be difficult to determine since the project is conceptual. Please include purple monitor data when evaluating local air quality conditions in the vicinity. Please provide descriptions of all zoned uses for the projects including general light industrial, industrial park, warehousing, mini-warehouse, high cube transitional and short-term storage warehouse, high-cube fulfillment center warehouse, high-cube parcel hub warehouse and light-cube cold storage warehouse. Any development agreements that would limit the amount of various zoned uses must be fully disclosed with complete descriptions of associated air emissions scenarios.

Ultimately, "the lead agency will examine each of the environmental issues listed in the checklist... and decide whether the proposed project has the potential to have a significant impact". This statement was found for each of the CEQA checklist type. The City of Stockton recently approved the conversion of agricultural land for a logistic center and made the finding that air quality will be improved.

If approved, a development agreement that is transferrable will be established without any defined project. Without a defined project it is very difficult to determine impacts which may result from development approved based on zoning. On previous similar projects there have been requests that a reasonable trip length for off-site heavy-heavy duty truck travel be used when analyzing emissions. The San Joaquin Valley AD will not be able to attain health based federal air quality standards without reductions in emissions from HHD which is the single largest source of NOX emissions in the San Joaquin Valley. Operational emissions for on-site sources must also be quantified.

EPA Air Quality Status⁴

pollutant	effec_rede	nonattain	class	part	population
1-Hour Ozone (1979)	- -	Yes	Extreme	W	685306
8-Hour Ozone (1997)	- -	Yes	Extreme	W	685306
8-Hour Ozone (2008)	- -	Yes	Extreme	W	685306
8-Hour Ozone (2015)	- -	Yes	Extreme	W	685306
Carbon Monoxide (1971)	6/1/1998		Moderate <= 12.7ppm	P	373545
PM-10 (1987)	12/12/2008		Serious	W	685306
PM-2.5 (1997)	- -	Yes	Serious	W	685306
PM-2.5 (2006)	- -	Yes	Serious	W	685306
PM-2.5 (2012)	- -	Yes	Moderate	W	685306

³ https://ww3.arb.ca.gov/ch/rd_technical_advisory_final.pdf

⁴ https://www3.epa.gov/airquality/greenbook/anayo_ca.html

Community air quality can be linked to vehicular emissions

The SJVAPCD 2018 PM 2.5 Plan identifies how reductions can be achieved, through implementation of the CARB Statewide Truck and Bus Regulation. The regulation will apply to all truck fleets operating within California, including any fleets that may be associated with the proposed project. As stated, the regulation will require conformance with the identified CARB near-zero truck NOx emission standard.

Again, evaluating impacts is challenging for a project that is not well defined. Recently, the City of Stockton used CalEEMod fleet mix defaults to estimate a project's mobile source air pollutant emissions and was notified that the mileage used required revisions. When performing air emission analyses and traffic impact studies a reasonable estimate of heavy-duty truck trips commensurate with the proposed project's size and location is necessary. Please be very clear and concise when disclosing the parameters used during emissions and traffic analyses.

Land use is within the City's regulatory purview and while the City is not expected to enforce CARB or SJVAPCD standards the City's choice to approve projects with intense trucking and rail components means that it is adding new sources – like an attractive nuisance – which will increase the exposure of our residents to pollution. Mitigation is needed to reduce the impact of the project and should be paid for by the developer not the residents of Stockton.

Transportation

The same issues with regard to evaluating impacts for a project that is not well defined will confound the environmental analysis particularly if it is difficult to ascertain the estimates used when performing the transportation analyses.

The EIR will describe existing and future transportation conditions and will analyze any potential conflicts with programs, plans, ordinances or policies addressing the circulation system. Potential impacts associated with site access, and on-site circulation will also be addressed in the EIR. A detailed vehicle mile traveled (VMT) analysis will be conducted to determine if the project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). The VMT analysis would be completed consistent with the Office of Planning and Research's (OPR's) Technical Advisory on Evaluating Transportation Impacts in CEQA.

If the City of Stockton uses a full build out for the general plan designations then it is likely that regardless of the VMT analysis which is to be undertaken, the City will find: Impact TRANS-1: Consistency with CEQA Guidelines Section 15064.3(b). Compared with existing land use designations, the project would generate less VMT and would therefore be consistent with CEQA Guidelines which is the language used in a similar logistic industrial center. The existing use of the property is the no project alternative and should be used to determine whether or not the project will have a significant impact. Additionally, please provide at your earliest convenience the VMT analysis which the City must be developing consistent with CEQA guidance:

By July 1, 2020, public agencies evaluating the impact of development projects are required to use vehicle miles traveled (VMT) to evaluate transportation impacts. This change removes the focus on traffic at intersections and roadways immediately around project sites. Instead,

the focus will be on how new development projects may influence the overall amount of automobile use.⁵

The NOP did not specify what City of Stockton guidance would be used but it is likely not to be the Standards of the City's Transportation Impact Guidelines used in the analysis of a similar project earlier this year.

Tribal Cultural Resources

Please incorporate a paid tribal representative to be present during land disturbance activities recognizing tribal sovereignty. Two local Tribes include the United Auburn Indian Community and the Northern Valley Yokuts which we are in communication with.

Greenhouse Gas Reduction Requirements

The City of Stockton Climate Action Plan adopted in 2014 included the following statement which is even more true now that our community suffers from the economic and emotional impacts relating to the Covid-19 pandemic:

The CAP would require substantial effort on the part of the entire Stockton community, including residents and business, schools, the San Joaquin Regional Transit District, other public entities, and the Stockton municipal government at a time when residents, businesses, and public agencies are struggling to pay current bills, keep businesses open, and provide basic services. This plan, if fully implemented, would result in a 20% reduction in per capita GHG emission from 2005 to 2020.

Many of the measures included in the CAP would result in long-term economic, environmental, health and other benefits for the City and its residents and businesses in addition to the expected GHG emission reductions.

Vegetation has been shown to be effective at reducing energy and air pollutant transport. Any vegetation associated with the project or subsequent development must be paid for and maintained by the applicant not the residents of Stockton.

Removing agricultural land removes the natural climate change attenuator that soils can serve and must be accounted when evaluating greenhouse gas emissions.

CEQA is clear that "uniformly applicable development policies or standards" need to be considered in the analysis of environmental effects and their significance and the need for additional mitigation measures. These additional measures are those required by the lead agency to protect public health and the environment that may be harmed as a result of the approval of the project. Relying on state guidance which was developed prior to the project and did not consider the project's impact is not sufficient when parts of our community is unequally burdened by negative environmental impacts. All zip codes are not created equal.

This Project is not vital for our recovery and we hope that the draft environmental impact analysis will be sufficiently detailed so that the residents of Stockton can determine the document's adequacy to describe the environmental costs associated with the project. Cost to Benefits ratio must be clearly described.

Please add the Delta-Sierra Group to your CEQA notification list. We became aware of the project through a CEQAnet link from a colleague. Please let us know if there is to be any public meeting

⁵ <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-02-26-transmittal-and-draft-vmt-focused-tisg.pdf>

regarding this project and when the draft environmental impact report becomes available to review. If you have any questions you may contact me by email mebeth@outlook.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'MEBETH'.

Mary Elizabeth M.S., R.E.H.S.

Cc: Mother Lode Chapter

Catholic Charities, Environmental Justice Stockton Diocese

Restore the Delta

Central California Asthma Collaborative

Central Valley Air Quality Coalition

Little Manilla Rising

Environmental Justice Coalition for Water

October 30, 2020

Nicole Moore
City of Stockton
345 N. El Dorado Street
Stockton, CA, 95202

Project: Notice of Preparation for the South Stockton Commerce Center (SSCC)

District CEQA Reference No: 20200842

Dear Ms. Moore:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the project referenced above from the City of Stockton (City) consisting of development of approximately 298 net acres for the development of mix use industrial and commercial uses, 95 acres for public facilities and open space areas, and 19 acres for road right-of-way (Project). The Project is located in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport, in Stockton, CA (APN 177-110-040, 177-100-030, 177-110-050, 201-020-010, and 177-050-090).

Project Scope

The Project consists of the expansions of an existing industrial area located in southeast Stockton. The expansion will include the development of approximately 300 acres of industrial uses to a maximum of 6,091,551 square feet, approximately 41 acres of public facilities (storm basins and pump stations), approximately 54 acres of open space for parks, approximately 19 acres for road right-of-way, and approximately 11 acres for commercial uses totaling a maximum of 140,350 square feet.

The District's initial review of the Project concludes that emissions resulting from construction and/or operation of the Project may exceed the following thresholds of significance: 100 tons per year of carbon monoxide (CO), 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), 27 tons per year of oxides of sulfur (SOx), 15 tons per year of particulate matter of 10 microns or less in size (PM10), or 15 tons per year of particulate matter of 2.5 microns or less in size (PM2.5).

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (861) 392-5500 FAX: (861) 392-5585

The District recommends that a more detailed preliminary review of the Project be conducted for the Project's construction and operational emissions.

Other potential significant air quality impacts related to Toxic Air Contaminants (see information below under Health Risk Assessment), Ambient Air Quality Standards, Hazards and Odors, may require assessments and mitigation. More information can be found in the District's Guidance for Assessing and Mitigating Air Quality Impacts at: https://www.valleyair.org/transportation/GAMAQI_12-26-19.pdf

The District offers the following comments:

1) District Rule 9510 (Indirect Source Review)

The purpose of District Rule 9510 is to reduce the growth in both NO_x and PM₁₀ emissions associated with development and transportation projects from mobile and area sources associated with construction and operation of development projects. The rule encourages clean air design elements to be incorporated into development projects. In case the proposed development project clean air design elements are insufficient to meet the targeted emission reductions, the rule requires developers to pay a fee used to fund projects to achieve off-site emissions reductions.

Accordingly, future development project(s) within the Project would be subject to District Rule 9510 if:

- (1) Upon full build-out, the project would receive a project-level discretionary approval from a public agency and would equal or exceed any one of the following applicability thresholds:
 - 50 dwelling units
 - 2,000 square feet of commercial space;
 - 25,000 square feet of light industrial space;
 - 100,000 square feet of heavy industrial space;
 - 20,000 square feet of medical office space;
 - 39,000 square feet of general office space; or
 - 9,000 square feet of educational space; or
 - 10,000 square feet of government space; or
 - 20,000 square feet of recreational space; or
 - 9,000 square feet of space not identified above
- (2) Or would equal or exceed any of the applicability thresholds in section 2.2 of the rule.

District Rule 9510 also applies to any transportation or transit development projects where construction exhaust emissions equal or exceed two (2.0) tons of NO_x or two (2.0) tons of PM₁₀.

In the case the future development project(s) are subject to District Rule 9510, an Air Impact Assessment (AIA) application is required and the District recommends that demonstration of compliance with District Rule 9510, before issuance of the first building permit, be made a condition of Project approval.

Information about how to comply with District Rule 9510 can be found online at:

<http://www.valleyair.org/ISR/ISRHome.htm>.

The AIA application form can be found online at:

<http://www.valleyair.org/ISR/ISRFormsAndApplications.htm>.

District staff is available to provide assistance with determining if future development projects will be subject to Rule 9510, and can be reached by phone at (559) 230-6000 or by email at ISR@valleyair.org.

2) Regulation VIII (Fugitive PM₁₀ Prohibitions)

As the Project is expected to generate fugitive dust during related construction activities, it will be subject to Regulation VIII requirements. Information on how to comply with Regulation VIII can be found online at:

http://www.valleyair.org/busind/comply/PM10/compliance_PM10.htm.

3) Project Related Criteria Pollutant Emissions

The District recommends that a more detailed preliminary review of the Project be conducted for the Project's construction and operational emissions. The additional environmental review of the Project's potential impact on air quality should consider the following items:

3a) Project Related Construction Emissions

Construction emissions are short-term emissions and should be evaluated separately from operational emissions. Equipment exhaust, as well as fugitive dust emissions should be quantified. For reference, the District's annual criteria thresholds of significance for construction are listed above.

The District recommends that the City consider the use of the cleanest reasonably available off-road construction practices (i.e. eliminating unnecessary idling) and fleets, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations as a mitigation measure to reduce Project related impacts from construction related exhaust emissions.

3b) Project Related Operational Emissions

Emissions from stationary sources and mobile sources should be analyzed separately. For reference, the District's annual criteria thresholds of significance for operational emissions are listed in the Project Scope.

3c) Recommended Model

Project related criteria pollutant emissions from construction and operational sources should be identified and quantified. Emissions analysis should be performed using CalEEMod (**California Emission Estimator Model**), which uses the most recent approved version of relevant Air Resources Board (ARB) emissions models and emission factors. CalEEMod is available to the public and can be downloaded from the CalEEMod website at: www.caleemod.com.

3d) Project Related Operational Emissions– Truck Routing

Truck routing involves the path/roads heavy-duty trucks take to and from their destination. The air emissions from heavy-duty trucks can impact residential communities and sensitive receptors.

The District recommends the City consider evaluating heavy-duty truck routing patterns to help limit emission exposure to residential communities and sensitive receptors. More specifically, this measure would assess current truck routes, in consideration of the number and type of each vehicle, destination/origin of each vehicular trip, time of day/week analysis, vehicle miles traveled and emissions. The truck routing evaluation would also identify alternative truck routes and their impacts on VMT, GHG emissions, and air quality.

3e) Project Related Operational Emissions– Cleanest Available Truck

The San Joaquin Valley will not be able to attain stringent health-based federal air quality standards without significant reductions in emissions from heavy-heavy duty (HHD) Trucks, the single largest source of NOx emissions in the San Joaquin Valley. The District recently adopted the 2018 PM2.5 Plan, which includes significant new reductions from HHD Trucks, including emissions reductions by

2023 through the implementation of the California Air Resources Board (CARB) Statewide Truck and Bus Regulation, which requires truck fleets operating in California to meet the 2010 0.2 g/bhp-hr NO_x standard by 2023. Additionally, to meet the federal air quality standards by the 2020 to 2024 attainment deadlines, the District's Plan relies on a significant and immediate transition of heavy duty truck fleets to zero or near-zero emissions technologies, including the near-zero truck standard of 0.02 g/bhp-hr NO_x established by the California Air Resources Board.

Development projects have the potential to create a large volume of heavy-duty truck traffic as heavy-duty trucks travel to-and-from the project location at longer trip distances for building material distribution. Since the project may exceed the District significance thresholds, the District recommends that the following mitigation measures be considered by the City for inclusion in the Environmental Impact Report (EIR) for project related operational emissions.

- Advise fleets associated with Project operational activities to utilize the cleanest available HHD truck technologies, including zero and near-zero (0.02 g/bhp-hr NO_x) technologies as feasible.
- Advise all on-site service equipment (cargo handling, yard hostlers, forklifts, pallet jacks, etc.) to utilize zero-emissions technologies as feasible.
- Advise fleets associated with future development projects to be subject to the best practices (i.e. eliminating unnecessary idling).

In addition, the District recommends that the City include mitigation measures to reduce project related operational impacts through incorporation of design elements, for example, increased energy efficiency, reducing vehicle miles traveled, etc. More information on mitigation measures can be found on the District's website at: http://www.valleyair.org/transportation/ceqa_idx.htm.

3f) Project Related Operational Emissions– Reduce Idling of Heavy Duty Trucks

The goal of this strategy is to limit the potential for localized PM_{2.5} and toxic air quality impacts associated with failure to comply with the state's Heavy Duty anti-idling regulation (e.g limiting vehicle idling to specific time limits). The diesel exhaust from excessive idling has the potential to impose significant adverse health and environmental impacts. Therefore, efforts to ensure compliance of the anti-idling regulation, especially near sensitive receptors, is important to limit the

amount of idling within the community, which will result in community air quality benefits.

3g) Project Related Operational Emissions– Electric On-Site Off-Road and On-Road Equipment

Since the Project consists of industrial uses, it may have the potential to result in increased use of off-road equipment (i.e. forklifts) and/or on-road equipment (i.e. mobile yard trucks with the ability to move materials). The District recommends the City advise the project proponent to utilize electric or zero emission off-road and on-road equipment used on-site for this Project.

4) Health Risk Screening/Assessment

A Health Risk Screening/Assessment identifies potential Toxic Air Contaminants (TAC's) impact on surrounding sensitive receptors such as hospitals, daycare centers, schools, work-sites, and residences. TAC's are air pollutants identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) that pose a present or potential hazard to human health. A common source of TACs can be attributed to diesel exhaust emitted from both mobile and stationary sources. List of TAC's identified by OEHHA/CARB can be found at: <https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants>

The District recommends the Project be evaluated for potential health impacts to surrounding receptors (on-site and off-site) resulting from operational and multi-year construction TAC emissions.

- i) The District recommends conducting a screening analysis that includes all sources of emissions. A screening analysis is used to identify projects which may have a significant health impact. A prioritization, using CAPCOA's updated methodology, is the recommended screening method. A prioritization score of 10 or greater is considered to be significant and a refined Health Risk Assessment (HRA) should be performed.

For your convenience, the District's prioritization calculator can be found at: http://www.valleyair.org/busind/pto/emission_factors/Criteria/Toxics/Utilities/PRIORITIZATION%20RMR%202016.XLS.

- ii) The District recommends a refined HRA for projects that result in a prioritization score of 10 or greater. Prior to performing an HRA, it is recommended that the Project proponent contact the District to review the proposed modeling protocol.

The Project would be considered to have a significant health risk if the HRA demonstrates that the Project related health impacts would exceed the District's significance threshold of 20 in a million for carcinogenic risk and 1.0 for the Acute and Chronic Hazard Indices, and would trigger all feasible mitigation measures. The District recommends that Projects that result in a significant health risk not be approved.

For HRA submittals, please provide the following information electronically to the District for review:

- HRA AERMOD model files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodology.

More information on toxic emission factors, prioritizations and HRAs can be obtained by:

- E-Mailing inquiries to: hramodeler@valleyair.org; or
- The District can be contacted at (559) 230-6000 for assistance; or
- Visiting the District's website (Modeling Guidance) at:
http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm.

5) Voluntary Emission Reduction Agreement

If the Project is expected to have a significant impact, the District recommends the EIR also include a discussion on the feasibility of implementing a Voluntary Emission Reduction Agreement (VERA) for this Project.

A VERA is a mitigation measure by which the project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emission reduction projects, with the District serving a role of administrator of the emissions reduction projects and verifier of the successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate Project specific emissions by providing funds for the District's incentives programs. The funds are disbursed by the District in the form of grants for projects that achieve emission reductions. Thus, project-specific regional impacts on air quality can be fully mitigated. Types of emission reduction projects that have been funded in the past include electrification of stationary internal combustion engines (such as agricultural

irrigation pumps), replacing old heavy-duty trucks with new, cleaner, more efficient heavy-duty trucks, and replacement of old farm tractors.

In implementing a VERA, the District verifies the actual emission reductions that have been achieved as a result of completed grant contracts, monitors the emission reduction projects, and ensures the enforceability of achieved reductions. After the project is mitigated, the District certifies to the Lead Agency that the mitigation is completed, providing the Lead Agency with an enforceable mitigation measure demonstrating that project-specific regional emissions have been mitigated to less than significant. To assist the Lead Agency and project proponent in ensuring that the environmental document is compliant with CEQA, the District recommends the Draft EIR includes an assessment of the feasibility of implementing a VERA.

6) Health Impact Discussion

As required by the decision in *Sierra Club v. County of Fresno* (2018) 6 Cal.4th 502, a reasonable effort to discuss relevant specifics regarding the connection between potential adverse air quality impacts from the Project with the likely nature and magnitude of potential health impacts may be required. If the potential health impacts from the Project cannot be specifically correlated, explain what is known and why, given scientific constraints, potential health impacts cannot be translated.

7) Ambient Air Quality Analysis

An ambient air quality analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of the ambient air quality standards. The District recommends that an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

If an AAQA is performed, the analysis should include emissions from both Project specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis.

Specific information for assessing significance, including screening tools and modeling guidance is available online at the District's website www.valleyair.org/ceqa.

8) Cumulative Air Impacts

In addition to the discussions on the topics identified above, the District recommends the EIR also include a discussion of whether the Project would result in a cumulatively considerable net increase of any criteria pollutant or precursor for which the San Joaquin Valley Air Basin is in non-attainment. More information on the District's attainment status can be found online by visiting the District's website at: <http://valleyair.org/aqinfo/attainment.htm>.

9) District Rule 9410 (Employer Based Trip Reduction)

The Project may be subject to District Rule 9410 (Employer Based Trip Reduction) if the Project would result in employment of 100 or more "eligible" employees. District Rule 9410 requires employers with 100 or more "eligible" employees at a worksite to establish an Employer Trip Reduction Implementation Plan (eTRIP) that encourages employees to reduce single-occupancy vehicle trips, thus reducing pollutant emissions associated with work commutes. Under an eTRIP plan, employers have the flexibility to select the options that work best for their worksites and their employees.

Information about how District Rule 9410 can be found online at: www.valleyair.org/tripreduction.htm.

For additional information, you can contact the District by phone at 559-230-6000 or by e-mail at etrip@valleyair.org

10) Other District Rules and Regulations

The Project may also be subject to the following District rules: Regulation VIII, (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants).

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm. To identify other District rules or regulations that apply to this Project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (209) 557-6446.

11) District Comment Letter

The District recommends that a copy of the District's comments be provided to the Project proponent.

If you have any questions or require further information, please contact Eric McLaughlin by e-mail at Eric.McLaughlin@valleyair.org or by phone at (559) 230-5808.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Arnaud Marjollet', with a stylized flourish at the end.

For Arnaud Marjollet
Director of Permit Services

AM: em

APPENDIX B

Air Quality, Greenhouse Gas, and Energy Appendices

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Appendix B.1: CalEEMod Outputs

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Appendix B.3: Health Risk Assessment

APPENDIX B.1

CalEEMod Outputs

South Stockton Commerce Center v2 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	South Stockton Commerce Center v2
Construction Start Date	8/1/2024
Operational Year	2040
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.40
Precipitation (days)	31.2
Location	37.88267522325094, -121.23819209936221
County	San Joaquin
City	Stockton
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2046
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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General Heavy Industry	426	1000sqft	20.9	426,410	0.00	0.00	—	—
Other Asphalt Surfaces	18.2	Acre	18.2	0.00	0.00	0.00	—	—
Other Non-Asphalt Surfaces	41.0	Acre	41.0	0.00	0.00	0.00	—	—
City Park	54.0	Acre	54.0	0.00	0.00	0.00	—	—
Regional Shopping Center	140	1000sqft	11.0	140,350	0.00	0.00	—	—
Industrial Park	914	1000sqft	44.7	913,730	0.00	0.00	—	—
Unrefrigerated Warehouse-No Rail	3,838	1000sqft	188	3,837,680	0.00	0.00	—	—
Refrigerated Warehouse-No Rail	914	1000sqft	44.7	913,730	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.1	61.8	50.2	135	0.24	1.60	34.0	34.4	1.47	10.1	11.6	—	52,776	52,776	1.05	4.93	118	54,175

Mit.	12.1	61.8	50.2	135	0.24	1.60	34.0	34.4	1.47	8.31	8.65	—	52,776	52,776	1.05	4.93	118	54,175
% Reduced	—	—	—	—	—	—	—	—	—	18%	25%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.0	61.7	55.9	120	0.24	1.60	34.0	34.4	1.47	10.1	11.6	—	51,761	51,761	1.22	5.21	3.47	53,291
Mit.	12.0	61.7	55.9	120	0.24	1.60	34.0	34.4	1.47	8.31	8.66	—	51,761	51,761	1.22	5.21	3.47	53,291
% Reduced	—	—	—	—	—	—	—	—	—	18%	25%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.20	43.8	37.3	82.7	0.17	0.93	23.8	24.0	0.85	5.80	6.05	—	36,533	36,533	0.79	3.53	36.6	37,637
Mit.	8.20	43.8	37.3	82.7	0.17	0.93	23.8	24.0	0.85	5.80	6.05	—	36,533	36,533	0.79	3.53	36.6	37,637
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.50	8.00	6.82	15.1	0.03	0.17	4.34	4.39	0.16	1.06	1.10	—	6,049	6,049	0.13	0.58	6.06	6,231
Mit.	1.50	8.00	6.82	15.1	0.03	0.17	4.34	4.39	0.16	1.06	1.10	—	6,049	6,049	0.13	0.58	6.06	6,231
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.43	3.73	36.0	33.9	0.05	1.60	19.8	21.4	1.47	10.1	11.6	—	5,461	5,461	0.22	0.05	0.66	5,482

2025	4.02	3.38	31.7	31.1	0.06	1.37	19.8	21.2	1.26	10.1	11.4	—	6,784	6,784	0.28	0.06	0.69	6,810
2026	3.71	3.12	27.3	28.5	0.06	1.12	9.37	10.5	1.03	3.69	4.72	—	6,780	6,780	0.27	0.06	0.62	6,805
2027	3.59	3.02	25.6	28.2	0.06	1.04	9.37	10.4	0.96	3.69	4.65	—	6,776	6,776	0.27	0.06	0.56	6,802
2028	11.9	11.1	46.2	132	0.23	0.71	29.7	30.4	0.69	7.28	7.97	—	52,282	52,282	1.04	4.93	118	53,894
2029	12.1	10.5	50.2	135	0.24	0.92	29.8	30.7	0.88	7.31	8.19	—	52,776	52,776	1.05	4.26	105	54,175
2030	11.6	10.0	47.9	128	0.24	0.89	29.8	30.7	0.85	7.31	8.16	—	51,633	51,633	0.84	4.05	92.4	52,954
2031	10.3	8.74	40.3	112	0.23	0.65	29.7	30.3	0.43	7.28	7.71	—	48,802	48,802	0.72	3.83	80.3	50,042
2032	9.20	8.32	39.0	107	0.23	0.43	29.7	30.1	0.41	7.28	7.69	—	47,741	47,741	0.72	3.83	69.7	48,971
2033	8.68	8.01	37.1	103	0.23	0.41	29.7	30.1	0.39	7.28	7.67	—	46,696	46,696	0.72	3.63	59.7	47,855
2034	8.26	7.60	35.9	99.1	0.23	0.40	29.7	30.1	0.38	7.28	7.66	—	45,721	45,721	0.67	3.63	50.8	46,870
2035	8.13	7.52	35.0	95.5	0.23	0.38	29.7	30.1	0.37	7.28	7.65	—	44,821	44,821	0.67	3.42	43.0	45,901
2036	7.92	7.25	34.2	92.1	0.23	0.37	29.7	30.0	0.36	7.28	7.64	—	44,011	44,011	0.67	3.42	36.0	45,084
2037	7.61	6.95	32.9	90.0	0.23	0.36	29.7	30.0	0.35	7.28	7.63	—	43,294	43,294	0.67	3.42	29.9	44,361
2038	8.63	61.8	33.5	103	0.23	0.36	34.0	34.4	0.35	8.31	8.65	—	46,685	46,685	0.72	3.25	27.8	47,700
2039	1.14	54.8	1.22	14.1	< 0.005	< 0.005	4.37	4.38	< 0.005	1.03	1.03	—	4,082	4,082	0.05	0.04	2.58	4,096
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.42	3.72	36.0	33.7	0.05	1.60	19.8	21.4	1.47	10.1	11.6	—	5,445	5,445	0.22	0.05	0.02	5,465
2025	4.01	3.38	31.7	30.9	0.06	1.37	19.8	21.2	1.26	10.1	11.4	—	6,766	6,766	0.27	0.06	0.02	6,791
2026	3.70	3.12	27.3	28.3	0.06	1.12	9.37	10.5	1.03	3.69	4.72	—	6,762	6,762	0.27	0.06	0.02	6,787
2027	11.9	10.8	51.9	116	0.23	1.04	29.7	30.4	0.96	7.28	8.00	—	51,206	51,206	1.22	5.21	3.47	52,792
2028	12.0	10.5	55.9	120	0.24	0.97	29.8	30.8	0.92	7.31	8.23	—	51,761	51,761	1.22	5.02	3.08	53,291
2029	11.5	9.85	53.9	114	0.24	0.92	29.8	30.7	0.88	7.31	8.19	—	50,657	50,657	1.17	5.00	2.72	52,179
2030	11.0	9.34	51.6	109	0.24	0.89	29.8	30.7	0.85	7.31	8.16	—	49,555	49,555	0.96	4.74	2.39	50,993
2031	9.04	8.12	43.1	92.9	0.23	0.65	29.7	30.3	0.43	7.28	7.71	—	46,773	46,773	0.84	4.52	2.09	48,142
2032	8.70	7.79	41.6	89.5	0.23	0.43	29.7	30.1	0.41	7.28	7.69	—	45,742	45,742	0.84	3.83	1.81	46,907
2033	8.19	7.48	39.7	85.4	0.23	0.41	29.7	30.1	0.39	7.28	7.67	—	44,727	44,727	0.78	3.63	1.55	45,829

2034	7.89	7.24	38.7	82.0	0.23	0.40	29.7	30.1	0.38	7.28	7.66	—	43,778	43,778	0.78	3.63	1.32	44,880
2035	7.75	7.11	37.6	79.3	0.23	0.38	29.7	30.1	0.37	7.28	7.65	—	42,901	42,901	0.78	3.42	1.11	43,942
2036	7.62	6.98	36.1	77.0	0.23	0.37	29.7	30.0	0.36	7.28	7.64	—	42,112	42,112	0.72	3.42	0.94	43,151
2037	8.57	61.7	36.6	86.3	0.23	0.37	34.0	34.4	0.35	8.31	8.66	—	45,188	45,188	0.79	3.46	0.87	46,240
2038	8.22	60.6	36.0	83.9	0.23	0.36	34.0	34.4	0.35	8.31	8.65	—	44,446	44,446	0.76	3.25	0.72	45,435
2039	1.12	54.8	1.39	11.1	< 0.005	< 0.005	4.37	4.38	< 0.005	1.03	1.03	—	3,707	3,707	0.06	0.04	0.07	3,719
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.32	1.11	10.8	10.1	0.01	0.48	5.93	6.41	0.44	3.03	3.48	—	1,631	1,631	0.07	0.01	0.09	1,638
2025	2.82	2.38	21.9	21.5	0.04	0.93	10.4	11.3	0.85	4.93	5.79	—	4,364	4,364	0.18	0.04	0.20	4,380
2026	2.64	2.23	19.5	20.3	0.04	0.80	6.69	7.49	0.74	2.64	3.37	—	4,833	4,833	0.19	0.04	0.19	4,851
2027	3.32	2.87	20.6	28.3	0.06	0.72	8.51	9.22	0.66	2.95	3.62	—	8,965	8,965	0.27	0.52	5.47	9,132
2028	8.08	7.01	35.2	80.6	0.16	0.53	20.9	21.4	0.51	5.12	5.63	—	36,412	36,412	0.79	3.53	36.6	37,520
2029	8.20	7.01	37.3	82.7	0.17	0.66	20.9	21.5	0.63	5.12	5.75	—	36,533	36,533	0.79	3.53	32.3	37,637
2030	7.65	6.44	33.7	75.3	0.17	0.57	20.8	21.4	0.54	5.11	5.65	—	35,226	35,226	0.62	3.38	28.4	36,277
2031	6.53	5.86	30.1	67.6	0.16	0.47	20.8	21.3	0.31	5.10	5.40	—	33,744	33,744	0.56	2.74	24.8	34,599
2032	6.24	5.61	28.8	65.0	0.16	0.31	20.8	21.1	0.29	5.11	5.41	—	33,093	33,093	0.56	2.75	21.6	33,947
2033	5.84	5.36	27.8	62.5	0.16	0.29	20.8	21.1	0.28	5.10	5.38	—	32,273	32,273	0.56	2.59	18.4	33,078
2034	5.58	5.11	26.5	59.7	0.16	0.28	20.8	21.1	0.27	5.10	5.37	—	31,591	31,591	0.52	2.59	15.7	32,392
2035	5.57	5.05	25.9	58.0	0.16	0.27	20.8	21.1	0.26	5.10	5.36	—	30,961	30,961	0.52	2.44	13.2	31,716
2036	5.49	5.02	25.2	56.1	0.16	0.27	20.8	21.1	0.26	5.11	5.37	—	30,477	30,477	0.52	2.45	11.2	31,232
2037	5.37	9.84	24.8	55.5	0.16	0.26	21.2	21.4	0.25	5.19	5.44	—	30,247	30,247	0.52	2.45	9.38	30,999
2038	5.89	43.8	25.1	61.7	0.16	0.26	23.8	24.0	0.25	5.80	6.05	—	32,037	32,037	0.51	2.32	8.57	32,749
2039	0.77	38.3	0.96	7.98	< 0.005	< 0.005	2.99	3.00	< 0.005	0.70	0.70	—	2,652	2,652	0.04	0.02	0.78	2,661
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.24	0.20	1.97	1.84	< 0.005	0.09	1.08	1.17	0.08	0.55	0.63	—	270	270	0.01	< 0.005	0.01	271
2025	0.52	0.43	4.00	3.92	0.01	0.17	1.90	2.07	0.16	0.90	1.06	—	723	723	0.03	0.01	0.03	725
2026	0.48	0.41	3.56	3.70	0.01	0.15	1.22	1.37	0.13	0.48	0.62	—	800	800	0.03	0.01	0.03	803

2027	0.61	0.52	3.76	5.17	0.01	0.13	1.55	1.68	0.12	0.54	0.66	—	1,484	1,484	0.04	0.09	0.90	1,512
2028	1.48	1.28	6.43	14.7	0.03	0.10	3.81	3.90	0.09	0.93	1.03	—	6,028	6,028	0.13	0.58	6.06	6,212
2029	1.50	1.28	6.82	15.1	0.03	0.12	3.81	3.93	0.12	0.93	1.05	—	6,049	6,049	0.13	0.58	5.34	6,231
2030	1.40	1.17	6.15	13.8	0.03	0.10	3.80	3.91	0.10	0.93	1.03	—	5,832	5,832	0.10	0.56	4.71	6,006
2031	1.19	1.07	5.49	12.3	0.03	0.09	3.79	3.88	0.06	0.93	0.99	—	5,587	5,587	0.09	0.45	4.11	5,728
2032	1.14	1.02	5.25	11.9	0.03	0.06	3.80	3.86	0.05	0.93	0.99	—	5,479	5,479	0.09	0.45	3.57	5,620
2033	1.07	0.98	5.08	11.4	0.03	0.05	3.79	3.85	0.05	0.93	0.98	—	5,343	5,343	0.09	0.43	3.05	5,476
2034	1.02	0.93	4.84	10.9	0.03	0.05	3.79	3.84	0.05	0.93	0.98	—	5,230	5,230	0.09	0.43	2.60	5,363
2035	1.02	0.92	4.72	10.6	0.03	0.05	3.79	3.84	0.05	0.93	0.98	—	5,126	5,126	0.09	0.40	2.19	5,251
2036	1.00	0.92	4.60	10.2	0.03	0.05	3.80	3.85	0.05	0.93	0.98	—	5,046	5,046	0.09	0.41	1.85	5,171
2037	0.98	1.80	4.52	10.1	0.03	0.05	3.86	3.91	0.05	0.95	0.99	—	5,008	5,008	0.09	0.41	1.55	5,132
2038	1.07	8.00	4.59	11.3	0.03	0.05	4.34	4.39	0.05	1.06	1.10	—	5,304	5,304	0.08	0.38	1.42	5,422
2039	0.14	6.98	0.17	1.46	< 0.005	< 0.005	0.55	0.55	< 0.005	0.13	0.13	—	439	439	0.01	< 0.005	0.13	440

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.43	3.73	36.0	33.9	0.05	1.60	7.81	9.41	1.47	3.97	5.45	—	5,461	5,461	0.22	0.05	0.66	5,482
2025	4.02	3.38	31.7	31.1	0.06	1.37	7.81	9.18	1.26	3.97	5.23	—	6,784	6,784	0.28	0.06	0.69	6,810
2026	3.71	3.12	27.3	28.5	0.06	1.12	3.76	4.88	1.03	1.46	2.50	—	6,780	6,780	0.27	0.06	0.62	6,805
2027	3.59	3.02	25.6	28.2	0.06	1.04	3.76	4.80	0.96	1.46	2.42	—	6,776	6,776	0.27	0.06	0.56	6,802
2028	11.9	11.1	46.2	132	0.23	0.71	29.7	30.4	0.69	7.28	7.97	—	52,282	52,282	1.04	4.93	118	53,894
2029	12.1	10.5	50.2	135	0.24	0.92	29.8	30.7	0.88	7.31	8.19	—	52,776	52,776	1.05	4.26	105	54,175
2030	11.6	10.0	47.9	128	0.24	0.89	29.8	30.7	0.85	7.31	8.16	—	51,633	51,633	0.84	4.05	92.4	52,954
2031	10.3	8.74	40.3	112	0.23	0.65	29.7	30.3	0.43	7.28	7.71	—	48,802	48,802	0.72	3.83	80.3	50,042

2032	9.20	8.32	39.0	107	0.23	0.43	29.7	30.1	0.41	7.28	7.69	—	47,741	47,741	0.72	3.83	69.7	48,971
2033	8.68	8.01	37.1	103	0.23	0.41	29.7	30.1	0.39	7.28	7.67	—	46,696	46,696	0.72	3.63	59.7	47,855
2034	8.26	7.60	35.9	99.1	0.23	0.40	29.7	30.1	0.38	7.28	7.66	—	45,721	45,721	0.67	3.63	50.8	46,870
2035	8.13	7.52	35.0	95.5	0.23	0.38	29.7	30.1	0.37	7.28	7.65	—	44,821	44,821	0.67	3.42	43.0	45,901
2036	7.92	7.25	34.2	92.1	0.23	0.37	29.7	30.0	0.36	7.28	7.64	—	44,011	44,011	0.67	3.42	36.0	45,084
2037	7.61	6.95	32.9	90.0	0.23	0.36	29.7	30.0	0.35	7.28	7.63	—	43,294	43,294	0.67	3.42	29.9	44,361
2038	8.63	61.8	33.5	103	0.23	0.36	34.0	34.4	0.35	8.31	8.65	—	46,685	46,685	0.72	3.25	27.8	47,700
2039	1.14	54.8	1.22	14.1	< 0.005	< 0.005	4.37	4.38	< 0.005	1.03	1.03	—	4,082	4,082	0.05	0.04	2.58	4,096
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.42	3.72	36.0	33.7	0.05	1.60	7.81	9.41	1.47	3.97	5.45	—	5,445	5,445	0.22	0.05	0.02	5,465
2025	4.01	3.38	31.7	30.9	0.06	1.37	7.81	9.18	1.26	3.97	5.23	—	6,766	6,766	0.27	0.06	0.02	6,791
2026	3.70	3.12	27.3	28.3	0.06	1.12	3.76	4.88	1.03	1.46	2.50	—	6,762	6,762	0.27	0.06	0.02	6,787
2027	11.9	10.8	51.9	116	0.23	1.04	29.7	30.4	0.96	7.28	8.00	—	51,206	51,206	1.22	5.21	3.47	52,792
2028	12.0	10.5	55.9	120	0.24	0.97	29.8	30.8	0.92	7.31	8.23	—	51,761	51,761	1.22	5.02	3.08	53,291
2029	11.5	9.85	53.9	114	0.24	0.92	29.8	30.7	0.88	7.31	8.19	—	50,657	50,657	1.17	5.00	2.72	52,179
2030	11.0	9.34	51.6	109	0.24	0.89	29.8	30.7	0.85	7.31	8.16	—	49,555	49,555	0.96	4.74	2.39	50,993
2031	9.04	8.12	43.1	92.9	0.23	0.65	29.7	30.3	0.43	7.28	7.71	—	46,773	46,773	0.84	4.52	2.09	48,142
2032	8.70	7.79	41.6	89.5	0.23	0.43	29.7	30.1	0.41	7.28	7.69	—	45,742	45,742	0.84	3.83	1.81	46,907
2033	8.19	7.48	39.7	85.4	0.23	0.41	29.7	30.1	0.39	7.28	7.67	—	44,727	44,727	0.78	3.63	1.55	45,829
2034	7.89	7.24	38.7	82.0	0.23	0.40	29.7	30.1	0.38	7.28	7.66	—	43,778	43,778	0.78	3.63	1.32	44,880
2035	7.75	7.11	37.6	79.3	0.23	0.38	29.7	30.1	0.37	7.28	7.65	—	42,901	42,901	0.78	3.42	1.11	43,942
2036	7.62	6.98	36.1	77.0	0.23	0.37	29.7	30.0	0.36	7.28	7.64	—	42,112	42,112	0.72	3.42	0.94	43,151
2037	8.57	61.7	36.6	86.3	0.23	0.37	34.0	34.4	0.35	8.31	8.66	—	45,188	45,188	0.79	3.46	0.87	46,240
2038	8.22	60.6	36.0	83.9	0.23	0.36	34.0	34.4	0.35	8.31	8.65	—	44,446	44,446	0.76	3.25	0.72	45,435
2039	1.12	54.8	1.39	11.1	< 0.005	< 0.005	4.37	4.38	< 0.005	1.03	1.03	—	3,707	3,707	0.06	0.04	0.07	3,719
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2024	1.32	1.11	10.8	10.1	0.01	0.48	2.34	2.82	0.44	1.19	1.63	—	1,631	1,631	0.07	0.01	0.09	1,638
2025	2.82	2.38	21.9	21.5	0.04	0.93	4.13	5.05	0.85	1.94	2.79	—	4,364	4,364	0.18	0.04	0.20	4,380
2026	2.64	2.23	19.5	20.3	0.04	0.80	2.68	3.48	0.74	1.05	1.78	—	4,833	4,833	0.19	0.04	0.19	4,851
2027	3.32	2.87	20.6	28.3	0.06	0.72	5.01	5.73	0.66	1.57	2.23	—	8,965	8,965	0.27	0.52	5.47	9,132
2028	8.08	7.01	35.2	80.6	0.16	0.53	20.9	21.4	0.51	5.12	5.63	—	36,412	36,412	0.79	3.53	36.6	37,520
2029	8.20	7.01	37.3	82.7	0.17	0.66	20.9	21.5	0.63	5.12	5.75	—	36,533	36,533	0.79	3.53	32.3	37,637
2030	7.65	6.44	33.7	75.3	0.17	0.57	20.8	21.4	0.54	5.11	5.65	—	35,226	35,226	0.62	3.38	28.4	36,277
2031	6.53	5.86	30.1	67.6	0.16	0.47	20.8	21.3	0.31	5.10	5.40	—	33,744	33,744	0.56	2.74	24.8	34,599
2032	6.24	5.61	28.8	65.0	0.16	0.31	20.8	21.1	0.29	5.11	5.41	—	33,093	33,093	0.56	2.75	21.6	33,947
2033	5.84	5.36	27.8	62.5	0.16	0.29	20.8	21.1	0.28	5.10	5.38	—	32,273	32,273	0.56	2.59	18.4	33,078
2034	5.58	5.11	26.5	59.7	0.16	0.28	20.8	21.1	0.27	5.10	5.37	—	31,591	31,591	0.52	2.59	15.7	32,392
2035	5.57	5.05	25.9	58.0	0.16	0.27	20.8	21.1	0.26	5.10	5.36	—	30,961	30,961	0.52	2.44	13.2	31,716
2036	5.49	5.02	25.2	56.1	0.16	0.27	20.8	21.1	0.26	5.11	5.37	—	30,477	30,477	0.52	2.45	11.2	31,232
2037	5.37	9.84	24.8	55.5	0.16	0.26	21.2	21.4	0.25	5.19	5.44	—	30,247	30,247	0.52	2.45	9.38	30,999
2038	5.89	43.8	25.1	61.7	0.16	0.26	23.8	24.0	0.25	5.80	6.05	—	32,037	32,037	0.51	2.32	8.57	32,749
2039	0.77	38.3	0.96	7.98	< 0.005	< 0.005	2.99	3.00	< 0.005	0.70	0.70	—	2,652	2,652	0.04	0.02	0.78	2,661
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.24	0.20	1.97	1.84	< 0.005	0.09	0.43	0.51	0.08	0.22	0.30	—	270	270	0.01	< 0.005	0.01	271
2025	0.52	0.43	4.00	3.92	0.01	0.17	0.75	0.92	0.16	0.35	0.51	—	723	723	0.03	0.01	0.03	725
2026	0.48	0.41	3.56	3.70	0.01	0.15	0.49	0.64	0.13	0.19	0.33	—	800	800	0.03	0.01	0.03	803
2027	0.61	0.52	3.76	5.17	0.01	0.13	0.91	1.05	0.12	0.29	0.41	—	1,484	1,484	0.04	0.09	0.90	1,512
2028	1.48	1.28	6.43	14.7	0.03	0.10	3.81	3.90	0.09	0.93	1.03	—	6,028	6,028	0.13	0.58	6.06	6,212
2029	1.50	1.28	6.82	15.1	0.03	0.12	3.81	3.93	0.12	0.93	1.05	—	6,049	6,049	0.13	0.58	5.34	6,231
2030	1.40	1.17	6.15	13.8	0.03	0.10	3.80	3.91	0.10	0.93	1.03	—	5,832	5,832	0.10	0.56	4.71	6,006
2031	1.19	1.07	5.49	12.3	0.03	0.09	3.79	3.88	0.06	0.93	0.99	—	5,587	5,587	0.09	0.45	4.11	5,728
2032	1.14	1.02	5.25	11.9	0.03	0.06	3.80	3.86	0.05	0.93	0.99	—	5,479	5,479	0.09	0.45	3.57	5,620
2033	1.07	0.98	5.08	11.4	0.03	0.05	3.79	3.85	0.05	0.93	0.98	—	5,343	5,343	0.09	0.43	3.05	5,476

2034	1.02	0.93	4.84	10.9	0.03	0.05	3.79	3.84	0.05	0.93	0.98	—	5,230	5,230	0.09	0.43	2.60	5,363
2035	1.02	0.92	4.72	10.6	0.03	0.05	3.79	3.84	0.05	0.93	0.98	—	5,126	5,126	0.09	0.40	2.19	5,251
2036	1.00	0.92	4.60	10.2	0.03	0.05	3.80	3.85	0.05	0.93	0.98	—	5,046	5,046	0.09	0.41	1.85	5,171
2037	0.98	1.80	4.52	10.1	0.03	0.05	3.86	3.91	0.05	0.95	0.99	—	5,008	5,008	0.09	0.41	1.55	5,132
2038	1.07	8.00	4.59	11.3	0.03	0.05	4.34	4.39	0.05	1.06	1.10	—	5,304	5,304	0.08	0.38	1.42	5,422
2039	0.14	6.98	0.17	1.46	< 0.005	< 0.005	0.55	0.55	< 0.005	0.13	0.13	—	439	439	0.01	< 0.005	0.13	440

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	171	297	547	1,676	7.42	9.88	577	587	9.38	148	158	6,104	832,838	838,942	639	74.2	25,206	902,231
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	118	247	590	1,154	7.07	9.41	577	587	9.03	148	157	6,104	797,626	803,730	640	75.5	24,714	866,955
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	142	269	572	1,311	7.15	9.64	566	576	9.20	146	155	6,104	806,051	812,155	640	74.9	24,919	875,381
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	25.9	49.2	104	239	1.31	1.76	103	105	1.68	26.6	28.3	1,011	133,451	134,462	106	12.4	4,126	144,929

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
--------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	120	109	525	1,389	7.29	7.95	577	585	7.57	148	156	—	757,640	757,640	11.4	66.5	505	778,252
Area	48.3	186	2.28	271	0.02	0.48	—	0.48	0.36	—	0.36	—	1,115	1,115	0.05	0.01	—	1,119
Energy	2.10	1.05	19.1	16.0	0.11	1.45	—	1.45	1.45	—	1.45	—	71,498	71,498	9.90	1.00	—	72,043
Water	—	—	—	—	—	—	—	—	—	—	—	2,719	2,585	5,305	279	6.68	—	14,275
Waste	—	—	—	—	—	—	—	—	—	—	—	3,385	0.00	3,385	338	0.00	—	11,842
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,701	24,701
Total	171	297	547	1,676	7.42	9.88	577	587	9.38	148	158	6,104	832,838	838,942	639	74.2	25,206	902,231
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	116	105	571	1,138	6.95	7.96	577	585	7.58	148	156	—	723,542	723,542	12.6	67.9	13.1	744,094
Area	—	142	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	2.10	1.05	19.1	16.0	0.11	1.45	—	1.45	1.45	—	1.45	—	71,498	71,498	9.90	1.00	—	72,043
Water	—	—	—	—	—	—	—	—	—	—	—	2,719	2,585	5,305	279	6.68	—	14,275
Waste	—	—	—	—	—	—	—	—	—	—	—	3,385	0.00	3,385	338	0.00	—	11,842
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,701	24,701
Total	118	247	590	1,154	7.07	9.41	577	587	9.03	148	157	6,104	797,626	803,730	640	75.5	24,714	866,955
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	116	105	552	1,162	7.03	7.95	566	574	7.57	146	153	—	731,418	731,418	12.1	67.2	218	751,969
Area	23.8	164	1.12	134	0.01	0.24	—	0.24	0.18	—	0.18	—	550	550	0.02	< 0.005	—	552
Energy	2.10	1.05	19.1	16.0	0.11	1.45	—	1.45	1.45	—	1.45	—	71,498	71,498	9.90	1.00	—	72,043
Water	—	—	—	—	—	—	—	—	—	—	—	2,719	2,585	5,305	279	6.68	—	14,275
Waste	—	—	—	—	—	—	—	—	—	—	—	3,385	0.00	3,385	338	0.00	—	11,842
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,701	24,701
Total	142	269	572	1,311	7.15	9.64	566	576	9.20	146	155	6,104	806,051	812,155	640	74.9	24,919	875,381

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	21.2	19.1	101	212	1.28	1.45	103	105	1.38	26.6	28.0	—	121,095	121,095	2.00	11.1	36.1	124,497
Area	4.34	29.9	0.21	24.4	< 0.005	0.04	—	0.04	0.03	—	0.03	—	91.0	91.0	< 0.005	< 0.005	—	91.3
Energy	0.38	0.19	3.49	2.93	0.02	0.26	—	0.26	0.26	—	0.26	—	11,837	11,837	1.64	0.17	—	11,928
Water	—	—	—	—	—	—	—	—	—	—	—	450	428	878	46.2	1.11	—	2,363
Waste	—	—	—	—	—	—	—	—	—	—	—	560	0.00	560	56.0	0.00	—	1,961
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,089	4,089
Total	25.9	49.2	104	239	1.31	1.76	103	105	1.68	26.6	28.3	1,011	133,451	134,462	106	12.4	4,126	144,929

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	120	109	525	1,389	7.29	7.95	577	585	7.57	148	156	—	757,640	757,640	11.4	66.5	505	778,252
Area	48.3	186	2.28	271	0.02	0.48	—	0.48	0.36	—	0.36	—	1,115	1,115	0.05	0.01	—	1,119
Energy	2.10	1.05	19.1	16.0	0.11	1.45	—	1.45	1.45	—	1.45	—	71,498	71,498	9.90	1.00	—	72,043
Water	—	—	—	—	—	—	—	—	—	—	—	2,719	2,585	5,305	279	6.68	—	14,275
Waste	—	—	—	—	—	—	—	—	—	—	—	3,385	0.00	3,385	338	0.00	—	11,842
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,701	24,701
Total	171	297	547	1,676	7.42	9.88	577	587	9.38	148	158	6,104	832,838	838,942	639	74.2	25,206	902,231
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	116	105	571	1,138	6.95	7.96	577	585	7.58	148	156	—	723,542	723,542	12.6	67.9	13.1	744,094
Area	—	142	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	2.10	1.05	19.1	16.0	0.11	1.45	—	1.45	1.45	—	1.45	—	71,498	71,498	9.90	1.00	—	72,043
Water	—	—	—	—	—	—	—	—	—	—	—	2,719	2,585	5,305	279	6.68	—	14,275

Waste	—	—	—	—	—	—	—	—	—	—	—	3,385	0.00	3,385	338	0.00	—	11,842
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,701	24,701
Total	118	247	590	1,154	7.07	9.41	577	587	9.03	148	157	6,104	797,626	803,730	640	75.5	24,714	866,955
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	116	105	552	1,162	7.03	7.95	566	574	7.57	146	153	—	731,418	731,418	12.1	67.2	218	751,969
Area	23.8	164	1.12	134	0.01	0.24	—	0.24	0.18	—	0.18	—	550	550	0.02	< 0.005	—	552
Energy	2.10	1.05	19.1	16.0	0.11	1.45	—	1.45	1.45	—	1.45	—	71,498	71,498	9.90	1.00	—	72,043
Water	—	—	—	—	—	—	—	—	—	—	—	2,719	2,585	5,305	279	6.68	—	14,275
Waste	—	—	—	—	—	—	—	—	—	—	—	3,385	0.00	3,385	338	0.00	—	11,842
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,701	24,701
Total	142	269	572	1,311	7.15	9.64	566	576	9.20	146	155	6,104	806,051	812,155	640	74.9	24,919	875,381
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	21.2	19.1	101	212	1.28	1.45	103	105	1.38	26.6	28.0	—	121,095	121,095	2.00	11.1	36.1	124,497
Area	4.34	29.9	0.21	24.4	< 0.005	0.04	—	0.04	0.03	—	0.03	—	91.0	91.0	< 0.005	< 0.005	—	91.3
Energy	0.38	0.19	3.49	2.93	0.02	0.26	—	0.26	0.26	—	0.26	—	11,837	11,837	1.64	0.17	—	11,928
Water	—	—	—	—	—	—	—	—	—	—	—	450	428	878	46.2	1.11	—	2,363
Waste	—	—	—	—	—	—	—	—	—	—	—	560	0.00	560	56.0	0.00	—	1,961
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,089	4,089
Total	25.9	49.2	104	239	1.31	1.76	103	105	1.68	26.6	28.3	1,011	133,451	134,462	106	12.4	4,126	144,929

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.30	1.09	10.8	9.86	0.01	0.48	—	0.48	0.44	—	0.44	—	1,586	1,586	0.06	0.01	—	1,591
Dust From Material Movement	—	—	—	—	—	—	5.89	5.89	—	3.02	3.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	1.96	1.80	< 0.005	0.09	—	0.09	0.08	—	0.08	—	263	263	0.01	< 0.005	—	263

Dust From Material Movement:	—	—	—	—	—	—	1.07	1.07	—	0.55	0.55	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.05	1.00	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	165	165	0.01	0.01	0.66	168
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.79	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	149	149	0.01	0.01	0.02	152
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.24	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	45.9	45.9	< 0.005	< 0.005	0.09	46.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.59	7.59	< 0.005	< 0.005	0.01	7.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.30	1.09	10.8	9.86	0.01	0.48	—	0.48	0.44	—	0.44	—	1,586	1,586	0.06	0.01	—	1,591
Dust From Material Movement	—	—	—	—	—	—	2.30	2.30	—	1.18	1.18	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	1.96	1.80	< 0.005	0.09	—	0.09	0.08	—	0.08	—	263	263	0.01	< 0.005	—	263
Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.05	1.00	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	165	165	0.01	0.01	0.66	168
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.79	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	149	149	0.01	0.01	0.02	152
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.24	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	45.9	45.9	< 0.005	< 0.005	0.09	46.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.59	7.59	< 0.005	< 0.005	0.01	7.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.40	1.18	11.3	10.7	0.02	0.49	—	0.49	0.45	—	0.45	—	1,886	1,886	0.08	0.02	—	1,892
Dust From Material Movement	—	—	—	—	—	—	7.00	7.00	—	3.60	3.60	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.22	2.06	1.96	< 0.005	0.09	—	0.09	0.08	—	0.08	—	312	312	0.01	< 0.005	—	313
Dust From Material Movement	—	—	—	—	—	—	1.28	1.28	—	0.66	0.66	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.91	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	162	162	0.01	0.01	0.60	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.72	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	146	146	< 0.005	0.01	0.02	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.26	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	53.4	53.4	< 0.005	< 0.005	0.09	54.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.84	8.84	< 0.005	< 0.005	0.02	8.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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3.4. Site Preparation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.40	1.18	11.3	10.7	0.02	0.49	—	0.49	0.45	—	0.45	—	1,886	1,886	0.08	0.02	—	1,892

Dust From Material Movement	—	—	—	—	—	—	2.73	2.73	—	1.40	1.40	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.22	2.06	1.96	< 0.005	0.09	—	0.09	0.08	—	0.08	—	312	312	0.01	< 0.005	—	313
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.26	0.26	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.91	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	162	162	0.01	0.01	0.60	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.72	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	146	146	< 0.005	0.01	0.02	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.26	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	53.4	53.4	< 0.005	< 0.005	0.09	54.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.84	8.84	< 0.005	< 0.005	0.02	8.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.36	1.14	10.6	10.1	0.02	0.44	—	0.44	0.41	—	0.41	—	2,363	2,363	0.10	0.02	—	2,371
Dust From Material Movement	—	—	—	—	—	—	3.30	3.30	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.94	1.85	< 0.005	0.08	—	0.08	0.07	—	0.07	—	391	391	0.02	< 0.005	—	393
Dust From Material Movement	—	—	—	—	—	—	0.60	0.60	—	0.24	0.24	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.04	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	185	185	0.01	0.01	0.69	188
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.83	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	167	167	< 0.005	0.01	0.02	169
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.30	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	61.4	61.4	< 0.005	< 0.005	0.11	62.3

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.02	10.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.36	1.14	10.6	10.1	0.02	0.44	—	0.44	0.41	—	0.41	—	2,363	2,363	0.10	0.02	—	2,371
Dust From Material Movement	—	—	—	—	—	—	1.29	1.29	—	0.51	0.51	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.94	1.85	< 0.005	0.08	—	0.08	0.07	—	0.07	—	391	391	0.02	< 0.005	—	393
Dust From Material Movement	—	—	—	—	—	—	0.23	0.23	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.04	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	185	185	0.01	0.01	0.69	188
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.83	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	167	167	< 0.005	0.01	0.02	169
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.30	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	61.4	61.4	< 0.005	< 0.005	0.11	62.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.02	10.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621

Dust From Material Movement:	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.59	2.17	19.4	19.7	0.04	0.80	—	0.80	0.74	—	0.74	—	4,713	4,713	0.19	0.04	—	4,729
Dust From Material Movement:	—	—	—	—	—	—	6.57	6.57	—	2.61	2.61	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	0.40	3.55	3.59	0.01	0.15	—	0.15	0.13	—	0.13	—	780	780	0.03	0.01	—	783
Dust From Material Movement:	—	—	—	—	—	—	1.20	1.20	—	0.48	0.48	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.05	0.96	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	181	181	< 0.005	0.01	0.62	184
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.08	0.07	0.06	0.76	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	164	164	< 0.005	0.01	0.02	166
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.56	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	120	120	< 0.005	0.01	0.19	122
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	19.8	19.8	< 0.005	< 0.005	0.03	20.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Grading (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.59	2.17	19.4	19.7	0.04	0.80	—	0.80	0.74	—	0.74	—	4,713	4,713	0.19	0.04	—	4,729
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.02	1.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	0.40	3.55	3.59	0.01	0.15	—	0.15	0.13	—	0.13	—	780	780	0.03	0.01	—	783
Dust From Material Movement	—	—	—	—	—	—	0.47	0.47	—	0.19	0.19	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.05	0.96	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	181	181	< 0.005	0.01	0.62	184
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.76	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	164	164	< 0.005	0.01	0.02	166
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.56	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	120	120	< 0.005	0.01	0.19	122
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	19.8	19.8	< 0.005	< 0.005	0.03	20.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.51	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.51	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.18	1.83	15.9	17.0	0.04	0.65	—	0.65	0.60	—	0.60	—	4,106	4,106	0.17	0.03	—	4,120
Dust From Material Movement	—	—	—	—	—	—	5.73	5.73	—	2.27	2.27	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40	0.33	2.91	3.10	0.01	0.12	—	0.12	0.11	—	0.11	—	680	680	0.03	0.01	—	682
Dust From Material Movement	—	—	—	—	—	—	1.05	1.05	—	0.41	0.41	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.04	0.90	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	178	178	< 0.005	0.01	0.56	181

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.06	0.70	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	161	161	< 0.005	0.01	0.01	163
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.45	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	103	103	< 0.005	< 0.005	0.15	104
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.0	17.0	< 0.005	< 0.005	0.02	17.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Grading (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.51	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621

Dust From Material Movement:	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.51	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement:	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.18	1.83	15.9	17.0	0.04	0.65	—	0.65	0.60	—	0.60	—	4,106	4,106	0.17	0.03	—	4,120
Dust From Material Movement:	—	—	—	—	—	—	2.23	2.23	—	0.89	0.89	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40	0.33	2.91	3.10	0.01	0.12	—	0.12	0.11	—	0.11	—	680	680	0.03	0.01	—	682
Dust From Material Movement:	—	—	—	—	—	—	0.41	0.41	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.04	0.90	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	178	178	< 0.005	0.01	0.56	181
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.06	0.70	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	161	161	< 0.005	0.01	0.01	163
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.45	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	103	103	< 0.005	< 0.005	0.15	104
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.0	17.0	< 0.005	< 0.005	0.02	17.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.86	1.19	< 0.005	0.03	—	0.03	0.03	—	0.03	—	220	220	0.01	< 0.005	—	221
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.5	36.5	< 0.005	< 0.005	—	36.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	9.17	8.94	7.47	91.8	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,981	20,981	0.57	0.91	1.88	21,269
Vendor	1.45	0.86	35.1	11.5	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	27,828	27,828	0.54	4.28	1.59	29,118
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.84	0.82	0.61	8.69	0.00	0.00	1.97	1.97	0.00	0.46	0.46	—	1,978	1,978	0.04	0.08	2.89	2,007
Vendor	0.14	0.08	3.16	1.04	0.02	0.04	0.71	0.74	0.04	0.20	0.23	—	2,558	2,558	0.05	0.39	2.43	2,679
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.15	0.11	1.59	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	327	327	0.01	0.01	0.48	332
Vendor	0.02	0.01	0.58	0.19	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	424	424	0.01	0.07	0.40	444
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.86	1.19	< 0.005	0.03	—	0.03	0.03	—	0.03	—	220	220	0.01	< 0.005	—	221
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.5	36.5	< 0.005	< 0.005	—	36.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	9.17	8.94	7.47	91.8	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,981	20,981	0.57	0.91	1.88	21,269
Vendor	1.45	0.86	35.1	11.5	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	27,828	27,828	0.54	4.28	1.59	29,118
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.84	0.82	0.61	8.69	0.00	0.00	1.97	1.97	0.00	0.46	0.46	—	1,978	1,978	0.04	0.08	2.89	2,007
Vendor	0.14	0.08	3.16	1.04	0.02	0.04	0.71	0.74	0.04	0.20	0.23	—	2,558	2,558	0.05	0.39	2.43	2,679
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.15	0.11	1.59	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	327	327	0.01	0.01	0.48	332
Vendor	0.02	0.01	0.58	0.19	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	424	424	0.01	0.07	0.40	444
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	0.71	6.39	9.26	0.02	0.22	—	0.22	0.20	—	0.20	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.17	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	9.40	9.23	5.64	108	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	22,755	22,755	0.40	0.85	65.1	23,084
Vendor	1.27	0.88	31.6	10.6	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	27,130	27,130	0.54	4.05	53.3	28,404
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.71	7.80	6.67	85.8	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,578	20,578	0.52	0.91	1.69	20,864
Vendor	1.25	0.84	33.7	11.0	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	27,156	27,156	0.54	4.07	1.38	28,385
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	6.28	5.63	4.65	62.6	0.00	0.00	15.4	15.4	0.00	3.59	3.59	—	15,105	15,105	0.33	0.61	20.1	15,316
Vendor	0.88	0.60	23.6	7.72	0.15	0.29	5.49	5.78	0.29	1.52	1.81	—	19,439	19,439	0.39	2.90	16.5	20,330
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.15	1.03	0.85	11.4	0.00	0.00	2.80	2.80	0.00	0.66	0.66	—	2,501	2,501	0.05	0.10	3.33	2,536
Vendor	0.16	0.11	4.30	1.41	0.03	0.05	1.00	1.06	0.05	0.28	0.33	—	3,218	3,218	0.06	0.48	2.72	3,366
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	0.71	6.39	9.26	0.02	0.22	—	0.22	0.20	—	0.20	—	1,717	1,717	0.07	0.01	—	1,723

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.17	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	284	284	0.01	< 0.005	—	285	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	9.40	9.23	5.64	108	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	22,755	22,755	0.40	0.85	65.1	23,084	
Vendor	1.27	0.88	31.6	10.6	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	27,130	27,130	0.54	4.05	53.3	28,404	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.71	7.80	6.67	85.8	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,578	20,578	0.52	0.91	1.69	20,864	
Vendor	1.25	0.84	33.7	11.0	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	27,156	27,156	0.54	4.07	1.38	28,385	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.28	5.63	4.65	62.6	0.00	0.00	15.4	15.4	0.00	3.59	3.59	—	15,105	15,105	0.33	0.61	20.1	15,316	
Vendor	0.88	0.60	23.6	7.72	0.15	0.29	5.49	5.78	0.29	1.52	1.81	—	19,439	19,439	0.39	2.90	16.5	20,330	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.15	1.03	0.85	11.4	0.00	0.00	2.80	2.80	0.00	0.66	0.66	—	2,501	2,501	0.05	0.10	3.33	2,536	
Vendor	0.16	0.11	4.30	1.41	0.03	0.05	1.00	1.06	0.05	0.28	0.33	—	3,218	3,218	0.06	0.48	2.72	3,366	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.69	6.13	9.22	0.02	0.20	—	0.20	0.18	—	0.18	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.12	1.68	< 0.005	0.04	—	0.04	0.03	—	0.03	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.88	8.03	4.90	101	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	22,335	22,335	0.34	0.17	58.0	22,452
Vendor	1.25	0.66	30.3	10.4	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	26,405	26,405	0.54	4.05	46.3	27,672
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.37	7.45	6.56	79.9	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,202	20,202	0.46	0.91	1.50	20,487
Vendor	1.18	0.61	32.3	10.7	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	26,431	26,431	0.54	4.05	1.20	27,653
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.89	5.28	4.07	58.5	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	14,789	14,789	0.29	0.61	17.8	14,996
Vendor	0.87	0.45	22.5	7.51	0.15	0.29	5.48	5.77	0.29	1.52	1.81	—	18,868	18,868	0.39	2.89	14.3	19,755
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.08	0.96	0.74	10.7	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,448	2,448	0.05	0.10	2.95	2,483
Vendor	0.16	0.08	4.11	1.37	0.03	0.05	1.00	1.05	0.05	0.28	0.33	—	3,124	3,124	0.06	0.48	2.37	3,271
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Building Construction (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.15	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.69	6.13	9.22	0.02	0.20	—	0.20	0.18	—	0.18	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.12	1.68	< 0.005	0.04	—	0.04	0.03	—	0.03	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.88	8.03	4.90	101	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	22,335	22,335	0.34	0.17	58.0	22,452
Vendor	1.25	0.66	30.3	10.4	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	26,405	26,405	0.54	4.05	46.3	27,672
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.37	7.45	6.56	79.9	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,202	20,202	0.46	0.91	1.50	20,487

Vendor	1.18	0.61	32.3	10.7	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	26,431	26,431	0.54	4.05	1.20	27,653
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.89	5.28	4.07	58.5	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	14,789	14,789	0.29	0.61	17.8	14,996
Vendor	0.87	0.45	22.5	7.51	0.15	0.29	5.48	5.77	0.29	1.52	1.81	—	18,868	18,868	0.39	2.89	14.3	19,755
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.08	0.96	0.74	10.7	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,448	2,448	0.05	0.10	2.95	2,483
Vendor	0.16	0.08	4.11	1.37	0.03	0.05	1.00	1.05	0.05	0.28	0.33	—	3,124	3,124	0.06	0.48	2.37	3,271
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.12	0.94	8.39	12.9	0.02	0.26	—	0.26	0.24	—	0.24	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.12	0.94	8.39	12.9	0.02	0.26	—	0.26	0.24	—	0.24	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	5.99	9.20	0.02	0.19	—	0.19	0.17	—	0.17	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.09	1.68	< 0.005	0.03	—	0.03	0.03	—	0.03	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.42	7.63	4.16	94.8	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	21,963	21,963	0.34	0.17	51.3	22,074
Vendor	1.25	0.66	29.1	10.1	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	25,636	25,636	0.34	3.85	40.7	26,831
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	7.85	7.00	5.82	75.0	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	19,871	19,871	0.46	0.85	1.33	20,139
Vendor	1.18	0.61	31.1	10.5	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	25,662	25,662	0.34	3.85	1.05	26,818
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.65	5.00	3.54	54.7	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	14,545	14,545	0.29	0.61	15.8	14,750
Vendor	0.87	0.45	21.7	7.34	0.15	0.29	5.48	5.77	0.29	1.52	1.81	—	18,319	18,319	0.24	2.75	12.6	19,156
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.03	0.91	0.65	9.98	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,408	2,408	0.05	0.10	2.62	2,442

Vendor	0.16	0.08	3.95	1.34	0.03	0.05	1.00	1.05	0.05	0.28	0.33	—	3,033	3,033	0.04	0.45	2.08	3,172
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Building Construction (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.12	0.94	8.39	12.9	0.02	0.26	—	0.26	0.24	—	0.24	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.12	0.94	8.39	12.9	0.02	0.26	—	0.26	0.24	—	0.24	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	5.99	9.20	0.02	0.19	—	0.19	0.17	—	0.17	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.09	1.68	< 0.005	0.03	—	0.03	0.03	—	0.03	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	8.42	7.63	4.16	94.8	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	21,963	21,963	0.34	0.17	51.3	22,074
Vendor	1.25	0.66	29.1	10.1	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	25,636	25,636	0.34	3.85	40.7	26,831
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	7.85	7.00	5.82	75.0	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	19,871	19,871	0.46	0.85	1.33	20,139
Vendor	1.18	0.61	31.1	10.5	0.20	0.41	7.80	8.21	0.41	2.15	2.56	—	25,662	25,662	0.34	3.85	1.05	26,818
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.65	5.00	3.54	54.7	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	14,545	14,545	0.29	0.61	15.8	14,750
Vendor	0.87	0.45	21.7	7.34	0.15	0.29	5.48	5.77	0.29	1.52	1.81	—	18,319	18,319	0.24	2.75	12.6	19,156
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.03	0.91	0.65	9.98	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,408	2,408	0.05	0.10	2.62	2,442
Vendor	0.16	0.08	3.95	1.34	0.03	0.05	1.00	1.05	0.05	0.28	0.33	—	3,033	3,033	0.04	0.45	2.08	3,172
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.10	0.92	8.12	12.8	0.02	0.24	—	0.24	0.22	—	0.22	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10	0.92	8.12	12.8	0.02	0.24	—	0.24	0.22	—	0.22	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.66	5.80	9.18	0.02	0.17	—	0.17	0.16	—	0.16	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.06	1.67	< 0.005	0.03	—	0.03	0.03	—	0.03	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	7.97	7.17	4.05	89.0	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	21,574	21,574	0.29	0.17	45.2	21,678
Vendor	1.25	0.66	28.1	9.87	0.20	0.41	7.80	8.21	0.20	2.15	2.36	—	24,831	24,831	0.34	3.64	35.2	25,960
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.77	6.59	5.02	70.1	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	19,519	19,519	0.40	0.85	1.17	19,785

Vendor	1.18	0.61	29.9	9.98	0.20	0.41	7.80	8.21	0.20	2.15	2.36	—	24,857	24,857	0.34	3.64	0.91	25,952
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.87	4.75	3.46	51.4	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	14,288	14,288	0.25	0.12	13.9	14,345
Vendor	0.87	0.45	20.8	7.00	0.15	0.29	5.48	5.77	0.15	1.52	1.66	—	17,744	17,744	0.24	2.60	10.9	18,536
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.89	0.87	0.63	9.38	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,366	2,366	0.04	0.02	2.31	2,375
Vendor	0.16	0.08	3.80	1.28	0.03	0.05	1.00	1.05	0.03	0.28	0.30	—	2,938	2,938	0.04	0.43	1.80	3,069
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Building Construction (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10	0.92	8.12	12.8	0.02	0.24	—	0.24	0.22	—	0.22	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10	0.92	8.12	12.8	0.02	0.24	—	0.24	0.22	—	0.22	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.66	5.80	9.18	0.02	0.17	—	0.17	0.16	—	0.16	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.06	1.67	< 0.005	0.03	—	0.03	0.03	—	0.03	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	7.97	7.17	4.05	89.0	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	21,574	21,574	0.29	0.17	45.2	21,678
Vendor	1.25	0.66	28.1	9.87	0.20	0.41	7.80	8.21	0.20	2.15	2.36	—	24,831	24,831	0.34	3.64	35.2	25,960
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.77	6.59	5.02	70.1	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	19,519	19,519	0.40	0.85	1.17	19,785
Vendor	1.18	0.61	29.9	9.98	0.20	0.41	7.80	8.21	0.20	2.15	2.36	—	24,857	24,857	0.34	3.64	0.91	25,952
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.87	4.75	3.46	51.4	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	14,288	14,288	0.25	0.12	13.9	14,345
Vendor	0.87	0.45	20.8	7.00	0.15	0.29	5.48	5.77	0.15	1.52	1.66	—	17,744	17,744	0.24	2.60	10.9	18,536
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.89	0.87	0.63	9.38	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,366	2,366	0.04	0.02	2.31	2,375

Vendor	0.16	0.08	3.80	1.28	0.03	0.05	1.00	1.05	0.03	0.28	0.30	—	2,938	2,938	0.04	0.43	1.80	3,069
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Building Construction (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	0.90	7.87	12.8	0.02	0.22	—	0.22	0.21	—	0.21	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	0.90	7.87	12.8	0.02	0.22	—	0.22	0.21	—	0.21	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	0.64	5.64	9.16	0.02	0.16	—	0.16	0.15	—	0.15	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.03	1.67	< 0.005	0.03	—	0.03	0.03	—	0.03	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.88	6.77	3.99	84.7	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	21,301	21,301	0.29	0.17	39.5	21,399
Vendor	1.25	0.66	27.1	9.65	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	24,043	24,043	0.34	3.64	30.2	25,167
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.48	6.31	4.96	66.7	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	19,276	19,276	0.40	0.17	1.02	19,338
Vendor	1.16	0.59	28.8	9.96	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	24,069	24,069	0.34	3.64	0.78	25,164
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.60	4.52	2.94	48.8	0.00	0.00	15.4	15.4	0.00	3.59	3.59	—	14,148	14,148	0.25	0.12	12.2	14,203
Vendor	0.88	0.45	20.2	7.02	0.15	0.15	5.49	5.64	0.15	1.52	1.67	—	17,228	17,228	0.24	2.61	9.34	18,021
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.84	0.82	0.54	8.90	0.00	0.00	2.80	2.80	0.00	0.66	0.66	—	2,342	2,342	0.04	0.02	2.03	2,352
Vendor	0.16	0.08	3.69	1.28	0.03	0.03	1.00	1.03	0.03	0.28	0.30	—	2,852	2,852	0.04	0.43	1.55	2,984
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.22. Building Construction (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.07	0.90	7.87	12.8	0.02	0.22	—	0.22	0.21	—	0.21	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	0.90	7.87	12.8	0.02	0.22	—	0.22	0.21	—	0.21	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	0.64	5.64	9.16	0.02	0.16	—	0.16	0.15	—	0.15	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.03	1.67	< 0.005	0.03	—	0.03	0.03	—	0.03	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.88	6.77	3.99	84.7	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	21,301	21,301	0.29	0.17	39.5	21,399
Vendor	1.25	0.66	27.1	9.65	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	24,043	24,043	0.34	3.64	30.2	25,167
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.48	6.31	4.96	66.7	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	19,276	19,276	0.40	0.17	1.02	19,338

Vendor	1.16	0.59	28.8	9.96	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	24,069	24,069	0.34	3.64	0.78	25,164
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.60	4.52	2.94	48.8	0.00	0.00	15.4	15.4	0.00	3.59	3.59	—	14,148	14,148	0.25	0.12	12.2	14,203
Vendor	0.88	0.45	20.2	7.02	0.15	0.15	5.49	5.64	0.15	1.52	1.67	—	17,228	17,228	0.24	2.61	9.34	18,021
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.84	0.82	0.54	8.90	0.00	0.00	2.80	2.80	0.00	0.66	0.66	—	2,342	2,342	0.04	0.02	2.03	2,352
Vendor	0.16	0.08	3.69	1.28	0.03	0.03	1.00	1.03	0.03	0.28	0.30	—	2,852	2,852	0.04	0.43	1.55	2,984
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Building Construction (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.05	0.88	7.67	12.8	0.02	0.20	—	0.20	0.19	—	0.19	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.05	0.88	7.67	12.8	0.02	0.20	—	0.20	0.19	—	0.19	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	0.63	5.48	9.13	0.02	0.15	—	0.15	0.13	—	0.13	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	1.00	1.67	< 0.005	0.03	—	0.03	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.59	6.48	3.25	80.6	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	21,009	21,009	0.29	0.17	34.4	21,102
Vendor	1.04	0.66	26.2	9.44	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	23,290	23,290	0.34	3.44	25.3	24,348
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.19	6.02	4.22	62.8	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	19,013	19,013	0.34	0.17	0.89	19,074
Vendor	0.95	0.59	27.8	9.76	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	23,317	23,317	0.34	3.44	0.66	24,350
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.38	4.30	2.89	46.5	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	13,917	13,917	0.25	0.12	10.6	13,971
Vendor	0.71	0.44	19.5	6.84	0.15	0.15	5.48	5.62	0.15	1.52	1.66	—	16,644	16,644	0.24	2.45	7.81	17,389
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.80	0.78	0.53	8.49	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,304	2,304	0.04	0.02	1.75	2,313

Vendor	0.13	0.08	3.55	1.25	0.03	0.03	1.00	1.03	0.03	0.28	0.30	—	2,756	2,756	0.04	0.41	1.29	2,879
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.24. Building Construction (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.05	0.88	7.67	12.8	0.02	0.20	—	0.20	0.19	—	0.19	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.05	0.88	7.67	12.8	0.02	0.20	—	0.20	0.19	—	0.19	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	0.63	5.48	9.13	0.02	0.15	—	0.15	0.13	—	0.13	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	1.00	1.67	< 0.005	0.03	—	0.03	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.59	6.48	3.25	80.6	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	21,009	21,009	0.29	0.17	34.4	21,102
Vendor	1.04	0.66	26.2	9.44	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	23,290	23,290	0.34	3.44	25.3	24,348
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.19	6.02	4.22	62.8	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	19,013	19,013	0.34	0.17	0.89	19,074
Vendor	0.95	0.59	27.8	9.76	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	23,317	23,317	0.34	3.44	0.66	24,350
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.38	4.30	2.89	46.5	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	13,917	13,917	0.25	0.12	10.6	13,971
Vendor	0.71	0.44	19.5	6.84	0.15	0.15	5.48	5.62	0.15	1.52	1.66	—	16,644	16,644	0.24	2.45	7.81	17,389
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.80	0.78	0.53	8.49	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,304	2,304	0.04	0.02	1.75	2,313
Vendor	0.13	0.08	3.55	1.25	0.03	0.03	1.00	1.03	0.03	0.28	0.30	—	2,756	2,756	0.04	0.41	1.29	2,879
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Building Construction (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.03	0.86	7.52	12.8	0.02	0.19	—	0.19	0.18	—	0.18	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	0.86	7.52	12.8	0.02	0.19	—	0.19	0.18	—	0.18	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	0.62	5.37	9.12	0.02	0.14	—	0.14	0.13	—	0.13	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.98	1.66	< 0.005	0.03	—	0.03	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.19	6.08	3.20	77.2	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,746	20,746	0.23	0.17	29.6	20,833
Vendor	1.04	0.66	25.2	9.21	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	22,578	22,578	0.34	3.44	21.3	23,632
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.91	5.79	4.16	59.7	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	18,777	18,777	0.34	0.17	0.77	18,837

Vendor	0.95	0.59	27.1	9.53	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	22,605	22,605	0.34	3.44	0.55	23,638
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.14	4.05	2.36	43.9	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	13,744	13,744	0.20	0.12	9.13	13,795
Vendor	0.71	0.44	18.8	6.69	0.15	0.15	5.48	5.62	0.15	1.52	1.66	—	16,135	16,135	0.24	2.45	6.55	16,879
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.75	0.74	0.43	8.02	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,275	2,275	0.03	0.02	1.51	2,284
Vendor	0.13	0.08	3.43	1.22	0.03	0.03	1.00	1.03	0.03	0.28	0.30	—	2,671	2,671	0.04	0.41	1.08	2,795
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.26. Building Construction (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	0.86	7.52	12.8	0.02	0.19	—	0.19	0.18	—	0.18	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	0.86	7.52	12.8	0.02	0.19	—	0.19	0.18	—	0.18	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	0.62	5.37	9.12	0.02	0.14	—	0.14	0.13	—	0.13	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.98	1.66	< 0.005	0.03	—	0.03	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.19	6.08	3.20	77.2	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,746	20,746	0.23	0.17	29.6	20,833
Vendor	1.04	0.66	25.2	9.21	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	22,578	22,578	0.34	3.44	21.3	23,632
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.91	5.79	4.16	59.7	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	18,777	18,777	0.34	0.17	0.77	18,837
Vendor	0.95	0.59	27.1	9.53	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	22,605	22,605	0.34	3.44	0.55	23,638
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.14	4.05	2.36	43.9	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	13,744	13,744	0.20	0.12	9.13	13,795
Vendor	0.71	0.44	18.8	6.69	0.15	0.15	5.48	5.62	0.15	1.52	1.66	—	16,135	16,135	0.24	2.45	6.55	16,879
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.75	0.74	0.43	8.02	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,275	2,275	0.03	0.02	1.51	2,284

Vendor	0.13	0.08	3.43	1.22	0.03	0.03	1.00	1.03	0.03	0.28	0.30	—	2,671	2,671	0.04	0.41	1.08	2,795
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.27. Building Construction (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.01	0.85	7.34	12.7	0.02	0.18	—	0.18	0.17	—	0.17	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.01	0.85	7.34	12.7	0.02	0.18	—	0.18	0.17	—	0.17	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	0.61	5.24	9.06	0.02	0.13	—	0.13	0.12	—	0.12	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.96	1.65	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.08	6.02	3.20	73.8	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,512	20,512	0.23	0.17	25.4	20,595
Vendor	1.04	0.66	24.5	9.01	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	21,912	21,912	0.34	3.23	17.6	22,901
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.79	5.68	4.11	57.4	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	18,565	18,565	0.34	0.17	0.66	18,626
Vendor	0.95	0.59	26.1	9.30	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	21,939	21,939	0.34	3.23	0.46	22,911
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.14	4.01	2.36	42.4	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	13,589	13,589	0.20	0.12	7.81	13,639
Vendor	0.71	0.44	18.3	6.53	0.15	0.15	5.48	5.62	0.15	1.52	1.66	—	15,660	15,660	0.24	2.31	5.44	16,359
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.75	0.73	0.43	7.74	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,250	2,250	0.03	0.02	1.29	2,258
Vendor	0.13	0.08	3.33	1.19	0.03	0.03	1.00	1.03	0.03	0.28	0.30	—	2,593	2,593	0.04	0.38	0.90	2,708
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.28. Building Construction (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.01	0.85	7.34	12.7	0.02	0.18	—	0.18	0.17	—	0.17	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.01	0.85	7.34	12.7	0.02	0.18	—	0.18	0.17	—	0.17	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	0.61	5.24	9.06	0.02	0.13	—	0.13	0.12	—	0.12	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.96	1.65	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.08	6.02	3.20	73.8	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,512	20,512	0.23	0.17	25.4	20,595
Vendor	1.04	0.66	24.5	9.01	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	21,912	21,912	0.34	3.23	17.6	22,901
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.79	5.68	4.11	57.4	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	18,565	18,565	0.34	0.17	0.66	18,626

Vendor	0.95	0.59	26.1	9.30	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	21,939	21,939	0.34	3.23	0.46	22,911
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.14	4.01	2.36	42.4	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	13,589	13,589	0.20	0.12	7.81	13,639
Vendor	0.71	0.44	18.3	6.53	0.15	0.15	5.48	5.62	0.15	1.52	1.66	—	15,660	15,660	0.24	2.31	5.44	16,359
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.75	0.73	0.43	7.74	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,250	2,250	0.03	0.02	1.29	2,258
Vendor	0.13	0.08	3.33	1.19	0.03	0.03	1.00	1.03	0.03	0.28	0.30	—	2,593	2,593	0.04	0.38	0.90	2,708
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.29. Building Construction (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	0.83	7.12	12.6	0.02	0.17	—	0.17	0.16	—	0.16	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	0.83	7.12	12.6	0.02	0.17	—	0.17	0.16	—	0.16	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	0.60	5.10	9.03	0.02	0.12	—	0.12	0.11	—	0.11	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.93	1.65	< 0.005	0.02	—	0.02	0.02	—	0.02	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.91	5.79	3.14	70.5	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,302	20,302	0.23	0.17	21.6	20,381
Vendor	1.02	0.63	24.0	9.01	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	21,312	21,312	0.34	3.23	14.5	22,298
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.68	5.56	3.37	55.1	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	18,376	18,376	0.29	0.17	0.56	18,435
Vendor	0.95	0.59	25.6	9.28	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	21,340	21,340	0.34	3.23	0.38	22,312
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.07	3.98	2.33	40.5	0.00	0.00	15.4	15.4	0.00	3.59	3.59	—	13,487	13,487	0.21	0.12	6.68	13,536
Vendor	0.71	0.44	17.8	6.55	0.15	0.15	5.49	5.64	0.15	1.52	1.67	—	15,273	15,273	0.24	2.31	4.47	15,973
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74	0.73	0.43	7.40	0.00	0.00	2.80	2.80	0.00	0.66	0.66	—	2,233	2,233	0.03	0.02	1.11	2,241

Vendor	0.13	0.08	3.25	1.20	0.03	0.03	1.00	1.03	0.03	0.28	0.30	—	2,529	2,529	0.04	0.38	0.74	2,645
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.30. Building Construction (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	0.83	7.12	12.6	0.02	0.17	—	0.17	0.16	—	0.16	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	0.83	7.12	12.6	0.02	0.17	—	0.17	0.16	—	0.16	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	0.60	5.10	9.03	0.02	0.12	—	0.12	0.11	—	0.11	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.93	1.65	< 0.005	0.02	—	0.02	0.02	—	0.02	—	284	284	0.01	< 0.005	—	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.91	5.79	3.14	70.5	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,302	20,302	0.23	0.17	21.6	20,381
Vendor	1.02	0.63	24.0	9.01	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	21,312	21,312	0.34	3.23	14.5	22,298
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.68	5.56	3.37	55.1	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	18,376	18,376	0.29	0.17	0.56	18,435
Vendor	0.95	0.59	25.6	9.28	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	21,340	21,340	0.34	3.23	0.38	22,312
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.07	3.98	2.33	40.5	0.00	0.00	15.4	15.4	0.00	3.59	3.59	—	13,487	13,487	0.21	0.12	6.68	13,536
Vendor	0.71	0.44	17.8	6.55	0.15	0.15	5.49	5.64	0.15	1.52	1.67	—	15,273	15,273	0.24	2.31	4.47	15,973
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74	0.73	0.43	7.40	0.00	0.00	2.80	2.80	0.00	0.66	0.66	—	2,233	2,233	0.03	0.02	1.11	2,241
Vendor	0.13	0.08	3.25	1.20	0.03	0.03	1.00	1.03	0.03	0.28	0.30	—	2,529	2,529	0.04	0.38	0.74	2,645
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.31. Building Construction (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.98	0.82	6.99	12.5	0.02	0.16	—	0.16	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98	0.82	6.99	12.5	0.02	0.16	—	0.16	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70	0.58	4.99	8.93	0.02	0.11	—	0.11	0.10	—	0.10	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.91	1.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.62	5.50	2.46	68.7	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,119	20,119	0.23	0.17	18.2	20,194
Vendor	1.02	0.63	23.4	8.80	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	20,778	20,778	0.34	3.23	11.7	21,761
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.45	5.33	3.31	53.0	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	18,210	18,210	0.29	0.17	0.47	18,269

Vendor	0.95	0.59	24.9	9.07	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	20,806	20,806	0.34	3.23	0.30	21,778
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.85	3.77	2.28	39.0	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	13,329	13,329	0.20	0.12	5.64	13,377
Vendor	0.71	0.44	17.4	6.39	0.15	0.15	5.48	5.62	0.15	1.52	1.66	—	14,850	14,850	0.24	2.31	3.60	15,547
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.70	0.69	0.42	7.12	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,207	2,207	0.03	0.02	0.93	2,215
Vendor	0.13	0.08	3.17	1.17	0.03	0.03	1.00	1.03	0.03	0.28	0.30	—	2,459	2,459	0.04	0.38	0.60	2,574
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.32. Building Construction (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98	0.82	6.99	12.5	0.02	0.16	—	0.16	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98	0.82	6.99	12.5	0.02	0.16	—	0.16	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70	0.58	4.99	8.93	0.02	0.11	—	0.11	0.10	—	0.10	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.91	1.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.62	5.50	2.46	68.7	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	20,119	20,119	0.23	0.17	18.2	20,194
Vendor	1.02	0.63	23.4	8.80	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	20,778	20,778	0.34	3.23	11.7	21,761
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.45	5.33	3.31	53.0	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	18,210	18,210	0.29	0.17	0.47	18,269
Vendor	0.95	0.59	24.9	9.07	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	20,806	20,806	0.34	3.23	0.30	21,778
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.85	3.77	2.28	39.0	0.00	0.00	15.3	15.3	0.00	3.58	3.58	—	13,329	13,329	0.20	0.12	5.64	13,377
Vendor	0.71	0.44	17.4	6.39	0.15	0.15	5.48	5.62	0.15	1.52	1.66	—	14,850	14,850	0.24	2.31	3.60	15,547
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.70	0.69	0.42	7.12	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,207	2,207	0.03	0.02	0.93	2,215

Vendor	0.13	0.08	3.17	1.17	0.03	0.03	1.00	1.03	0.03	0.28	0.30	—	2,459	2,459	0.04	0.38	0.60	2,574
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.33. Building Construction (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	0.81	6.89	12.5	0.02	0.15	—	0.15	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	0.81	6.89	12.5	0.02	0.15	—	0.15	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69	0.58	4.91	8.88	0.02	0.11	—	0.11	0.10	—	0.10	—	1,707	1,707	0.07	0.01	—	1,713
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.90	1.62	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.45	5.33	2.40	66.9	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	19,881	19,881	0.23	0.17	15.4	19,953
Vendor	1.02	0.63	22.9	8.80	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	20,297	20,297	0.34	3.03	9.35	21,217
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.16	4.36	3.31	51.0	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	17,992	17,992	0.29	0.17	0.40	18,051
Vendor	0.95	0.59	24.4	9.07	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	20,325	20,325	0.32	3.03	0.24	21,235
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.68	3.59	2.28	38.1	0.00	0.00	15.3	15.3	0.00	3.57	3.57	—	13,134	13,134	0.16	0.12	4.74	13,179
Vendor	0.71	0.43	17.0	6.37	0.15	0.15	5.46	5.61	0.15	1.51	1.66	—	14,467	14,467	0.24	2.16	2.88	15,118
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.67	0.66	0.42	6.95	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,174	2,174	0.03	0.02	0.78	2,182
Vendor	0.13	0.08	3.10	1.16	0.03	0.03	1.00	1.02	0.03	0.28	0.30	—	2,395	2,395	0.04	0.36	0.48	2,503
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.34. Building Construction (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.97	0.81	6.89	12.5	0.02	0.15	—	0.15	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	0.81	6.89	12.5	0.02	0.15	—	0.15	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69	0.58	4.91	8.88	0.02	0.11	—	0.11	0.10	—	0.10	—	1,707	1,707	0.07	0.01	—	1,713
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.90	1.62	< 0.005	0.02	—	0.02	0.02	—	0.02	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.45	5.33	2.40	66.9	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	19,881	19,881	0.23	0.17	15.4	19,953
Vendor	1.02	0.63	22.9	8.80	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	20,297	20,297	0.34	3.03	9.35	21,217
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.16	4.36	3.31	51.0	0.00	0.00	21.9	21.9	0.00	5.13	5.13	—	17,992	17,992	0.29	0.17	0.40	18,051

Vendor	0.95	0.59	24.4	9.07	0.20	0.20	7.80	8.00	0.20	2.15	2.36	—	20,325	20,325	0.32	3.03	0.24	21,235
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.68	3.59	2.28	38.1	0.00	0.00	15.3	15.3	0.00	3.57	3.57	—	13,134	13,134	0.16	0.12	4.74	13,179
Vendor	0.71	0.43	17.0	6.37	0.15	0.15	5.46	5.61	0.15	1.51	1.66	—	14,467	14,467	0.24	2.16	2.88	15,118
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.67	0.66	0.42	6.95	0.00	0.00	2.79	2.79	0.00	0.65	0.65	—	2,174	2,174	0.03	0.02	0.78	2,182
Vendor	0.13	0.08	3.10	1.16	0.03	0.03	1.00	1.02	0.03	0.28	0.30	—	2,395	2,395	0.04	0.36	0.48	2,503
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.35. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.69	6.63	9.91	0.01	0.26	—	0.26	0.24	—	0.24	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.08	0.06	0.61	0.91	< 0.005	0.02	—	0.02	0.02	—	0.02	—	139	139	0.01	< 0.005	—	139
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	23.0	23.0	< 0.005	< 0.005	—	23.1
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.49	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	119	119	< 0.005	0.01	0.01	120
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.85	1.85	< 0.005	< 0.005	< 0.005	1.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.36. Paving (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.69	6.63	9.91	0.01	0.26	—	0.26	0.24	—	0.24	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.61	0.91	< 0.005	0.02	—	0.02	0.02	—	0.02	—	139	139	0.01	< 0.005	—	139
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	23.0	23.0	< 0.005	< 0.005	—	23.1
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.49	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	119	119	< 0.005	0.01	0.01	120
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.85	1.85	< 0.005	< 0.005	< 0.005	1.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.37. Paving (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	6.46	9.92	0.01	0.24	—	0.24	0.22	—	0.22	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	6.46	9.92	0.01	0.24	—	0.24	0.22	—	0.22	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	0.48	4.61	7.08	0.01	0.17	—	0.17	0.16	—	0.16	—	1,079	1,079	0.04	0.01	—	1,083
Paving	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.84	1.29	< 0.005	0.03	—	0.03	0.03	—	0.03	—	179	179	0.01	< 0.005	—	179
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.58	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	129	129	< 0.005	< 0.005	0.33	129
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.46	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	116	116	< 0.005	0.01	0.01	118

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.34	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	85.2	85.2	< 0.005	< 0.005	0.10	86.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	14.1	14.1	< 0.005	< 0.005	0.02	14.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.38. Paving (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	6.46	9.92	0.01	0.24	—	0.24	0.22	—	0.22	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	6.46	9.92	0.01	0.24	—	0.24	0.22	—	0.22	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	0.48	4.61	7.08	0.01	0.17	—	0.17	0.16	—	0.16	—	1,079	1,079	0.04	0.01	—	1,083
Paving	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.84	1.29	< 0.005	0.03	—	0.03	0.03	—	0.03	—	179	179	0.01	< 0.005	—	179
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.58	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	129	129	< 0.005	< 0.005	0.33	129
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.46	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	116	116	< 0.005	0.01	0.01	118
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.34	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	85.2	85.2	< 0.005	< 0.005	0.10	86.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	14.1	14.1	< 0.005	< 0.005	0.02	14.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.39. Paving (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	0.64	6.28	9.90	0.01	0.22	—	0.22	0.20	—	0.20	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	0.64	6.28	9.90	0.01	0.22	—	0.22	0.20	—	0.20	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	0.26	2.51	3.95	0.01	0.09	—	0.09	0.08	—	0.08	—	603	603	0.02	< 0.005	—	605
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.46	0.72	< 0.005	0.02	—	0.02	0.01	—	0.01	—	99.8	99.8	< 0.005	< 0.005	—	100
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.02	0.55	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	127	127	< 0.005	< 0.005	0.30	127
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.43	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	114	114	< 0.005	< 0.005	0.01	116
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	46.8	46.8	< 0.005	< 0.005	0.05	47.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.75	7.75	< 0.005	< 0.005	0.01	7.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.40. Paving (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	0.64	6.28	9.90	0.01	0.22	—	0.22	0.20	—	0.20	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	0.64	6.28	9.90	0.01	0.22	—	0.22	0.20	—	0.20	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	0.26	2.51	3.95	0.01	0.09	—	0.09	0.08	—	0.08	—	603	603	0.02	< 0.005	—	605
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.46	0.72	< 0.005	0.02	—	0.02	0.01	—	0.01	—	99.8	99.8	< 0.005	< 0.005	—	100
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.02	0.55	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	127	127	< 0.005	< 0.005	0.30	127
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.43	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	114	114	< 0.005	< 0.005	0.01	116
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	46.8	46.8	< 0.005	< 0.005	0.05	47.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.75	7.75	< 0.005	< 0.005	0.01	7.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.41. Architectural Coating (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.75	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	53.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.3	12.3	< 0.005	< 0.005	—	12.3
Architect ural Coatings	—	4.95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.03	2.03	< 0.005	< 0.005	—	2.04
Architect ural Coatings	—	0.90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.09	1.07	0.66	10.6	0.00	0.00	4.37	4.37	0.00	1.03	1.03	—	3,642	3,642	0.06	0.03	0.09	3,654
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.06	1.01	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	343	343	0.01	< 0.005	0.15	344
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.18	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	56.8	56.8	< 0.005	< 0.005	0.02	57.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.42. Architectural Coating (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.75	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	53.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.3	12.3	< 0.005	< 0.005	—	12.3
Architectural Coatings	—	4.95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.03	2.03	< 0.005	< 0.005	—	2.04
Architectural Coatings	—	0.90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.09	1.07	0.66	10.6	0.00	0.00	4.37	4.37	0.00	1.03	1.03	—	3,642	3,642	0.06	0.03	0.09	3,654
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.06	1.01	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	343	343	0.01	< 0.005	0.15	344
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.18	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	56.8	56.8	< 0.005	< 0.005	0.02	57.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.43. Architectural Coating (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.75	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	53.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.75	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	53.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.08	0.06	0.53	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	95.4	95.4	< 0.005	< 0.005	—	95.7
Architectural Coatings	—	38.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Architectural Coatings	—	7.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.09	1.07	0.48	13.4	0.00	0.00	4.37	4.37	0.00	1.03	1.03	—	3,976	3,976	0.05	0.03	3.08	3,991
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.03	0.87	0.66	10.2	0.00	0.00	4.37	4.37	0.00	1.03	1.03	—	3,598	3,598	0.06	0.03	0.08	3,610
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74	0.72	0.46	7.64	0.00	0.00	3.06	3.06	0.00	0.72	0.72	—	2,634	2,634	0.03	0.02	0.95	2,643
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.13	0.08	1.39	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	436	436	0.01	< 0.005	0.16	438
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.44. Architectural Coating (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.75	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	53.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.75	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	53.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.08	0.06	0.53	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	95.4	95.4	< 0.005	< 0.005	—	95.7
Architectural Coatings	—	38.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Architectural Coatings	—	7.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.09	1.07	0.48	13.4	0.00	0.00	4.37	4.37	0.00	1.03	1.03	—	3,976	3,976	0.05	0.03	3.08	3,991
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.03	0.87	0.66	10.2	0.00	0.00	4.37	4.37	0.00	1.03	1.03	—	3,598	3,598	0.06	0.03	0.08	3,610
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74	0.72	0.46	7.64	0.00	0.00	3.06	3.06	0.00	0.72	0.72	—	2,634	2,634	0.03	0.02	0.95	2,643
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.13	0.08	1.39	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	436	436	0.01	< 0.005	0.16	438
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.45. Architectural Coating (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.74	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	53.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.74	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	53.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.08	0.06	0.52	0.76	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.3	93.3	< 0.005	< 0.005	—	93.6
Architectural Coatings	—	37.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.4	15.4	< 0.005	< 0.005	—	15.5
Architectural Coatings	—	6.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.03	0.87	0.48	13.0	0.00	0.00	4.37	4.37	0.00	1.03	1.03	—	3,948	3,948	0.05	0.03	2.58	3,962
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.01	0.85	0.65	9.97	0.00	0.00	4.37	4.37	0.00	1.03	1.03	—	3,573	3,573	0.06	0.03	0.07	3,585
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.70	0.59	0.44	7.21	0.00	0.00	2.99	2.99	0.00	0.70	0.70	—	2,558	2,558	0.03	0.02	0.78	2,567
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.11	0.08	1.32	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	424	424	0.01	< 0.005	0.13	425
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.46. Architectural Coating (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.74	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	53.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.74	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	53.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.08	0.06	0.52	0.76	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	93.3	93.3	< 0.005	< 0.005	—	93.6
Architectural Coatings	—	37.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.4	15.4	< 0.005	< 0.005	—	15.5
Architectural Coatings	—	6.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.03	0.87	0.48	13.0	0.00	0.00	4.37	4.37	0.00	1.03	1.03	—	3,948	3,948	0.05	0.03	2.58	3,962
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.01	0.85	0.65	9.97	0.00	0.00	4.37	4.37	0.00	1.03	1.03	—	3,573	3,573	0.06	0.03	0.07	3,585
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.70	0.59	0.44	7.21	0.00	0.00	2.99	2.99	0.00	0.70	0.70	—	2,558	2,558	0.03	0.02	0.78	2,567
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.11	0.08	1.32	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	424	424	0.01	< 0.005	0.13	425
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	2,462	2,462	0.40	0.05	—	2,486
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	683	683	0.11	0.01	—	690
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	10,687	10,687	1.73	0.21	—	10,793
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	22,379	22,379	3.62	0.44	—	22,601
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	12,494	12,494	2.02	0.25	—	12,618
Total	—	—	—	—	—	—	—	—	—	—	—	—	48,706	48,706	7.88	0.96	—	49,188
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	2,462	2,462	0.40	0.05	—	2,486
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	683	683	0.11	0.01	—	690

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	10,687	10,687	1.73	0.21	—	10,793
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	22,379	22,379	3.62	0.44	—	22,601
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	12,494	12,494	2.02	0.25	—	12,618
Total	—	—	—	—	—	—	—	—	—	—	—	—	48,706	48,706	7.88	0.96	—	49,188
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	408	408	0.07	0.01	—	412
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	113	113	0.02	< 0.005	—	114
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	1,769	1,769	0.29	0.03	—	1,787
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	3,705	3,705	0.60	0.07	—	3,742

Refrigerated Warehouse Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,069	2,069	0.33	0.04	—	2,089
Total	—	—	—	—	—	—	—	—	—	—	—	—	8,064	8,064	1.30	0.16	—	8,144

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	2,462	2,462	0.40	0.05	—	2,486
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	683	683	0.11	0.01	—	690
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	10,687	10,687	1.73	0.21	—	10,793
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	22,379	22,379	3.62	0.44	—	22,601

Refrigerated Warehouse Rail	—	—	—	—	—	—	—	—	—	—	—	—	12,494	12,494	2.02	0.25	—	12,618
Total	—	—	—	—	—	—	—	—	—	—	—	—	48,706	48,706	7.88	0.96	—	49,188
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	2,462	2,462	0.40	0.05	—	2,486
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	683	683	0.11	0.01	—	690
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	10,687	10,687	1.73	0.21	—	10,793
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	22,379	22,379	3.62	0.44	—	22,601
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	12,494	12,494	2.02	0.25	—	12,618
Total	—	—	—	—	—	—	—	—	—	—	—	—	48,706	48,706	7.88	0.96	—	49,188
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	408	408	0.07	0.01	—	412
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	113	113	0.02	< 0.005	—	114
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	1,769	1,769	0.29	0.03	—	1,787
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	3,705	3,705	0.60	0.07	—	3,742
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,069	2,069	0.33	0.04	—	2,089
Total	—	—	—	—	—	—	—	—	—	—	—	—	8,064	8,064	1.30	0.16	—	8,144

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Heavy Industry	0.52	0.26	4.75	3.99	0.03	0.36	—	0.36	0.36	—	0.36	—	5,666	5,666	0.50	0.01	—	5,681
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.04	0.02	0.33	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	388	388	0.03	< 0.005	—	389
Industrial Park	0.78	0.39	7.09	5.95	0.04	0.54	—	0.54	0.54	—	0.54	—	8,454	8,454	0.75	0.02	—	8,477
Unrefrigerated Warehouse-No Rail	0.63	0.31	5.73	4.81	0.03	0.44	—	0.44	0.44	—	0.44	—	6,832	6,832	0.60	0.01	—	6,851
Refrigerated Warehouse-No Rail	0.13	0.07	1.22	1.02	0.01	0.09	—	0.09	0.09	—	0.09	—	1,453	1,453	0.13	< 0.005	—	1,457
Total	2.10	1.05	19.1	16.0	0.11	1.45	—	1.45	1.45	—	1.45	—	22,792	22,792	2.02	0.04	—	22,856
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.52	0.26	4.75	3.99	0.03	0.36	—	0.36	0.36	—	0.36	—	5,666	5,666	0.50	0.01	—	5,681
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.04	0.02	0.33	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	388	388	0.03	< 0.005	—	389
Industrial Park	0.78	0.39	7.09	5.95	0.04	0.54	—	0.54	0.54	—	0.54	—	8,454	8,454	0.75	0.02	—	8,477
Unrefrigerated Warehouse-No Rail	0.63	0.31	5.73	4.81	0.03	0.44	—	0.44	0.44	—	0.44	—	6,832	6,832	0.60	0.01	—	6,851
Refrigerated Warehouse-No Rail	0.13	0.07	1.22	1.02	0.01	0.09	—	0.09	0.09	—	0.09	—	1,453	1,453	0.13	< 0.005	—	1,457
Total	2.10	1.05	19.1	16.0	0.11	1.45	—	1.45	1.45	—	1.45	—	22,792	22,792	2.02	0.04	—	22,856
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.10	0.05	0.87	0.73	0.01	0.07	—	0.07	0.07	—	0.07	—	938	938	0.08	< 0.005	—	941
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	64.2	64.2	0.01	< 0.005	—	64.4
Industrial Park	0.14	0.07	1.29	1.09	0.01	0.10	—	0.10	0.10	—	0.10	—	1,400	1,400	0.12	< 0.005	—	1,404

Unrefrigerated Warehouse-No Rail	0.11	0.06	1.04	0.88	0.01	0.08	—	0.08	0.08	—	0.08	—	1,131	1,131	0.10	< 0.005	—	1,134
Refrigerated Warehouse-No Rail	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	241	241	0.02	< 0.005	—	241
Total	0.38	0.19	3.49	2.93	0.02	0.26	—	0.26	0.26	—	0.26	—	3,774	3,774	0.33	0.01	—	3,784

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.52	0.26	4.75	3.99	0.03	0.36	—	0.36	0.36	—	0.36	—	5,666	5,666	0.50	0.01	—	5,681
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.04	0.02	0.33	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	388	388	0.03	< 0.005	—	389
Industrial Park	0.78	0.39	7.09	5.95	0.04	0.54	—	0.54	0.54	—	0.54	—	8,454	8,454	0.75	0.02	—	8,477

Unrefrige rated Warehou se-No	0.63	0.31	5.73	4.81	0.03	0.44	—	0.44	0.44	—	0.44	—	6,832	6,832	0.60	0.01	—	6,851
Refrigerated Warehou se-No Rail	0.13	0.07	1.22	1.02	0.01	0.09	—	0.09	0.09	—	0.09	—	1,453	1,453	0.13	< 0.005	—	1,457
Total	2.10	1.05	19.1	16.0	0.11	1.45	—	1.45	1.45	—	1.45	—	22,792	22,792	2.02	0.04	—	22,856
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.52	0.26	4.75	3.99	0.03	0.36	—	0.36	0.36	—	0.36	—	5,666	5,666	0.50	0.01	—	5,681
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.04	0.02	0.33	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	388	388	0.03	< 0.005	—	389
Industrial Park	0.78	0.39	7.09	5.95	0.04	0.54	—	0.54	0.54	—	0.54	—	8,454	8,454	0.75	0.02	—	8,477
Unrefrige rated Warehou se-No Rail	0.63	0.31	5.73	4.81	0.03	0.44	—	0.44	0.44	—	0.44	—	6,832	6,832	0.60	0.01	—	6,851

Refrigerated Warehouse-No Rail	0.13	0.07	1.22	1.02	0.01	0.09	—	0.09	0.09	—	0.09	—	1,453	1,453	0.13	< 0.005	—	1,457
Total	2.10	1.05	19.1	16.0	0.11	1.45	—	1.45	1.45	—	1.45	—	22,792	22,792	2.02	0.04	—	22,856
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.10	0.05	0.87	0.73	0.01	0.07	—	0.07	0.07	—	0.07	—	938	938	0.08	< 0.005	—	941
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	64.2	64.2	0.01	< 0.005	—	64.4
Industrial Park	0.14	0.07	1.29	1.09	0.01	0.10	—	0.10	0.10	—	0.10	—	1,400	1,400	0.12	< 0.005	—	1,404
Unrefrigerated Warehouse-No Rail	0.11	0.06	1.04	0.88	0.01	0.08	—	0.08	0.08	—	0.08	—	1,131	1,131	0.10	< 0.005	—	1,134
Refrigerated Warehouse-No Rail	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	241	241	0.02	< 0.005	—	241
Total	0.38	0.19	3.49	2.93	0.02	0.26	—	0.26	0.26	—	0.26	—	3,774	3,774	0.33	0.01	—	3,784

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	134	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	48.3	44.6	2.28	271	0.02	0.48	—	0.48	0.36	—	0.36	—	1,115	1,115	0.05	0.01	—	1,119
Total	48.3	186	2.28	271	0.02	0.48	—	0.48	0.36	—	0.36	—	1,115	1,115	0.05	0.01	—	1,119
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	134	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	142	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	24.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipment	4.34	4.01	0.21	24.4	< 0.005	0.04	—	0.04	0.03	—	0.03	—	91.0	91.0	< 0.005	< 0.005	—	91.3
Total	4.34	29.9	0.21	24.4	< 0.005	0.04	—	0.04	0.03	—	0.03	—	91.0	91.0	< 0.005	< 0.005	—	91.3

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	134	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	48.3	44.6	2.28	271	0.02	0.48	—	0.48	0.36	—	0.36	—	1,115	1,115	0.05	0.01	—	1,119
Total	48.3	186	2.28	271	0.02	0.48	—	0.48	0.36	—	0.36	—	1,115	1,115	0.05	0.01	—	1,119
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	134	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	142	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Products	—	24.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.34	4.01	0.21	24.4	< 0.005	0.04	—	0.04	0.03	—	0.03	—	91.0	91.0	< 0.005	< 0.005	—	91.3
Total	4.34	29.9	0.21	24.4	< 0.005	0.04	—	0.04	0.03	—	0.03	—	91.0	91.0	< 0.005	< 0.005	—	91.3

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	189	180	369	19.4	0.46	—	992
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	19.9	18.9	38.9	2.05	0.05	—	105

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	405	385	790	41.6	0.99	—	2,126
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,701	1,617	3,317	175	4.17	—	8,928
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	405	385	790	41.6	0.99	—	2,126
Total	—	—	—	—	—	—	—	—	—	—	—	2,719	2,585	5,305	279	6.68	—	14,275
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	189	180	369	19.4	0.46	—	992
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	19.9	18.9	38.9	2.05	0.05	—	105
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	405	385	790	41.6	0.99	—	2,126
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,701	1,617	3,317	175	4.17	—	8,928

Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	405	385	790	41.6	0.99	—	2,126
Total	—	—	—	—	—	—	—	—	—	—	—	2,719	2,585	5,305	279	6.68	—	14,275
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	31.3	29.7	61.0	3.21	0.08	—	164
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	3.30	3.14	6.43	0.34	0.01	—	17.3
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	67.0	63.7	131	6.88	0.16	—	352
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	282	268	549	28.9	0.69	—	1,478
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	67.0	63.7	131	6.88	0.16	—	352
Total	—	—	—	—	—	—	—	—	—	—	—	450	428	878	46.2	1.11	—	2,363

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	189	180	369	19.4	0.46	—	992
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	19.9	18.9	38.9	2.05	0.05	—	105
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	405	385	790	41.6	0.99	—	2,126
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,701	1,617	3,317	175	4.17	—	8,928
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	405	385	790	41.6	0.99	—	2,126
Total	—	—	—	—	—	—	—	—	—	—	—	2,719	2,585	5,305	279	6.68	—	14,275
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	189	180	369	19.4	0.46	—	992
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	19.9	18.9	38.9	2.05	0.05	—	105
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	405	385	790	41.6	0.99	—	2,126
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,701	1,617	3,317	175	4.17	—	8,928
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	405	385	790	41.6	0.99	—	2,126
Total	—	—	—	—	—	—	—	—	—	—	—	2,719	2,585	5,305	279	6.68	—	14,275
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	31.3	29.7	61.0	3.21	0.08	—	164
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	3.30	3.14	6.43	0.34	0.01	—	17.3
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	67.0	63.7	131	6.88	0.16	—	352
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	282	268	549	28.9	0.69	—	1,478
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	67.0	63.7	131	6.88	0.16	—	352
Total	—	—	—	—	—	—	—	—	—	—	—	450	428	878	46.2	1.11	—	2,363

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	285	0.00	285	28.5	0.00	—	997
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	2.50	0.00	2.50	0.25	0.00	—	8.76
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	79.4	0.00	79.4	7.94	0.00	—	278
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	611	0.00	611	61.0	0.00	—	2,136
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,944	0.00	1,944	194	0.00	—	6,802
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	463	0.00	463	46.3	0.00	—	1,620
Total	—	—	—	—	—	—	—	—	—	—	—	3,385	0.00	3,385	338	0.00	—	11,842
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	285	0.00	285	28.5	0.00	—	997
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	2.50	0.00	2.50	0.25	0.00	—	8.76
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	79.4	0.00	79.4	7.94	0.00	—	278

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	611	0.00	611	61.0	0.00	—	2,136
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,944	0.00	1,944	194	0.00	—	6,802
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	463	0.00	463	46.3	0.00	—	1,620
Total	—	—	—	—	—	—	—	—	—	—	—	3,385	0.00	3,385	338	0.00	—	11,842
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	47.2	0.00	47.2	4.72	0.00	—	165
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.41	0.00	0.41	0.04	0.00	—	1.45
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	13.1	0.00	13.1	1.31	0.00	—	46.0
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	101	0.00	101	10.1	0.00	—	354
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	322	0.00	322	32.2	0.00	—	1,126

Refrigerated Warehouse Rail	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Total	—	—	—	—	—	—	—	—	—	—	—	560	0.00	560	56.0	0.00	—	1,961

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	285	0.00	285	28.5	0.00	—	997
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	2.50	0.00	2.50	0.25	0.00	—	8.76
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	79.4	0.00	79.4	7.94	0.00	—	278
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	611	0.00	611	61.0	0.00	—	2,136
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,944	0.00	1,944	194	0.00	—	6,802

Refrigerated Warehouse Rail	—	—	—	—	—	—	—	—	—	—	—	463	0.00	463	46.3	0.00	—	1,620
Total	—	—	—	—	—	—	—	—	—	—	—	3,385	0.00	3,385	338	0.00	—	11,842
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	285	0.00	285	28.5	0.00	—	997
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	2.50	0.00	2.50	0.25	0.00	—	8.76
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	79.4	0.00	79.4	7.94	0.00	—	278
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	611	0.00	611	61.0	0.00	—	2,136
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,944	0.00	1,944	194	0.00	—	6,802
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	463	0.00	463	46.3	0.00	—	1,620
Total	—	—	—	—	—	—	—	—	—	—	—	3,385	0.00	3,385	338	0.00	—	11,842
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	47.2	0.00	47.2	4.72	0.00	—	165
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.41	0.00	0.41	0.04	0.00	—	1.45
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	13.1	0.00	13.1	1.31	0.00	—	46.0
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	101	0.00	101	10.1	0.00	—	354
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	322	0.00	322	32.2	0.00	—	1,126
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Total	—	—	—	—	—	—	—	—	—	—	—	560	0.00	560	56.0	0.00	—	1,961

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	111	111
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.67	0.67
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	238	238
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,351	24,351
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,701	24,701
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	111	111
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.67	0.67
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	238	238
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,351	24,351
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,701	24,701

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.4	18.4
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.4	39.4
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,032	4,032
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,089	4,089

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	111	111
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.67	0.67
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	238	238

Refrigerated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,351	24,351
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,701	24,701
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	111	111
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.67	0.67
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	238	238
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,351	24,351
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24,701	24,701
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.4	18.4
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.4	39.4

Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,032	4,032
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,089	4,089

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
---------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	8/1/2024	7/1/2025	5.00	239	—
Grading	Grading	7/2/2025	11/14/2027	5.00	618	—
Building Construction	Building Construction	11/15/2027	12/30/2038	5.00	2,904	—
Paving	Paving	11/15/2028	7/23/2030	5.00	440	—
Architectural Coating	Architectural Coating	11/15/2037	12/23/2039	5.00	550	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backh oes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backh oes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42

Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.9	LDA,LDT1,LDT2
Site Preparation	Vendor	—	9.10	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	11.9	LDA,LDT1,LDT2
Grading	Vendor	—	9.10	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	2,603	11.9	LDA,LDT1,LDT2
Building Construction	Vendor	1,021	9.10	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.9	LDA,LDT1,LDT2
Paving	Vendor	—	9.10	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT

Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	521	11.9	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	9.10	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.9	LDA,LDT1,LDT2
Site Preparation	Vendor	—	9.10	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	11.9	LDA,LDT1,LDT2
Grading	Vendor	—	9.10	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	2,603	11.9	LDA,LDT1,LDT2
Building Construction	Vendor	1,021	9.10	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.9	LDA,LDT1,LDT2
Paving	Vendor	—	9.10	HHDT,MHDT

Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	521	11.9	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	9.10	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	9,347,850	3,115,950	154,725

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Ton of Debris)	Material Exported (Ton of Debris)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	359	0.00	—
Grading	0.00	0.00	1,854	0.00	—
Paving	0.00	0.00	0.00	0.00	59.2

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Heavy Industry	0.00	0%
Other Asphalt Surfaces	18.2	100%
Other Non-Asphalt Surfaces	41.0	0%
City Park	0.00	0%
Regional Shopping Center	0.00	0%
Industrial Park	0.00	0%
Unrefrigerated Warehouse-No Rail	0.00	0%
Refrigerated Warehouse-No Rail	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005
2028	0.00	204	0.03	< 0.005
2029	0.00	204	0.03	< 0.005
2030	0.00	204	0.03	< 0.005
2031	0.00	204	0.03	< 0.005
2032	0.00	204	0.03	< 0.005
2033	0.00	204	0.03	< 0.005
2034	0.00	204	0.03	< 0.005
2035	0.00	204	0.03	< 0.005

2036	0.00	204	0.03	< 0.005
2037	0.00	204	0.03	< 0.005
2038	0.00	204	0.03	< 0.005
2039	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	77,178	77,178	77,178	28,169,970	777,176	777,176	777,176	283,669,240

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	77,178	77,178	77,178	28,169,970	777,176	777,176	777,176	283,669,240

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	9,347,850	3,115,950	154,725

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Heavy Industry	4,404,797	204	0.0330	0.0040	17,678,365
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00
City Park	0.00	204	0.0330	0.0040	0.00
Regional Shopping Center	1,222,740	204	0.0330	0.0040	1,210,603
Industrial Park	19,123,763	204	0.0330	0.0040	26,378,490
Unrefrigerated Warehouse-No Rail	40,044,967	204	0.0330	0.0040	21,317,679
Refrigerated Warehouse-No Rail	22,356,491	204	0.0330	0.0040	4,533,168

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBtu/yr)
General Heavy Industry	4,404,797	204	0.0330	0.0040	17,678,365
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00
City Park	0.00	204	0.0330	0.0040	0.00
Regional Shopping Center	1,222,740	204	0.0330	0.0040	1,210,603
Industrial Park	19,123,763	204	0.0330	0.0040	26,378,490
Unrefrigerated Warehouse-No Rail	40,044,967	204	0.0330	0.0040	21,317,679
Refrigerated Warehouse-No Rail	22,356,491	204	0.0330	0.0040	4,533,168

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Heavy Industry	98,607,313	0.00
Other Asphalt Surfaces	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
City Park	0.00	0.00
Regional Shopping Center	10,396,078	0.00
Industrial Park	211,300,063	0.00
Unrefrigerated Warehouse-No Rail	887,463,500	0.00
Refrigerated Warehouse-No Rail	211,300,063	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Heavy Industry	98,607,313	0.00

Other Asphalt Surfaces	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
City Park	0.00	0.00
Regional Shopping Center	10,396,078	0.00
Industrial Park	211,300,063	0.00
Unrefrigerated Warehouse-No Rail	887,463,500	0.00
Refrigerated Warehouse-No Rail	211,300,063	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Heavy Industry	529	—
Other Asphalt Surfaces	0.00	—
Other Non-Asphalt Surfaces	0.00	—
City Park	4.64	—
Regional Shopping Center	147	—
Industrial Park	1,133	—
Unrefrigerated Warehouse-No Rail	3,607	—
Refrigerated Warehouse-No Rail	859	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Heavy Industry	529	—
Other Asphalt Surfaces	0.00	—
Other Non-Asphalt Surfaces	0.00	—
City Park	4.64	—

Regional Shopping Center	147	—
Industrial Park	1,133	—
Unrefrigerated Warehouse-No Rail	3,607	—
Refrigerated Warehouse-No Rail	859	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Heavy Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Heavy Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	17.0	annual days of extreme heat
Extreme Precipitation	3.45	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	6.81	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A

Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	51.0
AQ-PM	53.7
AQ-DPM	57.5
Drinking Water	94.7
Lead Risk Housing	55.2
Pesticides	89.4
Toxic Releases	49.0
Traffic	52.6
Effect Indicators	—
CleanUp Sites	84.0
Groundwater	97.7
Haz Waste Facilities/Generators	85.5
Impaired Water Bodies	93.4
Solid Waste	88.1
Sensitive Population	—
Asthma	83.5
Cardio-vascular	89.5
Low Birth Weights	77.8
Socioeconomic Factor Indicators	—
Education	89.2
Housing	47.6

Linguistic	49.1
Poverty	78.6
Unemployment	91.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	14.78249711
Employed	0.551777236
Median HI	18.3498011
Education	—
Bachelor's or higher	12.06210702
High school enrollment	13.01167715
Preschool enrollment	25.72821763
Transportation	—
Auto Access	34.2871808
Active commuting	37.14872321
Social	—
2-parent households	49.06967792
Voting	30.7583729
Neighborhood	—
Alcohol availability	75.08020018
Park access	6.775311177
Retail density	21.62196843
Supermarket access	24.75298345
Tree canopy	18.72192994

Housing	—
Homeownership	40.15141794
Housing habitability	27.66585397
Low-inc homeowner severe housing cost burden	11.76697036
Low-inc renter severe housing cost burden	45.54087001
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	19.74849224
Arthritis	47.0
Asthma ER Admissions	67.9
High Blood Pressure	14.3
Cancer (excluding skin)	85.3
Asthma	13.4
Coronary Heart Disease	63.8
Chronic Obstructive Pulmonary Disease	23.6
Diagnosed Diabetes	26.4
Life Expectancy at Birth	64.0
Cognitively Disabled	9.0
Physically Disabled	10.4
Heart Attack ER Admissions	84.8
Mental Health Not Good	19.1
Chronic Kidney Disease	55.3
Obesity	31.1
Pedestrian Injuries	71.2
Physical Health Not Good	25.9
Stroke	26.0
Health Risk Behaviors	—

Binge Drinking	93.5
Current Smoker	9.6
No Leisure Time for Physical Activity	8.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	78.7
Elderly	78.6
English Speaking	44.0
Foreign-born	52.8
Outdoor Workers	3.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	85.9
Traffic Density	60.2
Traffic Access	0.0
Other Indices	—
Hardship	76.7
Other Decision Support	—
2016 Voting	20.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	99.0
Healthy Places Index Score for Project Location (b)	4.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
 b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Land uses are best fit based on available land use types/subtypes available in CalEEMod. Land uses selected are consistent with the land uses utilized in the Traffic Study (Fehr & Peers).
Construction: Construction Phases	Construction schedule based on project size and details. Compressed schedule length for site prep, grading, building construction, and paving (compared to default). Default schedule length for arch. coating. No demolition.
Operations: Fleet Mix	Fleet mix modified as provided by Fehr & Peers: LDA: 0.328128; LDT1: 0.287112; LDT2: 0.139454; LHD1: 0.030282; LDH2: 0.018169; MHD: 0.049213; HHD: 0.147641. Remainder = 0. Note: VMT and Trips as provided by Fehr & Peers. Daily VMT: 777,176 VMT. Daily Trips: 77,178
Operations: Vehicle Data	Vehicle Trips - Vehicle trips consistent with data provided by Fehr & Peers. To make VMT consistent w/ Fehr & Peers data, trip lengths normalized at 10 miles; trip rate for General Heavy Industry normalized at 182.26. Other land uses normalized at 0.

APPENDIX B.2

Energy Outputs

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: SAN JOAQUIN

Calendar Year: 2021

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	Fuel Consumption	MPG
SAN JOAQUIN	2021	All Other Buses	Aggregated	Aggregated	DSL	69.64362884	3798.176602	585.0064823	0.433923467	8.753103
SAN JOAQUIN	2021	LDA	Aggregated	Aggregated	GAS	286267.8223	11331154.17	1340711.479	369.880954	30.6346
SAN JOAQUIN	2021	LDA	Aggregated	Aggregated	DSL	2226.814274	94152.13382	10574.47042	1.916141145	49.13632
SAN JOAQUIN	2021	LDA	Aggregated	Aggregated	ELEC	3716.128485	145672.723	18655.36486	0	
SAN JOAQUIN	2021	LDT1	Aggregated	Aggregated	GAS	29154.07954	1025942.82	131402.2718	39.08987559	26.24574
SAN JOAQUIN	2021	LDT1	Aggregated	Aggregated	DSL	24.7964189	441.5487246	85.78495419	0.018855057	23.41805
SAN JOAQUIN	2021	LDT1	Aggregated	Aggregated	ELEC	96.9868293	3961.982168	492.4093528	0	
SAN JOAQUIN	2021	LDT2	Aggregated	Aggregated	GAS	93274.26907	3447688.028	430889.5144	142.9035653	24.12598
SAN JOAQUIN	2021	LDT2	Aggregated	Aggregated	DSL	436.8525286	19843.57826	2148.405137	0.545866223	36.35246
SAN JOAQUIN	2021	LDT2	Aggregated	Aggregated	ELEC	566.6785511	18259.36084	2871.386235	0	
SAN JOAQUIN	2021	LHD1	Aggregated	Aggregated	GAS	7966.254064	254686.7324	118685.3158	30.77208736	8.27655
SAN JOAQUIN	2021	LHD1	Aggregated	Aggregated	DSL	8686.179642	288255.8686	109261.2127	16.3340585	17.64753
SAN JOAQUIN	2021	LHD2	Aggregated	Aggregated	GAS	1062.066033	34784.66034	15823.20141	4.799249116	7.247938
SAN JOAQUIN	2021	LHD2	Aggregated	Aggregated	DSL	2690.250305	93304.09058	33839.9645	5.908215081	15.79226
SAN JOAQUIN	2021	MCY	Aggregated	Aggregated	GAS	13653.72518	101089.2873	27307.45037	2.720599198	37.15699
SAN JOAQUIN	2021	MDV	Aggregated	Aggregated	GAS	91099.84328	2958779.364	411208.0578	153.5234997	19.27249
SAN JOAQUIN	2021	MDV	Aggregated	Aggregated	DSL	1618.986421	66498.02606	7829.273778	2.51045655	26.48842
SAN JOAQUIN	2021	MDV	Aggregated	Aggregated	ELEC	242.501609	8104.209822	1243.39086	0	
SAN JOAQUIN	2021	MH	Aggregated	Aggregated	GAS	1671.099052	13538.81777	167.1767492	2.874734355	4.709589
SAN JOAQUIN	2021	MH	Aggregated	Aggregated	DSL	642.9095317	5406.775948	64.29095317	0.560468293	9.64689
SAN JOAQUIN	2021	Motor Coach	Aggregated	Aggregated	DSL	20.26764279	2634.778672	295.9075848	0.421287109	6.254117
SAN JOAQUIN	2021	OBUS	Aggregated	Aggregated	GAS	195.7409415	9310.146416	3916.384757	1.98898918	4.680843
SAN JOAQUIN	2021	PTO	Aggregated	Aggregated	DSL	0	11686.88863	0	2.419169717	4.83095
SAN JOAQUIN	2021	SBUS	Aggregated	Aggregated	GAS	41.68573532	2131.992934	166.7429413	0.227144021	9.386084
SAN JOAQUIN	2021	SBUS	Aggregated	Aggregated	DSL	615.0183776	19430.40721	7097.226808	2.454444902	7.916416 MHD
SAN JOAQUIN	2021	T6 Ag	Aggregated	Aggregated	DSL	91.35208547	1118.959516	401.9491761	0.124660736	8.976038 8.984753
SAN JOAQUIN	2021	T6 CAIRP heavy	Aggregated	Aggregated	DSL	102.9308945	20247.91576	1502.79106	1.836577303	11.02481
SAN JOAQUIN	2021	T6 CAIRP small	Aggregated	Aggregated	DSL	54.57391475	2861.739008	796.7791554	0.275737978	10.37847
SAN JOAQUIN	2021	T6 instate construction	Aggregated	Aggregated	DSL	289.3367577	19688.86951	1308.080232	2.450024844	8.036192
SAN JOAQUIN	2021	T6 instate construction	Aggregated	Aggregated	DSL	1516.329948	78458.90418	6855.268738	9.698846242	8.089509
SAN JOAQUIN	2021	T6 instate heavy	Aggregated	Aggregated	DSL	1391.016683	164000.3379	16052.13967	17.36742296	9.442986
SAN JOAQUIN	2021	T6 instate small	Aggregated	Aggregated	DSL	2799.131567	131067.3136	32301.59019	14.22689859	9.212641
SAN JOAQUIN	2021	T6 OOS heavy	Aggregated	Aggregated	DSL	58.66500303	11625.3574	856.5090442	1.053429361	11.03573
SAN JOAQUIN	2021	T6 OOS small	Aggregated	Aggregated	DSL	31.50965711	1636.402664	460.0409939	0.15789015	10.36418
SAN JOAQUIN	2021	T6 Public	Aggregated	Aggregated	DSL	476.9983519	7598.49004	1446.894999	1.016600354	7.474412
SAN JOAQUIN	2021	T6 utility	Aggregated	Aggregated	DSL	75.9700855	1278.477629	873.6559833	0.141986219	9.004237
SAN JOAQUIN	2021	T6T5	Aggregated	Aggregated	GAS	558.9020249	29141.79999	11182.51171	6.099389397	4.777823 HHD
SAN JOAQUIN	2021	T7 Ag	Aggregated	Aggregated	DSL	63.09921483	908.1025101	277.6365453	0.15835692	5.73453 5.380834
SAN JOAQUIN	2021	T7 CAIRP	Aggregated	Aggregated	DSL	1484.277133	263585.597	21670.44614	39.57415851	6.660548
SAN JOAQUIN	2021	T7 CAIRP construction	Aggregated	Aggregated	DSL	78.26736153	14142.686	353.8436984	2.458768859	5.751938
SAN JOAQUIN	2021	T7 NNOOS	Aggregated	Aggregated	DSL	1601.854981	321331.1539	23387.08272	46.44161833	6.919034
SAN JOAQUIN	2021	T7 NOOS	Aggregated	Aggregated	DSL	582.7832344	103558.3637	8508.635223	15.91313993	6.507727
SAN JOAQUIN	2021	T7 other port	Aggregated	Aggregated	DSL	30.1346366	4810.716206	229.0232382	0.879814201	5.467877
SAN JOAQUIN	2021	T7 POAK	Aggregated	Aggregated	DSL	159.2362607	18312.223	1210.195581	3.501866933	5.229274
SAN JOAQUIN	2021	T7 POLA	Aggregated	Aggregated	DSL	141.2496883	17744.33851	1073.497631	3.409280904	5.204716
SAN JOAQUIN	2021	T7 Public	Aggregated	Aggregated	DSL	478.1302497	9675.878524	1450.328423	1.824298002	5.303891
SAN JOAQUIN	2021	T7 Single	Aggregated	Aggregated	DSL	849.4934503	58857.50716	9803.036638	9.680324065	6.080117
SAN JOAQUIN	2021	T7 single construction	Aggregated	Aggregated	DSL	498.9874784	35085.40269	2255.902989	6.602419541	5.314022
SAN JOAQUIN	2021	T7 SWCV	Aggregated	Aggregated	DSL	225.3362121	9190.993454	878.811227	3.706396195	2.479766
SAN JOAQUIN	2021	T7 SWCV	Aggregated	Aggregated	NG	34.66386001	1413.537849	135.189054	0.613070391	2.30567
SAN JOAQUIN	2021	T7 tractor	Aggregated	Aggregated	DSL	2787.655008	381099.8208	35403.2186	52.92700705	7.200479
SAN JOAQUIN	2021	T7 tractor construction	Aggregated	Aggregated	DSL	416.6841119	28942.36827	1883.812669	5.485850939	5.275821
SAN JOAQUIN	2021	T7 utility	Aggregated	Aggregated	DSL	19.88620819	403.4595405	228.6913942	0.068633937	5.878426
SAN JOAQUIN	2021	T7T5	Aggregated	Aggregated	GAS	2.006552531	196.6053117	40.14710304	0.047256986	4.160344
SAN JOAQUIN	2021	UBUS	Aggregated	Aggregated	GAS	15.84914115	1442.965721	63.3965646	0.312746036	4.613858
SAN JOAQUIN	2021	UBUS	Aggregated	Aggregated	DSL	64.04919124	5071.660773	256.196765	0.717472632	7.068786
SAN JOAQUIN	2021	UBUS	Aggregated	Aggregated	ELEC	2.042727277	124.318219	8.170909109	0	
SAN JOAQUIN	2021	UBUS	Aggregated	Aggregated	NG	106.2074629	6765.746654	424.8298518	1.37346578	4.926039

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: SAN JOAQUIN

Calendar Year: 2040

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	Fuel Consumption	MPG
SAN JOAQUIN	2040	All Other Buses	Aggregated	Aggregated	DSL	103.8010758	5396.166958	871.9290369	0.477128851	11.30966
SAN JOAQUIN	2040	LDA	Aggregated	Aggregated	GAS	446350.6654	14504635.68	2075050.75	339.7406616	42.69326
SAN JOAQUIN	2040	LDA	Aggregated	Aggregated	DSL	5427.221703	179559.8133	25399.90892	2.724806271	65.89819
SAN JOAQUIN	2040	LDA	Aggregated	Aggregated	ELEC	27422.87309	868360.2937	129680.9248	0	
SAN JOAQUIN	2040	LDT1	Aggregated	Aggregated	GAS	45639.44906	1382006.576	208823.2579	37.64484902	36.7117
SAN JOAQUIN	2040	LDT1	Aggregated	Aggregated	DSL	6.836597457	198.8516412	30.71651851	0.005868029	33.8873
SAN JOAQUIN	2040	LDT1	Aggregated	Aggregated	ELEC	1609.636111	50597.38386	7592.789216	0	
SAN JOAQUIN	2040	LDT2	Aggregated	Aggregated	GAS	140592.1526	4337261.708	647429.3541	117.1672895	37.01768
SAN JOAQUIN	2040	LDT2	Aggregated	Aggregated	DSL	1398.596528	44382.21208	6524.354885	0.894092501	49.6394
SAN JOAQUIN	2040	LDT2	Aggregated	Aggregated	ELEC	5955.647693	129821.5209	28110.99701	0	
SAN JOAQUIN	2040	LHD1	Aggregated	Aggregated	GAS	7690.492612	230698.541	114576.8811	22.51281969	10.24743
SAN JOAQUIN	2040	LHD1	Aggregated	Aggregated	DSL	7481.580415	218859.765	94108.8698	9.771028935	22.39885
SAN JOAQUIN	2040	LHD2	Aggregated	Aggregated	GAS	1067.178662	31884.77788	15899.37196	3.568772905	8.934381
SAN JOAQUIN	2040	LHD2	Aggregated	Aggregated	DSL	3028.805378	85716.60119	38098.56142	4.328332168	19.80361
SAN JOAQUIN	2040	MCY	Aggregated	Aggregated	GAS	16567.33022	101614.929	33134.66044	2.723355067	37.31241
SAN JOAQUIN	2040	MDV	Aggregated	Aggregated	GAS	93321.0282	2663540.366	423830.8361	88.16061887	30.21236
SAN JOAQUIN	2040	MDV	Aggregated	Aggregated	DSL	3233.381988	95676.12108	14938.5507	2.527903773	37.84801
SAN JOAQUIN	2040	MDV	Aggregated	Aggregated	ELEC	4340.88809	94869.28889	20509.77208	0	
SAN JOAQUIN	2040	MH	Aggregated	Aggregated	GAS	1156.224491	10057.98135	115.6686981	1.68534617	5.967902
SAN JOAQUIN	2040	MH	Aggregated	Aggregated	DSL	627.3518977	4650.6461	62.73518977	0.39795076	11.68649
SAN JOAQUIN	2040	Motor Coach	Aggregated	Aggregated	DSL	27.18044884	3361.129987	396.8345531	0.417637373	8.047963
SAN JOAQUIN	2040	OBUS	Aggregated	Aggregated	GAS	206.9465991	8786.802473	4140.587555	1.478361843	5.943607
SAN JOAQUIN	2040	PTO	Aggregated	Aggregated	DSL	0	13602.46466	0	2.156834795	6.306679
SAN JOAQUIN	2040	SBUS	Aggregated	Aggregated	GAS	137.3364501	5889.333955	549.3458003	0.530478353	11.10193
SAN JOAQUIN	2040	SBUS	Aggregated	Aggregated	DSL	504.8254459	15921.11332	5825.615654	1.604403093	9.923387 MHD
SAN JOAQUIN	2040	T6 Ag	Aggregated	Aggregated	DSL	53.48204947	60.34964097	235.3210176	0.009729975	6.202446 11.21131
SAN JOAQUIN	2040	T6 CAIRP heavy	Aggregated	Aggregated	DSL	155.4524984	25872.25503	2269.606476	1.741581442	14.85561
SAN JOAQUIN	2040	T6 CAIRP small	Aggregated	Aggregated	DSL	86.48663854	3707.132887	1262.704923	0.27953958	13.26157
SAN JOAQUIN	2040	T6 instate constructi	Aggregated	Aggregated	DSL	431.8223941	28306.76183	1952.252255	2.909816787	9.728022
SAN JOAQUIN	2040	T6 instate constructi	Aggregated	Aggregated	DSL	2267.124222	112800.662	10249.58046	10.68124872	10.56062
SAN JOAQUIN	2040	T6 instate heavy	Aggregated	Aggregated	DSL	1505.651134	130274.7705	17375.00533	10.67313036	12.20586
SAN JOAQUIN	2040	T6 instate small	Aggregated	Aggregated	DSL	3326.557936	148067.8405	38388.01737	12.05350612	12.28421
SAN JOAQUIN	2040	T6 OOS heavy	Aggregated	Aggregated	DSL	88.7898146	14874.67632	1296.331293	1.000580826	14.86604
SAN JOAQUIN	2040	T6 OOS small	Aggregated	Aggregated	DSL	49.90273025	2114.664722	728.5798616	0.159769273	13.23574
SAN JOAQUIN	2040	T6 Public	Aggregated	Aggregated	DSL	711.8868769	11074.44696	2159.390191	1.148736593	9.640545
SAN JOAQUIN	2040	T6 utility	Aggregated	Aggregated	DSL	88.36701964	1473.719776	1016.220726	0.125936963	11.70204
SAN JOAQUIN	2040	T6T5	Aggregated	Aggregated	GAS	860.6385614	42137.73861	17219.65634	7.031193839	5.992971 HHD
SAN JOAQUIN	2040	T7 Ag	Aggregated	Aggregated	DSL	57.99952805	98.2426446	255.1979234	0.027443517	3.579812 7.384079
SAN JOAQUIN	2040	T7 CAIRP	Aggregated	Aggregated	DSL	1593.669328	337161.7457	23267.57219	34.48380359	9.777394
SAN JOAQUIN	2040	T7 CAIRP constructio	Aggregated	Aggregated	DSL	113.8555359	20332.99292	514.7364509	2.599658162	7.82141
SAN JOAQUIN	2040	T7 NNOOS	Aggregated	Aggregated	DSL	2468.735605	411005.6563	36043.53983	44.15515075	9.308215
SAN JOAQUIN	2040	T7 NOOS	Aggregated	Aggregated	DSL	633.2469646	132465.9189	9245.405683	13.86885304	9.551325
SAN JOAQUIN	2040	T7 other port	Aggregated	Aggregated	DSL	40.42243251	6886.508768	307.2104871	0.793897347	8.674306
SAN JOAQUIN	2040	T7 POAK	Aggregated	Aggregated	DSL	234.5640711	40602.87244	1782.68694	4.731752864	8.580937
SAN JOAQUIN	2040	T7 POLA	Aggregated	Aggregated	DSL	168.7082511	34867.60197	1282.182708	4.275654171	8.154916
SAN JOAQUIN	2040	T7 Public	Aggregated	Aggregated	DSL	712.6790225	14437.05495	2161.793033	1.968682899	7.333357
SAN JOAQUIN	2040	T7 Single	Aggregated	Aggregated	DSL	863.3569589	68504.73091	9963.019606	8.438823549	8.117806
SAN JOAQUIN	2040	T7 single constructio	Aggregated	Aggregated	DSL	662.5656125	50442.41557	2995.433374	7.159966901	7.045063
SAN JOAQUIN	2040	T7 SWCV	Aggregated	Aggregated	DSL	216.4320883	8825.130875	844.0851446	2.607105389	3.38503
SAN JOAQUIN	2040	T7 SWCV	Aggregated	Aggregated	NG	37.64816761	1535.113257	146.8278537	0.518844628	2.958715
SAN JOAQUIN	2040	T7 tractor	Aggregated	Aggregated	DSL	4048.661731	506581.719	51418.00398	48.45678463	10.4543
SAN JOAQUIN	2040	T7 tractor constructi	Aggregated	Aggregated	DSL	555.2504449	41610.55185	2510.265673	5.781929979	7.196654
SAN JOAQUIN	2040	T7 utility	Aggregated	Aggregated	DSL	23.11542991	468.5751626	265.827444	0.058456158	8.015839
SAN JOAQUIN	2040	T7T5	Aggregated	Aggregated	GAS	3.313187675	390.4008763	66.290259	0.070036417	5.574255
SAN JOAQUIN	2040	UBUS	Aggregated	Aggregated	GAS	21.1445369	1925.078567	84.5781476	0.327673946	5.874982
SAN JOAQUIN	2040	UBUS	Aggregated	Aggregated	DSL	45.71213857	3173.52306	182.8485543	0.410579235	7.72938
SAN JOAQUIN	2040	UBUS	Aggregated	Aggregated	NG	184.1546154	12784.76433	736.6184615	2.826625772	4.522977

On-road Mobile (Operational) Energy Usage

Unmitigated:

Step 1:

Therefore:
Average Daily VMT:
22,633 Source: Fehr & Peers

Step 2:

Given:

Fleet Mix (CalEEMod Output)

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
32.8128%	28.7112%	13.9454%	0.0000%	3.0282%	1.8169%	4.9213%	14.7641%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%

And:

Gasoline MPG Factors for each Vehicle Class - Year 2040 (EMFAC2017 Output)

LDA	LDT1	LDT2	MDV	MCY	MH
42.69325789	36.7117	37.01768	30.21236012	37.31240566	5.967902338

Diesel MPG Factors for each Vehicle Class - Year 2040 (EMFAC2017 Output)

LHD1	LHD2	MHD	HHD	OBUS	UBUS	SBUS
22.39884524	19.80361	11.21131	7.384078565	5.943607456	7.729380318	9.923387

Therefore:
Weighted Average MPG Factors
Gasoline: 39.4 Diesel: 10.9

Step 3:

Therefore:

434	daily gallons of gasoline	508	daily gallons of diesel
or			
158,363	annual gallons of gasoline	185,485	annual gallons of diesel

Off-road Mobile (Construction) Energy Usage

Note: For the sake of simplicity, and as a conservative estimation, it was assumed that all off-road vehicles use diesel fuel as an energy source. Demolition (if applicable), Site preparation and grading off-road mobile vehicle on-site gallons of fuel are calculated below.

Given Factor:	2,171.0	metric tons	CO2	(provided in CalEEMod Output File)
Conversion Factor:	2204.6262	pounds	per metric ton	
Intermediate Result:	4,786,243	pounds	CO2	
Conversion Factor:	22.38	pounds	CO2 per 1 gallon of diesel fuel	Source: U.S. EIA, 2016
Final Result:	213,863	gallons	diesel fuel	http://www.eia.gov/tools/faqs/faq.cfm?id=307&t=11

Mitigated Onsite Scenario	Total CO2 (MT/yr) (provided in CalEEMod Output File)
Site Preparation - 2025	313.00
Grading - 2025	393.00
Grading - 2026	783
Grading - 2027	682

On-road Mobile (Construction) Energy Usage - Site Preparation

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

18

Worker Trip Length (miles) (CalEEMod Output)

11.9

Therefore:

Average Worker Daily VMT:

214

Step 2: **Given:**

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2021

LDA	LDT1	LDT2
30.634598	26.245743	24.125976

Therefore:

Weighted Average Worker MPG Factor

27.9

Step 3: **Therefore:**

7.7 Worker daily gallons of gasoline

Step 4: 239 # of Days (CalEEMod Output)

Therefore:

Result: 1,834 Total gallons of gasoline

On-road Mobile (Construction) Energy Usage - Grading

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

20

Worker Trip Length (miles) (CalEEMod Output)

11.9

Therefore:

Average Worker Daily VMT:

238

Step 2: **Given:**

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2021

LDA	LDT1	LDT2
30.634598	26.245743	24.125976

Therefore:

Weighted Average Worker MPG Factor

27.9

Step 3: **Therefore:**

8.5 Worker daily gallons of gasoline

Step 4: **618 # of Days (CalEEMod Output)**

Therefore:

Result: 5,270 Total gallons of gasoline

On-road Mobile (Construction) Energy Usage - Building Construction

Step 1: **Total Daily Worker Trips (CalEEMod Output)** **Total Daily Vendor Trips (CalEEMod Output)**

2,603	5%	130	1,021	5%	51
-------	----	-----	-------	----	----

Note: Assumes 5% of Plan Area under construction at given point in time (on average) until buildout.

Worker Trip Length (miles) (CalEEMod Output) **Vendor Trip Length (miles) (CalEEMod Output)**

11.9	9.1
------	-----

Therefore:

Average Worker Daily VMT:
1,549

Average Vendor Daily VMT:
465

Step 2: Given: **Assumed Fleet Mix for Workers** (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

Assumed Fleet Mix for Vendors

Fleet Mix for Workers (CalEEMod Output)

MHD	HHD
0%	100%

And:

MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2021

Gasoline:

LDA	LDT1	LDT2
30.6345976	26.24574	24.12598

Diesel:

MHD	HHD
8.98475261	5.380834

Therefore:

Weighted Average Worker (Gasoline) MPG Factor
27.9

Weighted Average Vendor (Diesel) MPG Factor
5.4

Step 3: **Therefore:**
55 Worker daily gallons of gasoline

Therefore:
86 Vendor daily gallons of diesel

Step 4: 2904 # of Days (CalEEMod Output)

Therefore:

161,148 Total gallons of gasoline

Therefore:

250,717 Total gallons of diesel

On-road Mobile (Construction) Energy Usage - Paving

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

15

Worker Trip Length (miles) (CalEEMod Output)

11.9

Therefore:

Average Worker Daily VMT:

179

Step 2: **Given:**

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2021

LDA	LDT1	LDT2
30.634598	26.245743	24.125976

Therefore:

Weighted Average Worker MPG Factor

27.9

Step 3: **Therefore:**

6.4 Worker daily gallons of gasoline

Step 4: 440 # of Days (CalEEMod Output)

Therefore:

Result: 2,814 Total gallons of gasoline

On-road Mobile (Construction) Energy Usage - Architectural Coating

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

521	5%	26
-----	----	----

Note: Assumes 5% of Plan Area under construction at given point in time (on average) until buildout.

Worker Trip Length (miles) (CalEEMod Output)

11.9

Therefore:

Average Worker Daily VMT:

310

Step 2: Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (EMFAC2017 Output) - Year 2021

LDA	LDT1	LDT2
30.634598	26.245743	24.125976

Therefore:

Weighted Average Worker MPG Factor

27.9

Step 3: **Therefore:**

11.1 Worker daily gallons of gasoline

Step 4:

550	# of Days (CalEEMod Output)
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Therefore:

Result:

6,109	Total gallons of gasoline
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APPENDIX B.3

Health Risk Assessment

ANALYSIS OF PUBLIC HEALTH RISKS

FOR THE

SOUTH STOCKTON COMMERCE CENTER

STOCKTON CALIFORNIA

DECEMBER 10, 2024

PROJECT TITLE

South Stockton Commerce Center

PREPARED BY:

De Novo Planning Group
1020 Suncast Lane Suite 106
El Dorado Hills, CA 95762

CONTACT PERSON AND PHONE NUMBER

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APPENDIX 1 EMISSIONS CALCULATIONS

INTRODUCTION

This Health Risk Assessment (HRA) was prepared to assess potential public health risks that may be present at the proposed South Stockton Commerce Center in the city of Stockton, San Joaquin County, California. This report analyzes the emissions of toxic air pollutants within the project area and their impacts on public health.

PROJECT DESCRIPTION

PROJECT LOCATION

The South Stockton Commerce Center Project site (proposed Project site) is comprised of 422.20 acres located in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport. The Project site is located west of the 99 Frontage Road and State Route (SR) 99 and east of Airport Way.

EXISTING SURROUNDING USES

The Project site is primarily bounded by lands within the County to the north, east and south. Lands within the City of Stockton are located to the west. Uses within the surrounding area include the following:

- North – Rydberg Creek, Army National Guard, and Stockton Airport to the north within County.
- East – Agricultural lands, 99 Frontage Road and SR 99.
- South – Agricultural lands and Duck and Lone Tree Creeks.
- West – The UPRR, Airport Way, and agricultural lands.

PROJECT CHARACTERISTICS

The SSCC Project proposes a Tentative Map for the 422.2-acre site to create 13 development lots, two basin lots, one park lot, one open space lot, and one sewer pump station lot. Of the 13 development lots, 12 will be for development of a mix of industrial uses and one will be for development of commercial uses.

More specifically, the SSCC Project Tentative Map proposes approximately 298 net acres of limited industrial uses. Although a Site Plan is not currently proposed, for planning purposes a conceptual site plan was prepared to establish a target Floor Area Ratio (FAR) that was used to generate the maximum square footage of building area for the Tentative Map and for purposes of environmental review. Based on a FAR of 0.47, a maximum of 6,091,551 square feet of industrial type land uses could be developed throughout the site.

The SSCC Tentative Map also proposes approximately 11 acres of general commercial uses located between Airport Way and the UPRR right-of-way. Similar to the industrial uses, a Site Plan is not currently proposed; however, based on a FAR of 0.30, a maximum of 140,350 square feet of commercial land uses could be developed in this area.

The project proposes approximately 54 acres of open space area within the site, which will include approximately seven acres of park space located east of the UPRR and south of the future Commerce Drive (refer to the Circulation Improvements discussion below). The Project anticipates development of a passive park with shade structures and picnic tables for use by employees and visitors within the site.

Approximately 41 acres of the site will be for public facilities uses to serve the development, including storm basins, outfall, and pump stations; refer to the Utilities and Planned Infrastructure Improvements discussion below. The Project proposes to locate a sewer pump lot (0.28 acres) at the northeast corner of Airport Way and future Commerce Drive, within the portion of the site designated Commercial.

Approximately 18 acres of the site will consist of the proposed west-east road right-of-way (referred to as Commerce Drive), which will provide connections to the SR 99 Frontage Road and Airport Way; refer to the Circulation Improvements discussion below.

SCOPE OF RISK ASSESSMENT

Preparation of risk assessments is a three-step process. The first step is to identify potential contaminants that may lead to public health risks. The second step is to assess the magnitude of contaminants that may reach the public (exposure assessment). The last step is to calculate the magnitude of the health risk as a result of exposure to harmful contaminants on the basis of the toxicology of the contaminants.

The Office of Environmental Health Hazard Assessment, and the San Joaquin Valley Air Pollution Control District (SJVAPCD) provide guidance on the procedures that should be used, including, toxicological data for individual contaminants. This risk assessment is based on the guidance provided within these guidance documents. It should be noted that while this risk assessment uses certain procedures and data from these Guidelines, this assessment is not intended to satisfy the reporting requirements under AB-2588 “Air Toxics” Hot Spots program.

The health risks that are evaluated in this study include:

- Residential Cancer Risk (70-year exposure; start at third trimester) (operational);
- Workplace Cancer Risk (40-year exposure; start at age 16) (operational); and
- Acute and Chronic Hazard Indices (operational).

The 70-year risk applies to residential areas where exposure may potentially occur 24 hours/day, 365 days/year. The 40-year risk is applicable to workplace exposure and therefore accounts for a reduced exposure for the fact that individuals typically would be exposed 8-hrs per day, 5 days per week, and 50 weeks per year. Non-cancer risks can be described as acute (short-term, exposure) or chronic health impacts.

Additionally, construction-related health risks are also evaluated in this study, addressed cumulatively (i.e. in conjunction) with the operational health risks. Since the construction schedule would occur over approximately 15 years, the construction-related health risks include:

- Residential Cancer Risk (15-year exposure; start at third trimester);
- Workplace Cancer Risk (15-year exposure; start at age 16); and
- Acute and Chronic Hazard Indices.

Furthermore, it should be noted that the construction modeling within AERMOD assumed a default 24-hour construction schedule, even though construction would only occur for 10 hours daily in actuality, for the sake a more conservative assessment.

With regard to potential health risks during Project construction, it should be noted that the OEHHA Guidance Manual provides a methodology for determining the applicability of modeling potential Project construction health risks from diesel particulate matter (DPM), which is the only TAC of concern for the proposed Project. The SJVAPCD points to the OEHHA Guidance Manual¹ as the guidebook for developing air toxics health risk assessments (HRAs). Given the OEHHA's Guidance, the determination of whether it is warranted to model potential construction air toxic within an HRA is dependent on whether or not early life exposure adjustments apply to DPM emissions resulting from construction activity. The following discussion outlines the substantial evidence to support why early life exposure adjustments are not applicable to construction DPM and therefore a health risk assessment that models construction DPM is not required for this project.

To date, the SJVAPCD, as a commenting agency, has not conducted public workshops nor developed policy relating to the application of early-life exposure adjustments utilizing the OEHHA Guidance Manual for projects prepared by other public/lead agencies subject to CEQA. As a result, it is recommended that health risk assessments rely upon U.S. EPA documentation when evaluating the use of early life exposure adjustment factors (Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens, EPA/630/R-003F) wherein adjustment factors are only considered when carcinogens act "through the mutagenic mode of action." A mutagen is a physical or chemical agent that changes genetic material, such as DNA, increasing the frequency of mutations to produce carcinogenic effects. The use of adjustment factors is recommended to account for the susceptibility of producing adverse health effects during early life stages from exposure to these mutagenic compounds.

In 2006, U.S. EPA published a memorandum which provides guidance regarding the preparation of health risk assessments should carcinogenic compounds elicit a mutagenic mode of action

¹ http://oehha.ca.gov/air/hot_spots/hotspots2015.html

(USEPA, 2006)². As presented in the technical memorandum, numerous compounds were identified as having a mutagenic mode of action. For diesel particulates, polycyclic aromatic hydrocarbons (PAHs) and their derivatives, which are known to exhibit a mutagenic mode of action, comprise < 1% of the exhaust particulate mass. To date, the U.S. Environmental Protection Agency reports that whole diesel engine exhaust has not been shown to elicit a mutagenic mode of action (USEPA, 2018).³

Additionally, the California Department of Toxic Substances Control (DTSC) which is charged with protecting individuals and the environment from the effects of toxic substances and responsible for assessing, investigating and evaluating sensitive receptor populations to ensure that properties are free of contamination or that health protective remediation levels are achieved has adopted the U.S. EPA's policy in the application of early-life exposure adjustments. As such, incorporation of early-life exposure adjustments for exposures to DPM emissions in the quantification of carcinogenic risk for construction of the proposed are not applicable because DPM does not have a mutagenic mode of action. Therefore, no modeling of DPM during Project construction as part of the HRA was conducted.

SIGNIFICANCE CRITERIA

The following significance criteria shown in Table 1, based on guidance from the SJVAPCD, are used in this report to assess the significance of public health risks.

TABLE 1 THRESHOLDS OF SIGNIFICANCE FOR PUBLIC HEALTH RISKS

<i>Risk Metric</i>	<i>Significance Threshold</i>
Residential Cancer Risk	20 per million
Workplace Cancer Risk	20 per million
Chronic and Acute non-cancer hazard Indices	non-cancer health hazard exposure index of 1.0

SOURCE: SJVAPCD, 2015.

As shown in Table 1, a project that contributes a cancer risk in excess of 20 new cases in a population of one million persons at identified receptors, or a non-cancer hazard index of greater than or equal to 1.0 would be considered to have a significant project-level impact.

² United States Environmental Protection Agency, 2006. Memorandum – Implementation of the Cancer Guidelines and Accompanying Supplemental Guidance - Science Policy Council Cancer Guidelines Implementation Workgroup Communication II: Performing Risk Assessments that include Carcinogens Described in the Supplemental Guidance as having a Mutagenic Mode of Action.

³ United States Environmental Protection Agency, National Center for Environmental Assessment, 2018. Integrated Risk Information System (IRIS). Diesel Engine Exhaust.

EMISSION SOURCES AND EXPOSURE

The main source of toxic air pollutants (TACs) within the proposed truck stop project is diesel particulate matter (DPM) from truck idle and mobile emissions, and the operation of Truck Refrigeration Units (TRUs). Based on numerous studies by the California Air Resources Board (ARB), DPM represents the largest single contributor to public health risks. Additionally, in its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks.

Emissions from the following project sources were analyzed and are shown in Table 2:

- Truck on-site mobile emissions
- Truck on-site idling emissions
- TRU generated emissions
- Construction-related off-road emissions

TABLE 2: EMISSION SOURCE ASSUMPTIONS

Source Type / Emission	Configuration	Assumptions
On-site Mobile Diesel Truck Circulation (DPM)	<i>Modeled as line-volume sources</i> Release Height = 6 ft Plume Height = 12 ft Plume Width = 12 ft (width of a truck) Line Lengths = based on path of travel	<ul style="list-style-type: none"> • On-site travel of 2,776 trucks per day (Fehr & Peers, 2021). All truck entering project site assumed to refuel. • Traveling distance based on proposed site plan layout. • PM₁₀ mobile emissions factor provided by EMFAC2021 (Parameters: San Joaquin County, Annual, Year 2021; emission factor for T7 Tractor)
On-site Diesel Truck Idling (DPM)	<i>Modeled as point sources</i> Release Height = 12 ft Diameter = 0.1 meter Velocity = 57.1 m/s @ 1500 rpm Temperature = 366 K	<ul style="list-style-type: none"> • On-site Idle of 2,776 trucks per day (Kimley-Horn, 2020) • 5 minutes idling per vehicle • Emissions Factors based on EMFAC 2014 Technical Documentation Guidebook average of summer and winter high idle emissions rates

TRUs (DPM)	<i>Modeled as point sources</i> Release Height = 13 ft Diameter = 0.044 meter Velocity = 49.0 m/s Temperature = 501 K	<ul style="list-style-type: none"> Trucks are assumed to run their TRUs for 15 minutes per hour (consistent with Mitigation Measure 3.3-2). 34 hp rated TRUs Emission factor (Source: ARB Guidelines for in-use Diesel-Fueled Transport Refrigeration Units TRU) 0.53 load factor 15% of trucks have TRUs bases on fleet mix (Source: ATA); also consistent with the land uses proposed for the project (15% of Project land uses were assumed to specifically include refrigerated storage).
Construction-related Off-road Emissions	<i>Modeled as a volume source</i> -Release Height = 8 ft. ⁴ -Base Elevation = Based on AERMAP terrain processor	<ul style="list-style-type: none"> On-site construction-related off-road emissions were modeled (based on the CalEEMod off-road emissions data).

DAILY TRUCK TRIPS

The total diesel truck trips generated by the proposed project is based on the Vehicle Miles Travelled (VMTA) and Transportation Impact Assessment (TIA) for the proposed project prepared by Fehr & Peers in February 2021. According to the VMTA and TIA, the average total daily truck traffic includes 5,552 heavy-duty truck trips per day.

⁴ Based on the average height of a construction tractor. See: <https://farmingshelter.com/tractors-sizes-weight-height-width/>

EMISSION RATES

Table 3 provides emissions rates by source and emissions rate. It should be noted that conservative emission rates were used. For example, year 2025 emission rates were used for the ‘Mobile Circulation’ sources, even though full buildout of the Project site is not anticipated until 2040, and even though emissions rates over the vast majority of the course of 70 or 40 years (for residential and workplace cancer risk, respectively) would be less than the 2025 emission rates. For full calculations, data outputs, and reference documents, please see Appendix 1.

TABLE 3: EMISSION RATES BY SOURCE

Source	Pollutant	Volume/Size	Emission Factor	Emissions Pounds/Year
On-site Diesel Truck Mobile Circulation (On-site)	Diesel Particulate Matter (DPM)	5,552 truck trips per day	0.00902406 g/mile	12.1
Off-site Diesel Truck Mobile Circulation (Off-site) ¹	Diesel Particulate Matter (DPM)	5,552 truck trips per day	0.00683151 g/mile	7.5
On-site Diesel Truck Idling	Diesel Particulate Matter (DPM)	2,776 trucks per day idling 5 min	0.25 g/hr -vehicle	46.5
Truck Refrigeration Units (TRUs)	Diesel Particulate Matter (DPM)	15% of all trucks, 34 hp rated TRU engines	0.02 g/hp-hr	2.16
On-site Construction-related Off-Road Equipment Activities	DPM	All Phases	N/A (Emissions as provided by CalEEMod)	71.35

SOURCES: EMFAC2021 (ON-SITE DIESEL TRUCK CIRCULATION); CALIFORNIA AIR RESOURCES BOARD, 2021.

NOTES: ¹OFF-SITE DIESEL TRUCK MOBILE CIRCULATION WAS MODELED AT LEAST 0.25 MILES BEYOND THE PROJECT SITE, PER SJVAPCD GUIDANCE, CONSISTENT WITH THE TRUCK ROUTES AND VOLUMES PROVIDED BY FEHR & PEERS.

EXPOSURE ASSESSMENT

Exposure assessment involves translating the emission rate (e.g., lbs/hr, g/hr) of individual toxic air contaminants into the concentration (e.g., grams/cubic meter g /sec m² or parts per million) of each toxic air contaminant. The key step in performing an exposure assessment is the application of an air dispersion model. The dispersion model incorporates the local meteorological data (wind speed, wind direction, local temperature, inversions, etc.), stack height, and exhaust flow characteristics, into the dispersion of individual air contaminant. The Lakes Environmental AERMOD Version 12.0.0 (AERMOD Version 23132) dispersion model was employed for this assessment.

Modeling Receptors: Receptors were placed at locations of nearby sensitive receptors, including residential and workplace locations. This allows for an analysis of the receptors that have the

potential be most affected by the TACs generated by the proposed project. Specifically, the residential receptors that were modeled include:

- The residences located along Airport way, southwest of the Project site;
- The residences located along French Camp Road, south/southwest of the Project site;
- The residences located at French Camp RV Park, south of the Project site;
- The residences west of the Project site (located approximately 1,700 feet to the west of the project site, at the nearest location) were modeled by proxy (i.e. by placing receptors closer to the Project site than the location of the actual receptors, thereby more conservatively accounting for the risk at these receptors);

Additionally, an 11 x 11 uniform cartesian discrete receptor grid was placed throughout the modeling area, at a distance of 300 meters apart. This allowed for the modeling of risks associated workplace receptors, as well as to provide improved accuracy for the risk contours (i.e. isopleths) for modeling overall.

Meteorological Data: Five years of meteorological data was used in the exposure assessment. The meteorological (“Met”) data (wind speed, wind direction, temperature, etc.) were recorded at the Stockton Airport location for the years 2013 through 2017.

RISK ASSESSMENT

Once the emissions rates of individual air contaminants have been calculated, and an air dispersion model has been run through AERMOD, the next step in determining health risks is to determine the cancer risk, and acute and chronic incident rates. Period and 1-hour dispersion files we used in combination with HARP-2 risk modelling software to calculate risk scenarios for residential, and workplace cancer rates, as well as acute and chronic incidences. The Hotspots Analysis and Reporting Program (HARP) is a software suite used to assist with the programmatic requirements of the Air Toxics “Hot Spots” Program [Assembly Bill (AB) 2588]. HARP combines the tools needed to implement the requirements of AB 2588, such as reporting a facilities emissions inventory, determining a facilities prioritization score, conducting air dispersion modeling, and performing a facility health risk assessment. This study utilized the HARP2 Air Dispersion and Risk Tool with dispersion plot files created in AERMOD. After the risk assessment was complete HARP-2, plot files were then imported back into AERMOD for spatial and visual representation, and analysis of impact areas.

The Intake Rate Percentile sets the intake rate at which a person is exposed to the air pollutant. This study utilized the high-end intake rate to assess risk at the 95th percentile exposure rate for risk scenarios (see Appendix 3 HARP-2 project summary report). Additionally, residential cancer risk is assessed using a 70-year exposure duration starting at the third trimester; workplace cancer risks are assessed at a 40-year exposure duration with age 16 being the first potential exposure year. For Project construction, since the construction schedule would occur over approximately fifteen years, residential cancer risk is assessed using a fifteen-year exposure

duration starting at the third trimester; workplace cancer risks are assessed at a 2-year exposure duration with age 16 being the first potential exposure year.

RISK ASSESSMENT RESULTS

The results of the risk analysis indicate that cancer risks vary depending on the exposure scenario (residential or worker) and on location. As would be expected, locations nearest the project area have the greatest exposure and the associated risks are considerably lower as distance from the project site increases. Table 4 displays the residential and workplace cancer risk, and acute and chronic incidence rate results at nearest receptors. Figure 1 provides wind patterns at the Stockton Airport location where meteorological data was used for the modeling.

TABLE 3.3-9: SUMMARY OF MAXIMUM HEALTH RISKS

RISK METRIC	MAXIMUM RISK	SIGNIFICANCE THRESHOLD	IS THRESHOLD EXCEEDED?
<i>OPERATIONAL</i>			
Residential Cancer Risk (70-year exposure)	15.0 per million	20 per million	No
Workplace Cancer Risk (40-year exposure)	6.10 per million	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥ 1	No
Acute (non-cancer)	<0.01	Hazard Index ≥ 1	No
<i>CONSTRUCTION</i>			
Residential Cancer Risk (15-year exposure)	1.24 per million	20 per million	No
Workplace Cancer Risk (15-year exposure)	0.28 per million	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥ 1	No
Acute (non-cancer) ¹	0	Hazard Index ≥ 1	No
<i>TOTAL</i>			
Residential Cancer Risk (Aggregate)	16.24 per million	20 per million	No
Workplace Cancer Risk (Aggregate)	6.38 per million	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥ 1	No
Acute (non-cancer) ¹	0	Hazard Index ≥ 1	No

SOURCES: AERMOD (LAKES ENVIRONMENTAL SOFTWARE, 2024); AND HARP-2 AIR DISPERSION AND RISK TOOL.

NOTE: ¹THERE ARE NO ACUTE RISKS ASSOCIATED WITH DPM.

The TAC emissions from the project result from the on-site truck travel, idling of diesel-fueled vehicles, and the operation of transport refrigeration units (TRU) used to transport perishable

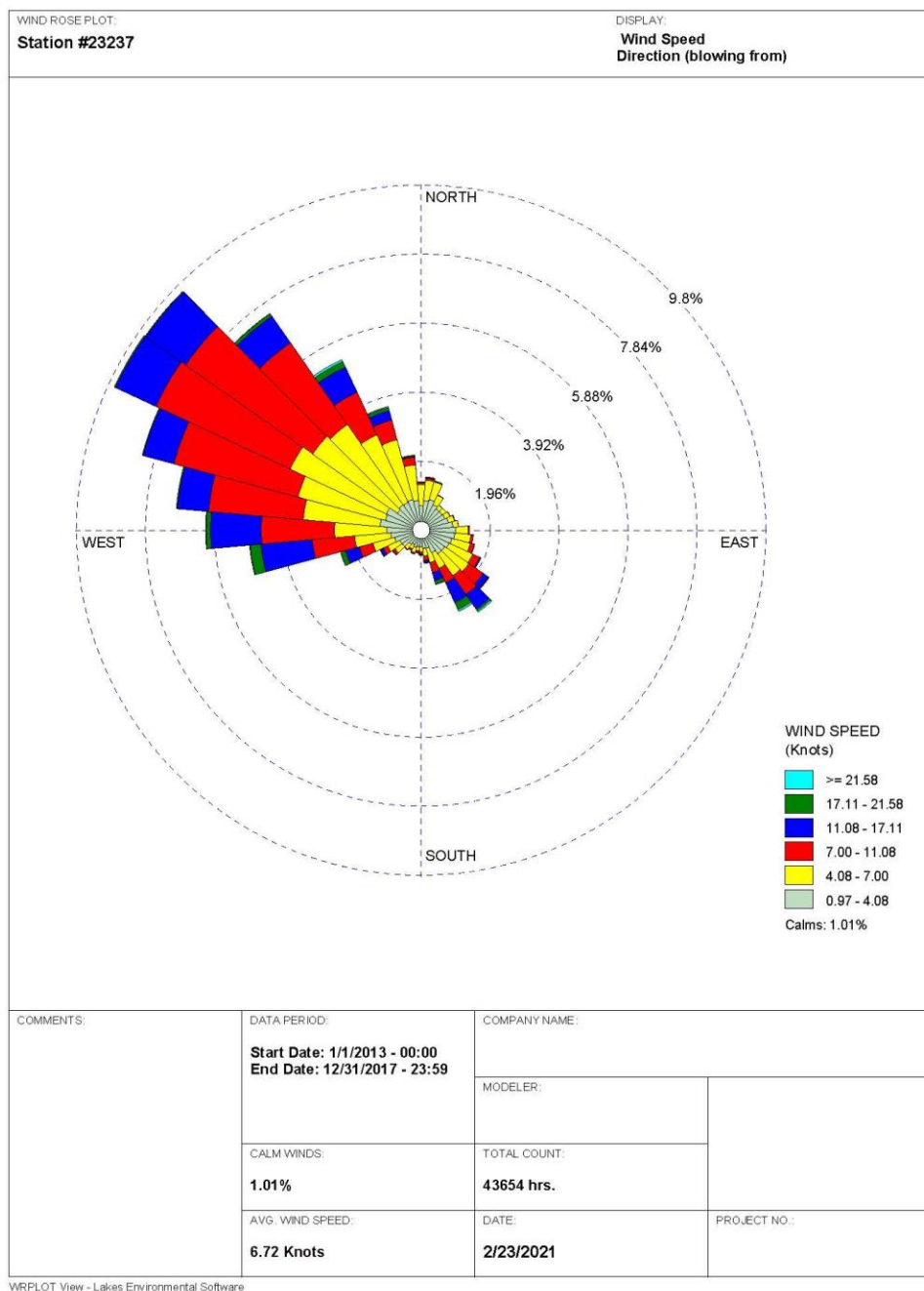
products. Additionally, within the sources of on-site DPM, the operation of trucks on-site produced the greatest DPM emissions and contributed substantially to overall project health risks, including cancer risk. Lastly, TACs would also occur during project construction activities.

Overall, the results show that residential 70-year cancer risk would remain below the threshold of 20 in a million at areas near the project site that contain residential receptors. However, it is very unlikely any individual would remain at the same location for 70 years; therefore, this result represents a conservative estimate. The sensitive receptors with the highest maximum risk for residential cancer risk (at a maximum of 15.0 cases of cancer per million people over a 70-year exposure, as shown in Table 3.3-9) are the residences located along Airport Way to the southwest of the Project site.

The results also show that 40-year workplace cancer risk would remain below the threshold of 20 in a million (the SJVPACD threshold) at the project site, with a maximum value measured million measured in the northern portion of the project site (the location of maximum cancer risk). The location with the highest workplace cancer risk is located within the center of the Project site, along Commerce Drive.

Chronic or long-term exposures and Acute exposure to DPM can result is non-cancer health effects. Chronic and Acute Non-Cancer Hazards results show that the acute and chronic risk on and near the project site would remain below the hazard index of ≥ 1 .

FIGURE-1: WIND PATTERNS (STOCKTON AIRPORT - 2013-2017) AIRPORT LOCATION APPROXIMATELY 1600 FEET NORTHEAST NORTHWEST OF THE PROJECT SITE.



Sources: Prepared by De Novo Planning group (2021); Lakes Environmental AERMOD View 9.9.0

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This document was prepared by De Novo Planning Group, Inc. of El Dorado Hills under the direction of the City of Stockton. De Novo Planning Group staff participating in document preparation included the following:

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Appendix 1 Emissions Calculations:

Mobile Truck Emissions - Commerce Drive

meters per mile: 1609.34 pounds per gram: 0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 1.28400462 miles
2. # of trucks trips per day: 5552 truck trips
3. PM10 Mobile Emissions Factor (San Joaquin County, Average of 5, 10, 15, 20, and 25 MPH, T7 Instate Heavy: **0.00902406 g/mile**

Source:

AERMOD
Fehr & Peers (TIA)
EMFAC2021

Therefore:

Total daily PM10 On-site Mobile Emissions Generated:

64.3306416 g/day-all trucks

0.14182462 lbs/day-all trucks

51.765986 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.011819 lbs/hour-all trucks

Mobile Truck Emissions - Building 1

meters per mile: 1609.34 pounds per gram: 0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 0.31342041 miles
2. # of trucks trips per day (prorated between 10 buildings): 555.2 trucks
3. PM10 Mobile Emissions Factor (San Joaquin County, Average of 5, 10, 15, 20, and 25 MPH, T7 Instate Heavy: 0.00902406 g/mile

Source:

AERMOD
Fehr & Peers (TIA)
EMFAC2021

Therefore:

Total daily PM10 On-site Mobile Emissions Generated by the project:

1.57028531 g/day-all trucks
0.00346188 lbs/day-all trucks
1.26358708 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.000288 lbs/hour-all trucks

Mobile Truck Emissions - Building 2

meters per mile: 1609.34 pounds per gram: 0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 0.384754 miles
2. # of trucks trips per day (prorated between 10 buildings): 555.2 trucks
3. PM10 Mobile Emissions Factor (San Joaquin County, Average of 5, 10, 15, 20, and 25 MPH, T7 Instate Heavy: 0.00902406 g/mile

Source:

AERMOD
Fehr & Peers (TIA)
EMFAC2021

Therefore:

Total daily PM10 On-site Mobile Emissions Generated by the project:

1.92767776 g/day-all trucks
0.0042498 lbs/day-all trucks
1.55117589 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.000354 lbs/hour-all trucks

Mobile Truck Emissions - Building 3

meters per mile: 1609.34 pounds per gram: 0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 0.44757478 miles
2. # of trucks trips per day (prorated between 10 buildings): 555.2 trucks
3. PM10 Mobile Emissions Factor (San Joaquin County, Average of 5, 10, 15, 20, and 25 MPH, T7 Instate Heavy: 0.00902406 g/mile

Source:

AERMOD
Fehr & Peers (TIA)
EMFAC2021

Therefore:

Total daily PM10 On-site Mobile Emissions Generated by the project:

2.24241972 g/day-all trucks
0.00494368 lbs/day-all trucks
1.80444443 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.000412 lbs/hour-all trucks

Mobile Truck Emissions - Building 4

meters per mile: 1609.34 pounds per gram: 0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 0.51027129 miles
2. # of trucks trips per day (prorated between 10 buildings): 555.2 trucks
3. PM10 Mobile Emissions Factor (San Joaquin County, Average of 5, 10, 15, 20, and 25 MPH, T7 Instate Heavy: 0.00902406 g/mile

Source:

AERMOD
Fehr & Peers (TIA)
EMFAC2021

Therefore:

Total daily PM10 On-site Mobile Emissions Generated by the project:

2.55653905 g/day-all trucks
0.0056362 lbs/day-all trucks
2.05721195 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.000470 lbs/hour-all trucks

Mobile Truck Emissions - Building 5

meters per mile: 1609.34 pounds per gram: 0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 0.1777126 miles
2. # of trucks trips per day (prorated between 10 buildings): 555.2 trucks
3. PM10 Mobile Emissions Factor (San Joaquin County, Average of 5, 10, 15, 20, and 25 MPH, T7 Instate Heavy: 0.00902406 g/mile

Source:

AERMOD
Fehr & Peers (TIA)
EMFAC2021

Therefore:

Total daily PM10 On-site Mobile Emissions Generated by the project:

0.89036796 g/day-all trucks
0.00196292 lbs/day-all trucks
0.7164669 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.000164 lbs/hour-all trucks

Mobile Truck Emissions - Building 6

meters per mile: 1609.34 pounds per gram: 0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 0.13900108 miles
2. # of trucks trips per day (prorated between 10 buildings): 555.2 trucks
3. PM10 Mobile Emissions Factor (San Joaquin County, Average of 5, 10, 15, 20, and 25 MPH, T7 Instate Heavy: 0.00902406 g/mile

Source:

AERMOD
Fehr & Peers (TIA)
EMFAC2021

Therefore:

Total daily PM10 On-site Mobile Emissions Generated by the project:

0.69641718 g/day-all trucks
0.00153534 lbs/day-all trucks
0.56039736 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.000128 lbs/hour-all trucks

Mobile Truck Emissions - Building 7

meters per mile: 1609.34 pounds per gram: 0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 0.07717449 miles
2. # of trucks trips per day (prorated between 10 buildings): 555.2 trucks
3. PM10 Mobile Emissions Factor (San Joaquin County, Average of 5, 10, 15, 20, and 25 MPH, T7 Instate Heavy: 0.00902406 g/mile

Therefore:

Total daily PM10 On-site Mobile Emissions Generated by the project:

0.3866563 g/day-all trucks

0.00085243 lbs/day-all trucks

0.31113702 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.000071 lbs/hour-all trucks

Mobile Truck Emissions - Building 8

meters per mile: 1609.34 pounds per gram: 0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 0.06940733 miles
2. # of trucks trips per day (prorated between 10 buildings): 555.2 trucks
3. PM10 Mobile Emissions Factor (San Joaquin County, Average of 5, 10, 15, 20, and 25 MPH, T7 Instate Heavy: 0.00902406 g/mile

Source:

AERMOD
Fehr & Peers (TIA)
EMFAC2021

Therefore:

Total daily PM10 On-site Mobile Emissions Generated by the project:

0.34774161 g/day-all trucks
0.00076664 lbs/day-all trucks
0.27982291 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.000064 lbs/hour-all trucks

Mobile Truck Emissions - Building 9

meters per mile: 1609.34 pounds per gram: 0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 0.0630072 miles
2. # of trucks trips per day (prorated between 10 buildings): 555.2 trucks
3. PM10 Mobile Emissions Factor (San Joaquin County, Average of 5, 10, 15, 20, and 25 MPH, T7 Instate Heavy: 0.00902406 g/mile

Source:

AERMOD
Fehr & Peers (TIA)
EMFAC2021

Therefore:

Total daily PM10 On-site Mobile Emissions Generated by the project:

0.31567591 g/day-all trucks
0.00069595 lbs/day-all trucks
0.25402008 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.000058 lbs/hour-all trucks

Mobile Truck Emissions - Building 10

meters per mile: 1609.34 pounds per gram: 0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 0.0578498 miles
2. # of trucks trips per day (prorated between 10 buildings): 555.2 trucks
3. PM10 Mobile Emissions Factor (San Joaquin County, Average of 5, 10, 15, 20, and 25 MPH, T7 Instate Heavy: 0.00902406 g/mile

Source:

AERMOD
Fehr & Peers (TIA)
EMFAC2021

Therefore:

Total daily PM10 On-site Mobile Emissions Generated by the project:

0.28983656 g/day-all trucks
0.00063898 lbs/day-all trucks
0.23322751 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.000053 lbs/hour-all trucks

Mobile Truck Emissions - Connection between Airport Way and Commerce Drive

meters per mile:

1609.34

pounds per gram:

0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 0.27893422 miles
2. # of trucks trips per day (all trucks): 5552 trucks
3. PM10 Mobile Emissions Factor (San Joaquin County, Average of 5, 10, 15, 20, and 25 MPH, T7 Instate Heavy: 0.00902406 g/mile

Source:

AERMOD
Fehr & Peers (TIA)
EMFAC2021

Therefore:

Total daily PM10 On-site Mobile Emissions Generated by the project:

13.9750411 g/day-all trucks

0.03080966 lbs/day-all trucks

11.2455241 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.002567 lbs/hour-all trucks

Mobile Truck Emissions - Airport Way (Northern Segment)

meters per mile:

1609.34

pounds per gram:

0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 0.29658121 miles
2. # of trucks trips per day (prorated between 10 buildings): 2831 trucks
3. PM10 Mobile Emissions Factor (San Joaquin County, 25 MPH, T7 Instate Heavy):
0.00683151 g/mile

Source:

AERMOD
Fehr & Peers (TIA)
EMFAC2021

Therefore:

Total daily PM10 On-site Mobile Emissions Generated by the project:

5.73588107 g/day-all trucks

0.01264544 lbs/day-all trucks

4.61558491 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.001054 lbs/hour-all trucks

Mobile Truck Emissions - Airport Way (Southern Segment)

meters per mile: 1609.34 pounds per gram: 0.002205

Assumptions:

1. Distance travelled on-site per truck (line segment): 0.5019449 miles
2. # of trucks trips per day (prorated between 10 buildings): 2721 trucks
3. PM10 Mobile Emissions Factor (San Joaquin County, 25 MPH, T7 Instate Heavy):
0.00683151 g/mile

Source:

AERMOD
Fehr & Peers (TIA)
EMFAC2021

Therefore:

Total daily PM10 On-site Mobile Emissions Generated by the project:

9.33042067 g/day-all trucks
0.02057003 lbs/day-all trucks
7.50806169 lbs/year-all trucks

Max Hr Emissions

Two times the average trip generation over the course of 1 hour, based on the given 24-hour daily totals (conservative estimate)

0.001714 lbs/hour-all trucks

Truck Idling

CARB EMFAC2021 idling emission factors for 2022 HHDT diesel trucks:

PM10	0.25 g/hr-truck	pounds per gram:	0.002205
	0.02083333 g/5 minutes-truck	Note: assuming 5 minutes of active idling per truck	
	0.02083333 g/day-truck		
	2776 Total # of trucks per day (note: truck trips are round trips; hence, total # of trucks is equal to half of truck trips)		
	57.8333333 g/day-all trucks		
	21109.1667 g/year-all trucks		
	46.537691 lbs/year-all trucks		
	2.40972222 g/hr-all trucks		
	0.04016204 g/min-all trucks		
	0.00066937 g/sec-all trucks		

As provided by the Traffic Impact Assessment (Fehr & Peers): 290.00 Peak hour truck trips (maximum peak hour truck trips is used for the sake of a conservative analysis)

6.04166667 g/5 minutes-26 vehicles
0.0133196 lbs/5 minutes-26 vehicles

Annual Emissions:	3.32412079 lbs/year-all trucks for ea	14 idling points
Max Hr Emissions:	0.0009514 for each sampling point, for max 1 hr	

Truck TRU (Idling)

0.02 g/hp-hr source: ARB
34 hp rated TRU engines

pounds per gram: 0.002205

0.15 15% of trucks are refrigerated trucks (based on the # of 500,000 trucks in the U.S being reefers and approximately 3.2 million trucks in use nationwide). Source ATA

0.53 Load Factor of 0.53 based Walmart Riverwalk Marketplace HRA Impact Sciences, Inc

0.25 Trucks are expected to run their TRUs for 15 minutes per hour (Leland Vilalvazo, phone conversation) On/Off Cycle Factor

2776 Total # of trucks per day (note: truck trips are round trips; hence, total # of trucks is equal to half the number of truck trips)

1 Max hours trucks are assumed to be idle on-site

37.51764 Emissions (g/day)

Total	
37.51764 Emissions (g/day)	
13,694 Emissions (g/year)	
30.190 Emissions (lbs/year)	
2.156 Emissions (lbs/year)	

Note: For each of the 14 point sources

Total Max 1 Hr	
4.689705 Emissions (g/hr)	
4.689705 Emissions (g/hour)	
0.01034 Emissions (lbs/hour)	
0.0007385 Emissions (lbs/hour)	

Note: For each of the 14 point sources

Construction Emissions (Off-Road Equipment)

365 days per year

Phase	Average Daily PM2.5	Unit	Days
Site Preparation (2024)	0.44	lbs/day	120 Source: CalEEMod (v2022.1)
Site Preparation (2025)	0.45	lbs/day	183 Source: CalEEMod (v2022.1)
Grading (2025)	0.41	lbs/day	183 Source: CalEEMod (v2022.1)
Grading (2026)	0.74	lbs/day	365 Source: CalEEMod (v2022.1)
Grading (2027)	0.60	lbs/day	319 Source: CalEEMod (v2022.1)
Building Construction (2027)	0.03	lbs/day	45 Source: CalEEMod (v2022.1)
Building Construction (2028)	0.20	lbs/day	365 Source: CalEEMod (v2022.1)
Building Construction (2029)	0.03	lbs/day	365 Source: CalEEMod (v2022.1)
Building Construction (2030)	0.17	lbs/day	365 Source: CalEEMod (v2022.1)
Building Construction (2031)	0.03	lbs/day	365 Source: CalEEMod (v2022.1)
Building Construction (2032)	0.15	lbs/day	365 Source: CalEEMod (v2022.1)
Building Construction (2033)	0.13	lbs/day	365 Source: CalEEMod (v2022.1)
Building Construction (2034)	0.02	lbs/day	365 Source: CalEEMod (v2022.1)
Building Construction (2035)	0.12	lbs/day	365 Source: CalEEMod (v2022.1)
Building Construction (2036)	0.11	lbs/day	365 Source: CalEEMod (v2022.1)
Building Construction (2037)	0.02	lbs/day	365 Source: CalEEMod (v2022.1)
Building Construction (2038)	0.10	lbs/day	364 Source: CalEEMod (v2022.1)
Paving (2028)	0.005	lbs/day	319 Source: CalEEMod (v2022.1)
Paving (2029)	0.03	lbs/day	365 Source: CalEEMod (v2022.1)
Paving (2030)	0.08	lbs/day	206 Source: CalEEMod (v2022.1)
Architectural Coating (2037)	0.005	lbs/day	45 Source: CalEEMod (v2022.1)
Architectural Coating (2038)	0.005	lbs/day	365 Source: CalEEMod (v2022.1)
Architectural Coating (2039)	0.005	lbs/day	358 Source: CalEEMod (v2022.1)

1099.995 lbs (total)

Given 185 months of total construction activities:

71.35102703 lbs/year (average)

Max Hr Emissions:

0.048870566 lbs/hour

Note: Assumes max hour is six times average rate

Split into 8 sources:

Split into:

8 sources

8.918878378 lbs/year (average)

Max Hr Emissions:

0.006108821 lbs/hour

Note: Assumes max hour is six times average rate

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Appendix 2 – AERMOD Output Files:


```

** Lakes Environmental AERMOD MPI
**
*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 2/22/2022
** File: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_FEIR\SSCC.ADI
**
*****
**
**
*****
** AERMOD Control Pathway
*****
**
**
CO STARTING
  TITLEONE C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S
  MODELOPT DFAULT CONC
  AVERTIME 1 PERIOD
  POLLUTID OTHER
  RUNORNOT RUN
  ERRORFIL SSCC.err
CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** -----
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-site Mobile (Commerce Drive)
** PREFIX
** Length of Side = 1.83
** Configuration = Adjacent
** Emission Rate = 1.0
** Vertical Dimension = 3.66
** SZINIT = 1.70
** Nodes = 2
** 656503.986, 4194000.105, 9.80, 3.66, 0.85
** 654437.910, 4193963.179, 8.27, 3.66, 0.85
** -----
LOCATION L0008807  VOLUME  656503.072 4194000.088 9.80
LOCATION L0008808  VOLUME  656501.243 4194000.056 9.80
LOCATION L0008809  VOLUME  656499.415 4194000.023 9.79
LOCATION L0008810  VOLUME  656497.586 4193999.990 9.79
LOCATION L0008811  VOLUME  656495.758 4193999.957 9.79
LOCATION L0008812  VOLUME  656493.929 4193999.925 9.78

```

LOCATION L0008813	VOLUME	656492.101	4193999.892	9.78
LOCATION L0008814	VOLUME	656490.272	4193999.859	9.77
LOCATION L0008815	VOLUME	656488.444	4193999.827	9.77
LOCATION L0008816	VOLUME	656486.615	4193999.794	9.76
LOCATION L0008817	VOLUME	656484.787	4193999.761	9.76
LOCATION L0008818	VOLUME	656482.958	4193999.729	9.75
LOCATION L0008819	VOLUME	656481.130	4193999.696	9.75
LOCATION L0008820	VOLUME	656479.301	4193999.663	9.75
LOCATION L0008821	VOLUME	656477.473	4193999.631	9.74
LOCATION L0008822	VOLUME	656475.644	4193999.598	9.74
LOCATION L0008823	VOLUME	656473.816	4193999.565	9.73
LOCATION L0008824	VOLUME	656471.987	4193999.533	9.73
LOCATION L0008825	VOLUME	656470.159	4193999.500	9.72
LOCATION L0008826	VOLUME	656468.330	4193999.467	9.72
LOCATION L0008827	VOLUME	656466.502	4193999.435	9.71
LOCATION L0008828	VOLUME	656464.673	4193999.402	9.71
LOCATION L0008829	VOLUME	656462.845	4193999.369	9.70
LOCATION L0008830	VOLUME	656461.016	4193999.337	9.70
LOCATION L0008831	VOLUME	656459.188	4193999.304	9.70
LOCATION L0008832	VOLUME	656457.359	4193999.271	9.69
LOCATION L0008833	VOLUME	656455.530	4193999.239	9.69
LOCATION L0008834	VOLUME	656453.702	4193999.206	9.68
LOCATION L0008835	VOLUME	656451.873	4193999.173	9.68
LOCATION L0008836	VOLUME	656450.045	4193999.140	9.68
LOCATION L0008837	VOLUME	656448.216	4193999.108	9.67
LOCATION L0008838	VOLUME	656446.388	4193999.075	9.67
LOCATION L0008839	VOLUME	656444.559	4193999.042	9.67
LOCATION L0008840	VOLUME	656442.731	4193999.010	9.66
LOCATION L0008841	VOLUME	656440.902	4193998.977	9.66
LOCATION L0008842	VOLUME	656439.074	4193998.944	9.66
LOCATION L0008843	VOLUME	656437.245	4193998.912	9.65
LOCATION L0008844	VOLUME	656435.417	4193998.879	9.65
LOCATION L0008845	VOLUME	656433.588	4193998.846	9.64
LOCATION L0008846	VOLUME	656431.760	4193998.814	9.64
LOCATION L0008847	VOLUME	656429.931	4193998.781	9.64
LOCATION L0008848	VOLUME	656428.103	4193998.748	9.63
LOCATION L0008849	VOLUME	656426.274	4193998.716	9.63
LOCATION L0008850	VOLUME	656424.446	4193998.683	9.63
LOCATION L0008851	VOLUME	656422.617	4193998.650	9.62
LOCATION L0008852	VOLUME	656420.789	4193998.618	9.62
LOCATION L0008853	VOLUME	656418.960	4193998.585	9.61
LOCATION L0008854	VOLUME	656417.132	4193998.552	9.61
LOCATION L0008855	VOLUME	656415.303	4193998.520	9.61
LOCATION L0008856	VOLUME	656413.475	4193998.487	9.60
LOCATION L0008857	VOLUME	656411.646	4193998.454	9.60
LOCATION L0008858	VOLUME	656409.818	4193998.422	9.60
LOCATION L0008859	VOLUME	656407.989	4193998.389	9.59
LOCATION L0008860	VOLUME	656406.161	4193998.356	9.59
LOCATION L0008861	VOLUME	656404.332	4193998.323	9.59
LOCATION L0008862	VOLUME	656402.504	4193998.291	9.58
LOCATION L0008863	VOLUME	656400.675	4193998.258	9.58
LOCATION L0008864	VOLUME	656398.847	4193998.225	9.57
LOCATION L0008865	VOLUME	656397.018	4193998.193	9.57
LOCATION L0008866	VOLUME	656395.190	4193998.160	9.57
LOCATION L0008867	VOLUME	656393.361	4193998.127	9.57

LOCATION L0008868	VOLUME	656391.533	4193998.095	9.56
LOCATION L0008869	VOLUME	656389.704	4193998.062	9.56
LOCATION L0008870	VOLUME	656387.876	4193998.029	9.56
LOCATION L0008871	VOLUME	656386.047	4193997.997	9.56
LOCATION L0008872	VOLUME	656384.219	4193997.964	9.55
LOCATION L0008873	VOLUME	656382.390	4193997.931	9.55
LOCATION L0008874	VOLUME	656380.562	4193997.899	9.55
LOCATION L0008875	VOLUME	656378.733	4193997.866	9.55
LOCATION L0008876	VOLUME	656376.905	4193997.833	9.55
LOCATION L0008877	VOLUME	656375.076	4193997.801	9.54
LOCATION L0008878	VOLUME	656373.248	4193997.768	9.54
LOCATION L0008879	VOLUME	656371.419	4193997.735	9.54
LOCATION L0008880	VOLUME	656369.591	4193997.703	9.54
LOCATION L0008881	VOLUME	656367.762	4193997.670	9.53
LOCATION L0008882	VOLUME	656365.934	4193997.637	9.53
LOCATION L0008883	VOLUME	656364.105	4193997.605	9.53
LOCATION L0008884	VOLUME	656362.277	4193997.572	9.52
LOCATION L0008885	VOLUME	656360.448	4193997.539	9.52
LOCATION L0008886	VOLUME	656358.620	4193997.506	9.52
LOCATION L0008887	VOLUME	656356.791	4193997.474	9.52
LOCATION L0008888	VOLUME	656354.963	4193997.441	9.51
LOCATION L0008889	VOLUME	656353.134	4193997.408	9.51
LOCATION L0008890	VOLUME	656351.306	4193997.376	9.51
LOCATION L0008891	VOLUME	656349.477	4193997.343	9.51
LOCATION L0008892	VOLUME	656347.649	4193997.310	9.50
LOCATION L0008893	VOLUME	656345.820	4193997.278	9.50
LOCATION L0008894	VOLUME	656343.992	4193997.245	9.50
LOCATION L0008895	VOLUME	656342.163	4193997.212	9.49
LOCATION L0008896	VOLUME	656340.334	4193997.180	9.49
LOCATION L0008897	VOLUME	656338.506	4193997.147	9.49
LOCATION L0008898	VOLUME	656336.677	4193997.114	9.49
LOCATION L0008899	VOLUME	656334.849	4193997.082	9.48
LOCATION L0008900	VOLUME	656333.020	4193997.049	9.48
LOCATION L0008901	VOLUME	656331.192	4193997.016	9.48
LOCATION L0008902	VOLUME	656329.363	4193996.984	9.48
LOCATION L0008903	VOLUME	656327.535	4193996.951	9.47
LOCATION L0008904	VOLUME	656325.706	4193996.918	9.47
LOCATION L0008905	VOLUME	656323.878	4193996.886	9.47
LOCATION L0008906	VOLUME	656322.049	4193996.853	9.46
LOCATION L0008907	VOLUME	656320.221	4193996.820	9.46
LOCATION L0008908	VOLUME	656318.392	4193996.788	9.45
LOCATION L0008909	VOLUME	656316.564	4193996.755	9.45
LOCATION L0008910	VOLUME	656314.735	4193996.722	9.45
LOCATION L0008911	VOLUME	656312.907	4193996.689	9.44
LOCATION L0008912	VOLUME	656311.078	4193996.657	9.44
LOCATION L0008913	VOLUME	656309.250	4193996.624	9.43
LOCATION L0008914	VOLUME	656307.421	4193996.591	9.43
LOCATION L0008915	VOLUME	656305.593	4193996.559	9.43
LOCATION L0008916	VOLUME	656303.764	4193996.526	9.43
LOCATION L0008917	VOLUME	656301.936	4193996.493	9.43
LOCATION L0008918	VOLUME	656300.107	4193996.461	9.42
LOCATION L0008919	VOLUME	656298.279	4193996.428	9.42
LOCATION L0008920	VOLUME	656296.450	4193996.395	9.42
LOCATION L0008921	VOLUME	656294.622	4193996.363	9.42
LOCATION L0008922	VOLUME	656292.793	4193996.330	9.42

LOCATION L0008923	VOLUME	656290.965	4193996.297	9.42
LOCATION L0008924	VOLUME	656289.136	4193996.265	9.42
LOCATION L0008925	VOLUME	656287.308	4193996.232	9.41
LOCATION L0008926	VOLUME	656285.479	4193996.199	9.41
LOCATION L0008927	VOLUME	656283.651	4193996.167	9.41
LOCATION L0008928	VOLUME	656281.822	4193996.134	9.40
LOCATION L0008929	VOLUME	656279.994	4193996.101	9.40
LOCATION L0008930	VOLUME	656278.165	4193996.069	9.40
LOCATION L0008931	VOLUME	656276.337	4193996.036	9.40
LOCATION L0008932	VOLUME	656274.508	4193996.003	9.39
LOCATION L0008933	VOLUME	656272.680	4193995.971	9.39
LOCATION L0008934	VOLUME	656270.851	4193995.938	9.39
LOCATION L0008935	VOLUME	656269.023	4193995.905	9.39
LOCATION L0008936	VOLUME	656267.194	4193995.873	9.39
LOCATION L0008937	VOLUME	656265.366	4193995.840	9.39
LOCATION L0008938	VOLUME	656263.537	4193995.807	9.38
LOCATION L0008939	VOLUME	656261.709	4193995.774	9.38
LOCATION L0008940	VOLUME	656259.880	4193995.742	9.38
LOCATION L0008941	VOLUME	656258.052	4193995.709	9.38
LOCATION L0008942	VOLUME	656256.223	4193995.676	9.38
LOCATION L0008943	VOLUME	656254.395	4193995.644	9.37
LOCATION L0008944	VOLUME	656252.566	4193995.611	9.37
LOCATION L0008945	VOLUME	656250.738	4193995.578	9.37
LOCATION L0008946	VOLUME	656248.909	4193995.546	9.36
LOCATION L0008947	VOLUME	656247.081	4193995.513	9.36
LOCATION L0008948	VOLUME	656245.252	4193995.480	9.36
LOCATION L0008949	VOLUME	656243.424	4193995.448	9.35
LOCATION L0008950	VOLUME	656241.595	4193995.415	9.35
LOCATION L0008951	VOLUME	656239.767	4193995.382	9.35
LOCATION L0008952	VOLUME	656237.938	4193995.350	9.35
LOCATION L0008953	VOLUME	656236.110	4193995.317	9.35
LOCATION L0008954	VOLUME	656234.281	4193995.284	9.34
LOCATION L0008955	VOLUME	656232.453	4193995.252	9.34
LOCATION L0008956	VOLUME	656230.624	4193995.219	9.34
LOCATION L0008957	VOLUME	656228.796	4193995.186	9.33
LOCATION L0008958	VOLUME	656226.967	4193995.154	9.33
LOCATION L0008959	VOLUME	656225.138	4193995.121	9.33
LOCATION L0008960	VOLUME	656223.310	4193995.088	9.32
LOCATION L0008961	VOLUME	656221.481	4193995.056	9.32
LOCATION L0008962	VOLUME	656219.653	4193995.023	9.32
LOCATION L0008963	VOLUME	656217.824	4193994.990	9.31
LOCATION L0008964	VOLUME	656215.996	4193994.957	9.31
LOCATION L0008965	VOLUME	656214.167	4193994.925	9.31
LOCATION L0008966	VOLUME	656212.339	4193994.892	9.30
LOCATION L0008967	VOLUME	656210.510	4193994.859	9.30
LOCATION L0008968	VOLUME	656208.682	4193994.827	9.30
LOCATION L0008969	VOLUME	656206.853	4193994.794	9.30
LOCATION L0008970	VOLUME	656205.025	4193994.761	9.30
LOCATION L0008971	VOLUME	656203.196	4193994.729	9.29
LOCATION L0008972	VOLUME	656201.368	4193994.696	9.29
LOCATION L0008973	VOLUME	656199.539	4193994.663	9.29
LOCATION L0008974	VOLUME	656197.711	4193994.631	9.29
LOCATION L0008975	VOLUME	656195.882	4193994.598	9.29
LOCATION L0008976	VOLUME	656194.054	4193994.565	9.28
LOCATION L0008977	VOLUME	656192.225	4193994.533	9.28

LOCATION L0008978	VOLUME	656190.397	4193994.500	9.28
LOCATION L0008979	VOLUME	656188.568	4193994.467	9.28
LOCATION L0008980	VOLUME	656186.740	4193994.435	9.28
LOCATION L0008981	VOLUME	656184.911	4193994.402	9.27
LOCATION L0008982	VOLUME	656183.083	4193994.369	9.27
LOCATION L0008983	VOLUME	656181.254	4193994.337	9.27
LOCATION L0008984	VOLUME	656179.426	4193994.304	9.26
LOCATION L0008985	VOLUME	656177.597	4193994.271	9.26
LOCATION L0008986	VOLUME	656175.769	4193994.239	9.26
LOCATION L0008987	VOLUME	656173.940	4193994.206	9.25
LOCATION L0008988	VOLUME	656172.112	4193994.173	9.25
LOCATION L0008989	VOLUME	656170.283	4193994.140	9.25
LOCATION L0008990	VOLUME	656168.455	4193994.108	9.24
LOCATION L0008991	VOLUME	656166.626	4193994.075	9.24
LOCATION L0008992	VOLUME	656164.798	4193994.042	9.24
LOCATION L0008993	VOLUME	656162.969	4193994.010	9.23
LOCATION L0008994	VOLUME	656161.141	4193993.977	9.23
LOCATION L0008995	VOLUME	656159.312	4193993.944	9.23
LOCATION L0008996	VOLUME	656157.484	4193993.912	9.23
LOCATION L0008997	VOLUME	656155.655	4193993.879	9.22
LOCATION L0008998	VOLUME	656153.827	4193993.846	9.22
LOCATION L0008999	VOLUME	656151.998	4193993.814	9.22
LOCATION L0009000	VOLUME	656150.170	4193993.781	9.21
LOCATION L0009001	VOLUME	656148.341	4193993.748	9.21
LOCATION L0009002	VOLUME	656146.513	4193993.716	9.20
LOCATION L0009003	VOLUME	656144.684	4193993.683	9.20
LOCATION L0009004	VOLUME	656142.856	4193993.650	9.20
LOCATION L0009005	VOLUME	656141.027	4193993.618	9.20
LOCATION L0009006	VOLUME	656139.199	4193993.585	9.20
LOCATION L0009007	VOLUME	656137.370	4193993.552	9.19
LOCATION L0009008	VOLUME	656135.542	4193993.520	9.19
LOCATION L0009009	VOLUME	656133.713	4193993.487	9.19
LOCATION L0009010	VOLUME	656131.885	4193993.454	9.19
LOCATION L0009011	VOLUME	656130.056	4193993.422	9.19
LOCATION L0009012	VOLUME	656128.228	4193993.389	9.18
LOCATION L0009013	VOLUME	656126.399	4193993.356	9.18
LOCATION L0009014	VOLUME	656124.571	4193993.323	9.18
LOCATION L0009015	VOLUME	656122.742	4193993.291	9.17
LOCATION L0009016	VOLUME	656120.914	4193993.258	9.17
LOCATION L0009017	VOLUME	656119.085	4193993.225	9.17
LOCATION L0009018	VOLUME	656117.257	4193993.193	9.16
LOCATION L0009019	VOLUME	656115.428	4193993.160	9.16
LOCATION L0009020	VOLUME	656113.600	4193993.127	9.16
LOCATION L0009021	VOLUME	656111.771	4193993.095	9.15
LOCATION L0009022	VOLUME	656109.942	4193993.062	9.15
LOCATION L0009023	VOLUME	656108.114	4193993.029	9.15
LOCATION L0009024	VOLUME	656106.285	4193992.997	9.14
LOCATION L0009025	VOLUME	656104.457	4193992.964	9.14
LOCATION L0009026	VOLUME	656102.628	4193992.931	9.14
LOCATION L0009027	VOLUME	656100.800	4193992.899	9.14
LOCATION L0009028	VOLUME	656098.971	4193992.866	9.13
LOCATION L0009029	VOLUME	656097.143	4193992.833	9.13
LOCATION L0009030	VOLUME	656095.314	4193992.801	9.13
LOCATION L0009031	VOLUME	656093.486	4193992.768	9.12
LOCATION L0009032	VOLUME	656091.657	4193992.735	9.12

LOCATION L0009033	VOLUME	656089.829	4193992.703	9.12
LOCATION L0009034	VOLUME	656088.000	4193992.670	9.11
LOCATION L0009035	VOLUME	656086.172	4193992.637	9.11
LOCATION L0009036	VOLUME	656084.343	4193992.605	9.11
LOCATION L0009037	VOLUME	656082.515	4193992.572	9.10
LOCATION L0009038	VOLUME	656080.686	4193992.539	9.10
LOCATION L0009039	VOLUME	656078.858	4193992.506	9.10
LOCATION L0009040	VOLUME	656077.029	4193992.474	9.10
LOCATION L0009041	VOLUME	656075.201	4193992.441	9.09
LOCATION L0009042	VOLUME	656073.372	4193992.408	9.09
LOCATION L0009043	VOLUME	656071.544	4193992.376	9.09
LOCATION L0009044	VOLUME	656069.715	4193992.343	9.08
LOCATION L0009045	VOLUME	656067.887	4193992.310	9.08
LOCATION L0009046	VOLUME	656066.058	4193992.278	9.08
LOCATION L0009047	VOLUME	656064.230	4193992.245	9.07
LOCATION L0009048	VOLUME	656062.401	4193992.212	9.07
LOCATION L0009049	VOLUME	656060.573	4193992.180	9.07
LOCATION L0009050	VOLUME	656058.744	4193992.147	9.06
LOCATION L0009051	VOLUME	656056.916	4193992.114	9.06
LOCATION L0009052	VOLUME	656055.087	4193992.082	9.06
LOCATION L0009053	VOLUME	656053.259	4193992.049	9.05
LOCATION L0009054	VOLUME	656051.430	4193992.016	9.05
LOCATION L0009055	VOLUME	656049.602	4193991.984	9.05
LOCATION L0009056	VOLUME	656047.773	4193991.951	9.05
LOCATION L0009057	VOLUME	656045.945	4193991.918	9.04
LOCATION L0009058	VOLUME	656044.116	4193991.886	9.04
LOCATION L0009059	VOLUME	656042.288	4193991.853	9.04
LOCATION L0009060	VOLUME	656040.459	4193991.820	9.03
LOCATION L0009061	VOLUME	656038.631	4193991.788	9.03
LOCATION L0009062	VOLUME	656036.802	4193991.755	9.03
LOCATION L0009063	VOLUME	656034.974	4193991.722	9.02
LOCATION L0009064	VOLUME	656033.145	4193991.690	9.02
LOCATION L0009065	VOLUME	656031.317	4193991.657	9.02
LOCATION L0009066	VOLUME	656029.488	4193991.624	9.01
LOCATION L0009067	VOLUME	656027.660	4193991.591	9.01
LOCATION L0009068	VOLUME	656025.831	4193991.559	9.00
LOCATION L0009069	VOLUME	656024.003	4193991.526	9.00
LOCATION L0009070	VOLUME	656022.174	4193991.493	9.00
LOCATION L0009071	VOLUME	656020.346	4193991.461	8.99
LOCATION L0009072	VOLUME	656018.517	4193991.428	8.99
LOCATION L0009073	VOLUME	656016.689	4193991.395	8.99
LOCATION L0009074	VOLUME	656014.860	4193991.363	8.98
LOCATION L0009075	VOLUME	656013.032	4193991.330	8.98
LOCATION L0009076	VOLUME	656011.203	4193991.297	8.98
LOCATION L0009077	VOLUME	656009.375	4193991.265	8.98
LOCATION L0009078	VOLUME	656007.546	4193991.232	8.97
LOCATION L0009079	VOLUME	656005.718	4193991.199	8.97
LOCATION L0009080	VOLUME	656003.889	4193991.167	8.97
LOCATION L0009081	VOLUME	656002.061	4193991.134	8.97
LOCATION L0009082	VOLUME	656000.232	4193991.101	8.96
LOCATION L0009083	VOLUME	655998.403	4193991.069	8.96
LOCATION L0009084	VOLUME	655996.575	4193991.036	8.96
LOCATION L0009085	VOLUME	655994.746	4193991.003	8.96
LOCATION L0009086	VOLUME	655992.918	4193990.971	8.95
LOCATION L0009087	VOLUME	655991.089	4193990.938	8.95

LOCATION L0009088	VOLUME	655989.261	4193990.905	8.95
LOCATION L0009089	VOLUME	655987.432	4193990.873	8.95
LOCATION L0009090	VOLUME	655985.604	4193990.840	8.95
LOCATION L0009091	VOLUME	655983.775	4193990.807	8.94
LOCATION L0009092	VOLUME	655981.947	4193990.774	8.94
LOCATION L0009093	VOLUME	655980.118	4193990.742	8.94
LOCATION L0009094	VOLUME	655978.290	4193990.709	8.93
LOCATION L0009095	VOLUME	655976.461	4193990.676	8.93
LOCATION L0009096	VOLUME	655974.633	4193990.644	8.93
LOCATION L0009097	VOLUME	655972.804	4193990.611	8.92
LOCATION L0009098	VOLUME	655970.976	4193990.578	8.92
LOCATION L0009099	VOLUME	655969.147	4193990.546	8.92
LOCATION L0009100	VOLUME	655967.319	4193990.513	8.91
LOCATION L0009101	VOLUME	655965.490	4193990.480	8.91
LOCATION L0009102	VOLUME	655963.662	4193990.448	8.91
LOCATION L0009103	VOLUME	655961.833	4193990.415	8.91
LOCATION L0009104	VOLUME	655960.005	4193990.382	8.90
LOCATION L0009105	VOLUME	655958.176	4193990.350	8.90
LOCATION L0009106	VOLUME	655956.348	4193990.317	8.90
LOCATION L0009107	VOLUME	655954.519	4193990.284	8.90
LOCATION L0009108	VOLUME	655952.691	4193990.252	8.89
LOCATION L0009109	VOLUME	655950.862	4193990.219	8.89
LOCATION L0009110	VOLUME	655949.034	4193990.186	8.89
LOCATION L0009111	VOLUME	655947.205	4193990.154	8.88
LOCATION L0009112	VOLUME	655945.377	4193990.121	8.88
LOCATION L0009113	VOLUME	655943.548	4193990.088	8.88
LOCATION L0009114	VOLUME	655941.720	4193990.056	8.87
LOCATION L0009115	VOLUME	655939.891	4193990.023	8.87
LOCATION L0009116	VOLUME	655938.063	4193989.990	8.87
LOCATION L0009117	VOLUME	655936.234	4193989.957	8.86
LOCATION L0009118	VOLUME	655934.406	4193989.925	8.86
LOCATION L0009119	VOLUME	655932.577	4193989.892	8.86
LOCATION L0009120	VOLUME	655930.749	4193989.859	8.85
LOCATION L0009121	VOLUME	655928.920	4193989.827	8.85
LOCATION L0009122	VOLUME	655927.092	4193989.794	8.85
LOCATION L0009123	VOLUME	655925.263	4193989.761	8.85
LOCATION L0009124	VOLUME	655923.435	4193989.729	8.84
LOCATION L0009125	VOLUME	655921.606	4193989.696	8.84
LOCATION L0009126	VOLUME	655919.778	4193989.663	8.84
LOCATION L0009127	VOLUME	655917.949	4193989.631	8.84
LOCATION L0009128	VOLUME	655916.121	4193989.598	8.83
LOCATION L0009129	VOLUME	655914.292	4193989.565	8.83
LOCATION L0009130	VOLUME	655912.464	4193989.533	8.83
LOCATION L0009131	VOLUME	655910.635	4193989.500	8.82
LOCATION L0009132	VOLUME	655908.807	4193989.467	8.82
LOCATION L0009133	VOLUME	655906.978	4193989.435	8.81
LOCATION L0009134	VOLUME	655905.150	4193989.402	8.81
LOCATION L0009135	VOLUME	655903.321	4193989.369	8.81
LOCATION L0009136	VOLUME	655901.493	4193989.337	8.81
LOCATION L0009137	VOLUME	655899.664	4193989.304	8.80
LOCATION L0009138	VOLUME	655897.836	4193989.271	8.80
LOCATION L0009139	VOLUME	655896.007	4193989.239	8.80
LOCATION L0009140	VOLUME	655894.179	4193989.206	8.79
LOCATION L0009141	VOLUME	655892.350	4193989.173	8.79
LOCATION L0009142	VOLUME	655890.522	4193989.140	8.79

LOCATION L0009143	VOLUME	655888.693	4193989.108	8.79
LOCATION L0009144	VOLUME	655886.865	4193989.075	8.78
LOCATION L0009145	VOLUME	655885.036	4193989.042	8.78
LOCATION L0009146	VOLUME	655883.207	4193989.010	8.78
LOCATION L0009147	VOLUME	655881.379	4193988.977	8.77
LOCATION L0009148	VOLUME	655879.550	4193988.944	8.77
LOCATION L0009149	VOLUME	655877.722	4193988.912	8.77
LOCATION L0009150	VOLUME	655875.893	4193988.879	8.77
LOCATION L0009151	VOLUME	655874.065	4193988.846	8.76
LOCATION L0009152	VOLUME	655872.236	4193988.814	8.76
LOCATION L0009153	VOLUME	655870.408	4193988.781	8.75
LOCATION L0009154	VOLUME	655868.579	4193988.748	8.75
LOCATION L0009155	VOLUME	655866.751	4193988.716	8.75
LOCATION L0009156	VOLUME	655864.922	4193988.683	8.74
LOCATION L0009157	VOLUME	655863.094	4193988.650	8.74
LOCATION L0009158	VOLUME	655861.265	4193988.618	8.74
LOCATION L0009159	VOLUME	655859.437	4193988.585	8.73
LOCATION L0009160	VOLUME	655857.608	4193988.552	8.73
LOCATION L0009161	VOLUME	655855.780	4193988.520	8.73
LOCATION L0009162	VOLUME	655853.951	4193988.487	8.73
LOCATION L0009163	VOLUME	655852.123	4193988.454	8.72
LOCATION L0009164	VOLUME	655850.294	4193988.422	8.72
LOCATION L0009165	VOLUME	655848.466	4193988.389	8.72
LOCATION L0009166	VOLUME	655846.637	4193988.356	8.72
LOCATION L0009167	VOLUME	655844.809	4193988.323	8.72
LOCATION L0009168	VOLUME	655842.980	4193988.291	8.71
LOCATION L0009169	VOLUME	655841.152	4193988.258	8.71
LOCATION L0009170	VOLUME	655839.323	4193988.225	8.71
LOCATION L0009171	VOLUME	655837.495	4193988.193	8.70
LOCATION L0009172	VOLUME	655835.666	4193988.160	8.70
LOCATION L0009173	VOLUME	655833.838	4193988.127	8.70
LOCATION L0009174	VOLUME	655832.009	4193988.095	8.69
LOCATION L0009175	VOLUME	655830.181	4193988.062	8.69
LOCATION L0009176	VOLUME	655828.352	4193988.029	8.69
LOCATION L0009177	VOLUME	655826.524	4193987.997	8.69
LOCATION L0009178	VOLUME	655824.695	4193987.964	8.68
LOCATION L0009179	VOLUME	655822.867	4193987.931	8.68
LOCATION L0009180	VOLUME	655821.038	4193987.899	8.68
LOCATION L0009181	VOLUME	655819.210	4193987.866	8.68
LOCATION L0009182	VOLUME	655817.381	4193987.833	8.67
LOCATION L0009183	VOLUME	655815.553	4193987.801	8.67
LOCATION L0009184	VOLUME	655813.724	4193987.768	8.67
LOCATION L0009185	VOLUME	655811.896	4193987.735	8.66
LOCATION L0009186	VOLUME	655810.067	4193987.703	8.66
LOCATION L0009187	VOLUME	655808.239	4193987.670	8.66
LOCATION L0009188	VOLUME	655806.410	4193987.637	8.66
LOCATION L0009189	VOLUME	655804.582	4193987.605	8.65
LOCATION L0009190	VOLUME	655802.753	4193987.572	8.65
LOCATION L0009191	VOLUME	655800.925	4193987.539	8.65
LOCATION L0009192	VOLUME	655799.096	4193987.506	8.65
LOCATION L0009193	VOLUME	655797.268	4193987.474	8.64
LOCATION L0009194	VOLUME	655795.439	4193987.441	8.64
LOCATION L0009195	VOLUME	655793.611	4193987.408	8.63
LOCATION L0009196	VOLUME	655791.782	4193987.376	8.63
LOCATION L0009197	VOLUME	655789.954	4193987.343	8.63

LOCATION L0009198	VOLUME	655788.125	4193987.310	8.62
LOCATION L0009199	VOLUME	655786.297	4193987.278	8.62
LOCATION L0009200	VOLUME	655784.468	4193987.245	8.62
LOCATION L0009201	VOLUME	655782.640	4193987.212	8.62
LOCATION L0009202	VOLUME	655780.811	4193987.180	8.61
LOCATION L0009203	VOLUME	655778.983	4193987.147	8.61
LOCATION L0009204	VOLUME	655777.154	4193987.114	8.61
LOCATION L0009205	VOLUME	655775.326	4193987.082	8.61
LOCATION L0009206	VOLUME	655773.497	4193987.049	8.60
LOCATION L0009207	VOLUME	655771.669	4193987.016	8.60
LOCATION L0009208	VOLUME	655769.840	4193986.984	8.60
LOCATION L0009209	VOLUME	655768.011	4193986.951	8.59
LOCATION L0009210	VOLUME	655766.183	4193986.918	8.59
LOCATION L0009211	VOLUME	655764.354	4193986.886	8.59
LOCATION L0009212	VOLUME	655762.526	4193986.853	8.58
LOCATION L0009213	VOLUME	655760.697	4193986.820	8.58
LOCATION L0009214	VOLUME	655758.869	4193986.788	8.58
LOCATION L0009215	VOLUME	655757.040	4193986.755	8.58
LOCATION L0009216	VOLUME	655755.212	4193986.722	8.57
LOCATION L0009217	VOLUME	655753.383	4193986.690	8.57
LOCATION L0009218	VOLUME	655751.555	4193986.657	8.57
LOCATION L0009219	VOLUME	655749.726	4193986.624	8.57
LOCATION L0009220	VOLUME	655747.898	4193986.591	8.56
LOCATION L0009221	VOLUME	655746.069	4193986.559	8.56
LOCATION L0009222	VOLUME	655744.241	4193986.526	8.56
LOCATION L0009223	VOLUME	655742.412	4193986.493	8.55
LOCATION L0009224	VOLUME	655740.584	4193986.461	8.55
LOCATION L0009225	VOLUME	655738.755	4193986.428	8.55
LOCATION L0009226	VOLUME	655736.927	4193986.395	8.55
LOCATION L0009227	VOLUME	655735.098	4193986.363	8.54
LOCATION L0009228	VOLUME	655733.270	4193986.330	8.54
LOCATION L0009229	VOLUME	655731.441	4193986.297	8.54
LOCATION L0009230	VOLUME	655729.613	4193986.265	8.54
LOCATION L0009231	VOLUME	655727.784	4193986.232	8.53
LOCATION L0009232	VOLUME	655725.956	4193986.199	8.53
LOCATION L0009233	VOLUME	655724.127	4193986.167	8.53
LOCATION L0009234	VOLUME	655722.299	4193986.134	8.52
LOCATION L0009235	VOLUME	655720.470	4193986.101	8.52
LOCATION L0009236	VOLUME	655718.642	4193986.069	8.52
LOCATION L0009237	VOLUME	655716.813	4193986.036	8.51
LOCATION L0009238	VOLUME	655714.985	4193986.003	8.51
LOCATION L0009239	VOLUME	655713.156	4193985.971	8.51
LOCATION L0009240	VOLUME	655711.328	4193985.938	8.50
LOCATION L0009241	VOLUME	655709.499	4193985.905	8.50
LOCATION L0009242	VOLUME	655707.671	4193985.873	8.50
LOCATION L0009243	VOLUME	655705.842	4193985.840	8.50
LOCATION L0009244	VOLUME	655704.014	4193985.807	8.49
LOCATION L0009245	VOLUME	655702.185	4193985.774	8.49
LOCATION L0009246	VOLUME	655700.357	4193985.742	8.49
LOCATION L0009247	VOLUME	655698.528	4193985.709	8.48
LOCATION L0009248	VOLUME	655696.700	4193985.676	8.48
LOCATION L0009249	VOLUME	655694.871	4193985.644	8.48
LOCATION L0009250	VOLUME	655693.043	4193985.611	8.48
LOCATION L0009251	VOLUME	655691.214	4193985.578	8.47
LOCATION L0009252	VOLUME	655689.386	4193985.546	8.47

LOCATION L0009253	VOLUME	655687.557	4193985.513	8.47
LOCATION L0009254	VOLUME	655685.729	4193985.480	8.46
LOCATION L0009255	VOLUME	655683.900	4193985.448	8.46
LOCATION L0009256	VOLUME	655682.072	4193985.415	8.46
LOCATION L0009257	VOLUME	655680.243	4193985.382	8.46
LOCATION L0009258	VOLUME	655678.415	4193985.350	8.45
LOCATION L0009259	VOLUME	655676.586	4193985.317	8.45
LOCATION L0009260	VOLUME	655674.758	4193985.284	8.45
LOCATION L0009261	VOLUME	655672.929	4193985.252	8.44
LOCATION L0009262	VOLUME	655671.101	4193985.219	8.44
LOCATION L0009263	VOLUME	655669.272	4193985.186	8.44
LOCATION L0009264	VOLUME	655667.444	4193985.154	8.44
LOCATION L0009265	VOLUME	655665.615	4193985.121	8.43
LOCATION L0009266	VOLUME	655663.787	4193985.088	8.43
LOCATION L0009267	VOLUME	655661.958	4193985.056	8.43
LOCATION L0009268	VOLUME	655660.130	4193985.023	8.43
LOCATION L0009269	VOLUME	655658.301	4193984.990	8.42
LOCATION L0009270	VOLUME	655656.473	4193984.957	8.42
LOCATION L0009271	VOLUME	655654.644	4193984.925	8.42
LOCATION L0009272	VOLUME	655652.815	4193984.892	8.41
LOCATION L0009273	VOLUME	655650.987	4193984.859	8.41
LOCATION L0009274	VOLUME	655649.158	4193984.827	8.41
LOCATION L0009275	VOLUME	655647.330	4193984.794	8.40
LOCATION L0009276	VOLUME	655645.501	4193984.761	8.40
LOCATION L0009277	VOLUME	655643.673	4193984.729	8.40
LOCATION L0009278	VOLUME	655641.844	4193984.696	8.39
LOCATION L0009279	VOLUME	655640.016	4193984.663	8.39
LOCATION L0009280	VOLUME	655638.187	4193984.631	8.39
LOCATION L0009281	VOLUME	655636.359	4193984.598	8.39
LOCATION L0009282	VOLUME	655634.530	4193984.565	8.38
LOCATION L0009283	VOLUME	655632.702	4193984.533	8.38
LOCATION L0009284	VOLUME	655630.873	4193984.500	8.38
LOCATION L0009285	VOLUME	655629.045	4193984.467	8.38
LOCATION L0009286	VOLUME	655627.216	4193984.435	8.37
LOCATION L0009287	VOLUME	655625.388	4193984.402	8.37
LOCATION L0009288	VOLUME	655623.559	4193984.369	8.37
LOCATION L0009289	VOLUME	655621.731	4193984.337	8.36
LOCATION L0009290	VOLUME	655619.902	4193984.304	8.36
LOCATION L0009291	VOLUME	655618.074	4193984.271	8.36
LOCATION L0009292	VOLUME	655616.245	4193984.239	8.36
LOCATION L0009293	VOLUME	655614.417	4193984.206	8.35
LOCATION L0009294	VOLUME	655612.588	4193984.173	8.35
LOCATION L0009295	VOLUME	655610.760	4193984.140	8.35
LOCATION L0009296	VOLUME	655608.931	4193984.108	8.35
LOCATION L0009297	VOLUME	655607.103	4193984.075	8.34
LOCATION L0009298	VOLUME	655605.274	4193984.042	8.34
LOCATION L0009299	VOLUME	655603.446	4193984.010	8.34
LOCATION L0009300	VOLUME	655601.617	4193983.977	8.33
LOCATION L0009301	VOLUME	655599.789	4193983.944	8.33
LOCATION L0009302	VOLUME	655597.960	4193983.912	8.33
LOCATION L0009303	VOLUME	655596.132	4193983.879	8.33
LOCATION L0009304	VOLUME	655594.303	4193983.846	8.32
LOCATION L0009305	VOLUME	655592.475	4193983.814	8.32
LOCATION L0009306	VOLUME	655590.646	4193983.781	8.32
LOCATION L0009307	VOLUME	655588.818	4193983.748	8.31

LOCATION L0009308	VOLUME	655586.989	4193983.716	8.31
LOCATION L0009309	VOLUME	655585.161	4193983.683	8.31
LOCATION L0009310	VOLUME	655583.332	4193983.650	8.31
LOCATION L0009311	VOLUME	655581.504	4193983.618	8.30
LOCATION L0009312	VOLUME	655579.675	4193983.585	8.30
LOCATION L0009313	VOLUME	655577.847	4193983.552	8.30
LOCATION L0009314	VOLUME	655576.018	4193983.520	8.30
LOCATION L0009315	VOLUME	655574.190	4193983.487	8.29
LOCATION L0009316	VOLUME	655572.361	4193983.454	8.29
LOCATION L0009317	VOLUME	655570.533	4193983.422	8.29
LOCATION L0009318	VOLUME	655568.704	4193983.389	8.28
LOCATION L0009319	VOLUME	655566.876	4193983.356	8.28
LOCATION L0009320	VOLUME	655565.047	4193983.323	8.28
LOCATION L0009321	VOLUME	655563.219	4193983.291	8.27
LOCATION L0009322	VOLUME	655561.390	4193983.258	8.27
LOCATION L0009323	VOLUME	655559.562	4193983.225	8.27
LOCATION L0009324	VOLUME	655557.733	4193983.193	8.26
LOCATION L0009325	VOLUME	655555.905	4193983.160	8.26
LOCATION L0009326	VOLUME	655554.076	4193983.127	8.25
LOCATION L0009327	VOLUME	655552.248	4193983.095	8.25
LOCATION L0009328	VOLUME	655550.419	4193983.062	8.25
LOCATION L0009329	VOLUME	655548.591	4193983.029	8.24
LOCATION L0009330	VOLUME	655546.762	4193982.997	8.24
LOCATION L0009331	VOLUME	655544.934	4193982.964	8.23
LOCATION L0009332	VOLUME	655543.105	4193982.931	8.23
LOCATION L0009333	VOLUME	655541.277	4193982.899	8.22
LOCATION L0009334	VOLUME	655539.448	4193982.866	8.22
LOCATION L0009335	VOLUME	655537.619	4193982.833	8.22
LOCATION L0009336	VOLUME	655535.791	4193982.801	8.21
LOCATION L0009337	VOLUME	655533.962	4193982.768	8.21
LOCATION L0009338	VOLUME	655532.134	4193982.735	8.20
LOCATION L0009339	VOLUME	655530.305	4193982.703	8.20
LOCATION L0009340	VOLUME	655528.477	4193982.670	8.19
LOCATION L0009341	VOLUME	655526.648	4193982.637	8.19
LOCATION L0009342	VOLUME	655524.820	4193982.605	8.18
LOCATION L0009343	VOLUME	655522.991	4193982.572	8.18
LOCATION L0009344	VOLUME	655521.163	4193982.539	8.18
LOCATION L0009345	VOLUME	655519.334	4193982.507	8.17
LOCATION L0009346	VOLUME	655517.506	4193982.474	8.17
LOCATION L0009347	VOLUME	655515.677	4193982.441	8.16
LOCATION L0009348	VOLUME	655513.849	4193982.408	8.16
LOCATION L0009349	VOLUME	655512.020	4193982.376	8.16
LOCATION L0009350	VOLUME	655510.192	4193982.343	8.15
LOCATION L0009351	VOLUME	655508.363	4193982.310	8.15
LOCATION L0009352	VOLUME	655506.535	4193982.278	8.15
LOCATION L0009353	VOLUME	655504.706	4193982.245	8.14
LOCATION L0009354	VOLUME	655502.878	4193982.212	8.14
LOCATION L0009355	VOLUME	655501.049	4193982.180	8.13
LOCATION L0009356	VOLUME	655499.221	4193982.147	8.13
LOCATION L0009357	VOLUME	655497.392	4193982.114	8.12
LOCATION L0009358	VOLUME	655495.564	4193982.082	8.12
LOCATION L0009359	VOLUME	655493.735	4193982.049	8.11
LOCATION L0009360	VOLUME	655491.907	4193982.016	8.11
LOCATION L0009361	VOLUME	655490.078	4193981.984	8.10
LOCATION L0009362	VOLUME	655488.250	4193981.951	8.10

LOCATION L0009363	VOLUME	655486.421	4193981.918	8.10
LOCATION L0009364	VOLUME	655484.593	4193981.886	8.09
LOCATION L0009365	VOLUME	655482.764	4193981.853	8.09
LOCATION L0009366	VOLUME	655480.936	4193981.820	8.09
LOCATION L0009367	VOLUME	655479.107	4193981.788	8.09
LOCATION L0009368	VOLUME	655477.279	4193981.755	8.08
LOCATION L0009369	VOLUME	655475.450	4193981.722	8.08
LOCATION L0009370	VOLUME	655473.622	4193981.690	8.08
LOCATION L0009371	VOLUME	655471.793	4193981.657	8.08
LOCATION L0009372	VOLUME	655469.965	4193981.624	8.07
LOCATION L0009373	VOLUME	655468.136	4193981.591	8.07
LOCATION L0009374	VOLUME	655466.308	4193981.559	8.07
LOCATION L0009375	VOLUME	655464.479	4193981.526	8.06
LOCATION L0009376	VOLUME	655462.651	4193981.493	8.06
LOCATION L0009377	VOLUME	655460.822	4193981.461	8.06
LOCATION L0009378	VOLUME	655458.994	4193981.428	8.05
LOCATION L0009379	VOLUME	655457.165	4193981.395	8.05
LOCATION L0009380	VOLUME	655455.337	4193981.363	8.04
LOCATION L0009381	VOLUME	655453.508	4193981.330	8.04
LOCATION L0009382	VOLUME	655451.680	4193981.297	8.03
LOCATION L0009383	VOLUME	655449.851	4193981.265	8.03
LOCATION L0009384	VOLUME	655448.023	4193981.232	8.02
LOCATION L0009385	VOLUME	655446.194	4193981.199	8.02
LOCATION L0009386	VOLUME	655444.366	4193981.167	8.01
LOCATION L0009387	VOLUME	655442.537	4193981.134	8.01
LOCATION L0009388	VOLUME	655440.709	4193981.101	8.01
LOCATION L0009389	VOLUME	655438.880	4193981.069	8.00
LOCATION L0009390	VOLUME	655437.052	4193981.036	8.00
LOCATION L0009391	VOLUME	655435.223	4193981.003	7.99
LOCATION L0009392	VOLUME	655433.395	4193980.971	7.99
LOCATION L0009393	VOLUME	655431.566	4193980.938	7.99
LOCATION L0009394	VOLUME	655429.738	4193980.905	7.98
LOCATION L0009395	VOLUME	655427.909	4193980.873	7.98
LOCATION L0009396	VOLUME	655426.080	4193980.840	7.97
LOCATION L0009397	VOLUME	655424.252	4193980.807	7.96
LOCATION L0009398	VOLUME	655422.423	4193980.774	7.96
LOCATION L0009399	VOLUME	655420.595	4193980.742	7.95
LOCATION L0009400	VOLUME	655418.766	4193980.709	7.95
LOCATION L0009401	VOLUME	655416.938	4193980.676	7.94
LOCATION L0009402	VOLUME	655415.109	4193980.644	7.93
LOCATION L0009403	VOLUME	655413.281	4193980.611	7.93
LOCATION L0009404	VOLUME	655411.452	4193980.578	7.92
LOCATION L0009405	VOLUME	655409.624	4193980.546	7.91
LOCATION L0009406	VOLUME	655407.795	4193980.513	7.91
LOCATION L0009407	VOLUME	655405.967	4193980.480	7.90
LOCATION L0009408	VOLUME	655404.138	4193980.448	7.90
LOCATION L0009409	VOLUME	655402.310	4193980.415	7.89
LOCATION L0009410	VOLUME	655400.481	4193980.382	7.89
LOCATION L0009411	VOLUME	655398.653	4193980.350	7.88
LOCATION L0009412	VOLUME	655396.824	4193980.317	7.88
LOCATION L0009413	VOLUME	655394.996	4193980.284	7.88
LOCATION L0009414	VOLUME	655393.167	4193980.252	7.87
LOCATION L0009415	VOLUME	655391.339	4193980.219	7.87
LOCATION L0009416	VOLUME	655389.510	4193980.186	7.86
LOCATION L0009417	VOLUME	655387.682	4193980.154	7.86

LOCATION L0009418	VOLUME	655385.853	4193980.121	7.85
LOCATION L0009419	VOLUME	655384.025	4193980.088	7.85
LOCATION L0009420	VOLUME	655382.196	4193980.056	7.84
LOCATION L0009421	VOLUME	655380.368	4193980.023	7.84
LOCATION L0009422	VOLUME	655378.539	4193979.990	7.83
LOCATION L0009423	VOLUME	655376.711	4193979.957	7.83
LOCATION L0009424	VOLUME	655374.882	4193979.925	7.83
LOCATION L0009425	VOLUME	655373.054	4193979.892	7.82
LOCATION L0009426	VOLUME	655371.225	4193979.859	7.82
LOCATION L0009427	VOLUME	655369.397	4193979.827	7.81
LOCATION L0009428	VOLUME	655367.568	4193979.794	7.81
LOCATION L0009429	VOLUME	655365.740	4193979.761	7.80
LOCATION L0009430	VOLUME	655363.911	4193979.729	7.80
LOCATION L0009431	VOLUME	655362.083	4193979.696	7.79
LOCATION L0009432	VOLUME	655360.254	4193979.663	7.79
LOCATION L0009433	VOLUME	655358.426	4193979.631	7.78
LOCATION L0009434	VOLUME	655356.597	4193979.598	7.78
LOCATION L0009435	VOLUME	655354.769	4193979.565	7.77
LOCATION L0009436	VOLUME	655352.940	4193979.533	7.77
LOCATION L0009437	VOLUME	655351.112	4193979.500	7.76
LOCATION L0009438	VOLUME	655349.283	4193979.467	7.76
LOCATION L0009439	VOLUME	655347.455	4193979.435	7.75
LOCATION L0009440	VOLUME	655345.626	4193979.402	7.75
LOCATION L0009441	VOLUME	655343.798	4193979.369	7.74
LOCATION L0009442	VOLUME	655341.969	4193979.337	7.74
LOCATION L0009443	VOLUME	655340.141	4193979.304	7.74
LOCATION L0009444	VOLUME	655338.312	4193979.271	7.73
LOCATION L0009445	VOLUME	655336.484	4193979.239	7.73
LOCATION L0009446	VOLUME	655334.655	4193979.206	7.73
LOCATION L0009447	VOLUME	655332.827	4193979.173	7.72
LOCATION L0009448	VOLUME	655330.998	4193979.140	7.72
LOCATION L0009449	VOLUME	655329.170	4193979.108	7.72
LOCATION L0009450	VOLUME	655327.341	4193979.075	7.71
LOCATION L0009451	VOLUME	655325.513	4193979.042	7.71
LOCATION L0009452	VOLUME	655323.684	4193979.010	7.71
LOCATION L0009453	VOLUME	655321.856	4193978.977	7.70
LOCATION L0009454	VOLUME	655320.027	4193978.944	7.70
LOCATION L0009455	VOLUME	655318.199	4193978.912	7.69
LOCATION L0009456	VOLUME	655316.370	4193978.879	7.69
LOCATION L0009457	VOLUME	655314.542	4193978.846	7.69
LOCATION L0009458	VOLUME	655312.713	4193978.814	7.68
LOCATION L0009459	VOLUME	655310.884	4193978.781	7.68
LOCATION L0009460	VOLUME	655309.056	4193978.748	7.67
LOCATION L0009461	VOLUME	655307.227	4193978.716	7.67
LOCATION L0009462	VOLUME	655305.399	4193978.683	7.66
LOCATION L0009463	VOLUME	655303.570	4193978.650	7.66
LOCATION L0009464	VOLUME	655301.742	4193978.618	7.66
LOCATION L0009465	VOLUME	655299.913	4193978.585	7.65
LOCATION L0009466	VOLUME	655298.085	4193978.552	7.65
LOCATION L0009467	VOLUME	655296.256	4193978.520	7.65
LOCATION L0009468	VOLUME	655294.428	4193978.487	7.64
LOCATION L0009469	VOLUME	655292.599	4193978.454	7.64
LOCATION L0009470	VOLUME	655290.771	4193978.422	7.64
LOCATION L0009471	VOLUME	655288.942	4193978.389	7.63
LOCATION L0009472	VOLUME	655287.114	4193978.356	7.63

LOCATION L0009473	VOLUME	655285.285	4193978.323	7.62
LOCATION L0009474	VOLUME	655283.457	4193978.291	7.62
LOCATION L0009475	VOLUME	655281.628	4193978.258	7.62
LOCATION L0009476	VOLUME	655279.800	4193978.225	7.61
LOCATION L0009477	VOLUME	655277.971	4193978.193	7.61
LOCATION L0009478	VOLUME	655276.143	4193978.160	7.60
LOCATION L0009479	VOLUME	655274.314	4193978.127	7.60
LOCATION L0009480	VOLUME	655272.486	4193978.095	7.60
LOCATION L0009481	VOLUME	655270.657	4193978.062	7.59
LOCATION L0009482	VOLUME	655268.829	4193978.029	7.59
LOCATION L0009483	VOLUME	655267.000	4193977.997	7.58
LOCATION L0009484	VOLUME	655265.172	4193977.964	7.57
LOCATION L0009485	VOLUME	655263.343	4193977.931	7.57
LOCATION L0009486	VOLUME	655261.515	4193977.899	7.57
LOCATION L0009487	VOLUME	655259.686	4193977.866	7.56
LOCATION L0009488	VOLUME	655257.858	4193977.833	7.56
LOCATION L0009489	VOLUME	655256.029	4193977.801	7.55
LOCATION L0009490	VOLUME	655254.201	4193977.768	7.55
LOCATION L0009491	VOLUME	655252.372	4193977.735	7.55
LOCATION L0009492	VOLUME	655250.544	4193977.703	7.54
LOCATION L0009493	VOLUME	655248.715	4193977.670	7.54
LOCATION L0009494	VOLUME	655246.887	4193977.637	7.54
LOCATION L0009495	VOLUME	655245.058	4193977.605	7.53
LOCATION L0009496	VOLUME	655243.230	4193977.572	7.53
LOCATION L0009497	VOLUME	655241.401	4193977.539	7.53
LOCATION L0009498	VOLUME	655239.573	4193977.507	7.52
LOCATION L0009499	VOLUME	655237.744	4193977.474	7.52
LOCATION L0009500	VOLUME	655235.916	4193977.441	7.52
LOCATION L0009501	VOLUME	655234.087	4193977.408	7.51
LOCATION L0009502	VOLUME	655232.259	4193977.376	7.51
LOCATION L0009503	VOLUME	655230.430	4193977.343	7.51
LOCATION L0009504	VOLUME	655228.602	4193977.310	7.50
LOCATION L0009505	VOLUME	655226.773	4193977.278	7.50
LOCATION L0009506	VOLUME	655224.945	4193977.245	7.49
LOCATION L0009507	VOLUME	655223.116	4193977.212	7.49
LOCATION L0009508	VOLUME	655221.288	4193977.180	7.49
LOCATION L0009509	VOLUME	655219.459	4193977.147	7.48
LOCATION L0009510	VOLUME	655217.631	4193977.114	7.48
LOCATION L0009511	VOLUME	655215.802	4193977.082	7.47
LOCATION L0009512	VOLUME	655213.974	4193977.049	7.47
LOCATION L0009513	VOLUME	655212.145	4193977.016	7.47
LOCATION L0009514	VOLUME	655210.317	4193976.984	7.47
LOCATION L0009515	VOLUME	655208.488	4193976.951	7.46
LOCATION L0009516	VOLUME	655206.660	4193976.918	7.46
LOCATION L0009517	VOLUME	655204.831	4193976.886	7.46
LOCATION L0009518	VOLUME	655203.003	4193976.853	7.45
LOCATION L0009519	VOLUME	655201.174	4193976.820	7.45
LOCATION L0009520	VOLUME	655199.346	4193976.788	7.45
LOCATION L0009521	VOLUME	655197.517	4193976.755	7.45
LOCATION L0009522	VOLUME	655195.688	4193976.722	7.44
LOCATION L0009523	VOLUME	655193.860	4193976.690	7.44
LOCATION L0009524	VOLUME	655192.031	4193976.657	7.44
LOCATION L0009525	VOLUME	655190.203	4193976.624	7.44
LOCATION L0009526	VOLUME	655188.374	4193976.591	7.44
LOCATION L0009527	VOLUME	655186.546	4193976.559	7.44

LOCATION L0009528	VOLUME	655184.717	4193976.526	7.43
LOCATION L0009529	VOLUME	655182.889	4193976.493	7.43
LOCATION L0009530	VOLUME	655181.060	4193976.461	7.43
LOCATION L0009531	VOLUME	655179.232	4193976.428	7.43
LOCATION L0009532	VOLUME	655177.403	4193976.395	7.42
LOCATION L0009533	VOLUME	655175.575	4193976.363	7.42
LOCATION L0009534	VOLUME	655173.746	4193976.330	7.42
LOCATION L0009535	VOLUME	655171.918	4193976.297	7.42
LOCATION L0009536	VOLUME	655170.089	4193976.265	7.42
LOCATION L0009537	VOLUME	655168.261	4193976.232	7.42
LOCATION L0009538	VOLUME	655166.432	4193976.199	7.41
LOCATION L0009539	VOLUME	655164.604	4193976.167	7.41
LOCATION L0009540	VOLUME	655162.775	4193976.134	7.41
LOCATION L0009541	VOLUME	655160.947	4193976.101	7.41
LOCATION L0009542	VOLUME	655159.118	4193976.069	7.40
LOCATION L0009543	VOLUME	655157.290	4193976.036	7.40
LOCATION L0009544	VOLUME	655155.461	4193976.003	7.40
LOCATION L0009545	VOLUME	655153.633	4193975.971	7.39
LOCATION L0009546	VOLUME	655151.804	4193975.938	7.39
LOCATION L0009547	VOLUME	655149.976	4193975.905	7.39
LOCATION L0009548	VOLUME	655148.147	4193975.873	7.39
LOCATION L0009549	VOLUME	655146.319	4193975.840	7.38
LOCATION L0009550	VOLUME	655144.490	4193975.807	7.38
LOCATION L0009551	VOLUME	655142.662	4193975.774	7.38
LOCATION L0009552	VOLUME	655140.833	4193975.742	7.38
LOCATION L0009553	VOLUME	655139.005	4193975.709	7.37
LOCATION L0009554	VOLUME	655137.176	4193975.676	7.37
LOCATION L0009555	VOLUME	655135.348	4193975.644	7.37
LOCATION L0009556	VOLUME	655133.519	4193975.611	7.37
LOCATION L0009557	VOLUME	655131.691	4193975.578	7.36
LOCATION L0009558	VOLUME	655129.862	4193975.546	7.36
LOCATION L0009559	VOLUME	655128.034	4193975.513	7.36
LOCATION L0009560	VOLUME	655126.205	4193975.480	7.35
LOCATION L0009561	VOLUME	655124.377	4193975.448	7.35
LOCATION L0009562	VOLUME	655122.548	4193975.415	7.35
LOCATION L0009563	VOLUME	655120.720	4193975.382	7.34
LOCATION L0009564	VOLUME	655118.891	4193975.350	7.34
LOCATION L0009565	VOLUME	655117.063	4193975.317	7.34
LOCATION L0009566	VOLUME	655115.234	4193975.284	7.34
LOCATION L0009567	VOLUME	655113.406	4193975.252	7.33
LOCATION L0009568	VOLUME	655111.577	4193975.219	7.33
LOCATION L0009569	VOLUME	655109.749	4193975.186	7.33
LOCATION L0009570	VOLUME	655107.920	4193975.154	7.33
LOCATION L0009571	VOLUME	655106.092	4193975.121	7.33
LOCATION L0009572	VOLUME	655104.263	4193975.088	7.32
LOCATION L0009573	VOLUME	655102.435	4193975.056	7.32
LOCATION L0009574	VOLUME	655100.606	4193975.023	7.32
LOCATION L0009575	VOLUME	655098.778	4193974.990	7.32
LOCATION L0009576	VOLUME	655096.949	4193974.957	7.32
LOCATION L0009577	VOLUME	655095.121	4193974.925	7.31
LOCATION L0009578	VOLUME	655093.292	4193974.892	7.31
LOCATION L0009579	VOLUME	655091.464	4193974.859	7.31
LOCATION L0009580	VOLUME	655089.635	4193974.827	7.31
LOCATION L0009581	VOLUME	655087.807	4193974.794	7.31
LOCATION L0009582	VOLUME	655085.978	4193974.761	7.30

LOCATION L0009583	VOLUME	655084.150	4193974.729	7.30
LOCATION L0009584	VOLUME	655082.321	4193974.696	7.30
LOCATION L0009585	VOLUME	655080.492	4193974.663	7.30
LOCATION L0009586	VOLUME	655078.664	4193974.631	7.30
LOCATION L0009587	VOLUME	655076.835	4193974.598	7.30
LOCATION L0009588	VOLUME	655075.007	4193974.565	7.29
LOCATION L0009589	VOLUME	655073.178	4193974.533	7.29
LOCATION L0009590	VOLUME	655071.350	4193974.500	7.29
LOCATION L0009591	VOLUME	655069.521	4193974.467	7.29
LOCATION L0009592	VOLUME	655067.693	4193974.435	7.29
LOCATION L0009593	VOLUME	655065.864	4193974.402	7.28
LOCATION L0009594	VOLUME	655064.036	4193974.369	7.28
LOCATION L0009595	VOLUME	655062.207	4193974.337	7.28
LOCATION L0009596	VOLUME	655060.379	4193974.304	7.28
LOCATION L0009597	VOLUME	655058.550	4193974.271	7.27
LOCATION L0009598	VOLUME	655056.722	4193974.239	7.27
LOCATION L0009599	VOLUME	655054.893	4193974.206	7.27
LOCATION L0009600	VOLUME	655053.065	4193974.173	7.26
LOCATION L0009601	VOLUME	655051.236	4193974.140	7.26
LOCATION L0009602	VOLUME	655049.408	4193974.108	7.26
LOCATION L0009603	VOLUME	655047.579	4193974.075	7.26
LOCATION L0009604	VOLUME	655045.751	4193974.042	7.26
LOCATION L0009605	VOLUME	655043.922	4193974.010	7.26
LOCATION L0009606	VOLUME	655042.094	4193973.977	7.26
LOCATION L0009607	VOLUME	655040.265	4193973.944	7.26
LOCATION L0009608	VOLUME	655038.437	4193973.912	7.26
LOCATION L0009609	VOLUME	655036.608	4193973.879	7.26
LOCATION L0009610	VOLUME	655034.780	4193973.846	7.25
LOCATION L0009611	VOLUME	655032.951	4193973.814	7.25
LOCATION L0009612	VOLUME	655031.123	4193973.781	7.25
LOCATION L0009613	VOLUME	655029.294	4193973.748	7.25
LOCATION L0009614	VOLUME	655027.466	4193973.716	7.25
LOCATION L0009615	VOLUME	655025.637	4193973.683	7.24
LOCATION L0009616	VOLUME	655023.809	4193973.650	7.24
LOCATION L0009617	VOLUME	655021.980	4193973.618	7.24
LOCATION L0009618	VOLUME	655020.152	4193973.585	7.24
LOCATION L0009619	VOLUME	655018.323	4193973.552	7.24
LOCATION L0009620	VOLUME	655016.495	4193973.520	7.24
LOCATION L0009621	VOLUME	655014.666	4193973.487	7.23
LOCATION L0009622	VOLUME	655012.838	4193973.454	7.23
LOCATION L0009623	VOLUME	655011.009	4193973.422	7.23
LOCATION L0009624	VOLUME	655009.181	4193973.389	7.23
LOCATION L0009625	VOLUME	655007.352	4193973.356	7.23
LOCATION L0009626	VOLUME	655005.524	4193973.324	7.23
LOCATION L0009627	VOLUME	655003.695	4193973.291	7.22
LOCATION L0009628	VOLUME	655001.867	4193973.258	7.22
LOCATION L0009629	VOLUME	655000.038	4193973.225	7.22
LOCATION L0009630	VOLUME	654998.210	4193973.193	7.22
LOCATION L0009631	VOLUME	654996.381	4193973.160	7.22
LOCATION L0009632	VOLUME	654994.553	4193973.127	7.22
LOCATION L0009633	VOLUME	654992.724	4193973.095	7.22
LOCATION L0009634	VOLUME	654990.896	4193973.062	7.21
LOCATION L0009635	VOLUME	654989.067	4193973.029	7.21
LOCATION L0009636	VOLUME	654987.239	4193972.997	7.21
LOCATION L0009637	VOLUME	654985.410	4193972.964	7.21

LOCATION L0009638	VOLUME	654983.582	4193972.931	7.21
LOCATION L0009639	VOLUME	654981.753	4193972.899	7.20
LOCATION L0009640	VOLUME	654979.925	4193972.866	7.20
LOCATION L0009641	VOLUME	654978.096	4193972.833	7.20
LOCATION L0009642	VOLUME	654976.268	4193972.801	7.20
LOCATION L0009643	VOLUME	654974.439	4193972.768	7.19
LOCATION L0009644	VOLUME	654972.611	4193972.735	7.19
LOCATION L0009645	VOLUME	654970.782	4193972.703	7.19
LOCATION L0009646	VOLUME	654968.953	4193972.670	7.19
LOCATION L0009647	VOLUME	654967.125	4193972.637	7.19
LOCATION L0009648	VOLUME	654965.296	4193972.605	7.18
LOCATION L0009649	VOLUME	654963.468	4193972.572	7.18
LOCATION L0009650	VOLUME	654961.639	4193972.539	7.18
LOCATION L0009651	VOLUME	654959.811	4193972.507	7.18
LOCATION L0009652	VOLUME	654957.982	4193972.474	7.18
LOCATION L0009653	VOLUME	654956.154	4193972.441	7.17
LOCATION L0009654	VOLUME	654954.325	4193972.408	7.17
LOCATION L0009655	VOLUME	654952.497	4193972.376	7.17
LOCATION L0009656	VOLUME	654950.668	4193972.343	7.17
LOCATION L0009657	VOLUME	654948.840	4193972.310	7.17
LOCATION L0009658	VOLUME	654947.011	4193972.278	7.16
LOCATION L0009659	VOLUME	654945.183	4193972.245	7.16
LOCATION L0009660	VOLUME	654943.354	4193972.212	7.16
LOCATION L0009661	VOLUME	654941.526	4193972.180	7.16
LOCATION L0009662	VOLUME	654939.697	4193972.147	7.16
LOCATION L0009663	VOLUME	654937.869	4193972.114	7.16
LOCATION L0009664	VOLUME	654936.040	4193972.082	7.15
LOCATION L0009665	VOLUME	654934.212	4193972.049	7.15
LOCATION L0009666	VOLUME	654932.383	4193972.016	7.15
LOCATION L0009667	VOLUME	654930.555	4193971.984	7.15
LOCATION L0009668	VOLUME	654928.726	4193971.951	7.15
LOCATION L0009669	VOLUME	654926.898	4193971.918	7.14
LOCATION L0009670	VOLUME	654925.069	4193971.886	7.14
LOCATION L0009671	VOLUME	654923.241	4193971.853	7.14
LOCATION L0009672	VOLUME	654921.412	4193971.820	7.14
LOCATION L0009673	VOLUME	654919.584	4193971.788	7.14
LOCATION L0009674	VOLUME	654917.755	4193971.755	7.14
LOCATION L0009675	VOLUME	654915.927	4193971.722	7.13
LOCATION L0009676	VOLUME	654914.098	4193971.690	7.13
LOCATION L0009677	VOLUME	654912.270	4193971.657	7.13
LOCATION L0009678	VOLUME	654910.441	4193971.624	7.12
LOCATION L0009679	VOLUME	654908.613	4193971.591	7.12
LOCATION L0009680	VOLUME	654906.784	4193971.559	7.12
LOCATION L0009681	VOLUME	654904.956	4193971.526	7.11
LOCATION L0009682	VOLUME	654903.127	4193971.493	7.11
LOCATION L0009683	VOLUME	654901.299	4193971.461	7.11
LOCATION L0009684	VOLUME	654899.470	4193971.428	7.11
LOCATION L0009685	VOLUME	654897.642	4193971.395	7.10
LOCATION L0009686	VOLUME	654895.813	4193971.363	7.10
LOCATION L0009687	VOLUME	654893.985	4193971.330	7.10
LOCATION L0009688	VOLUME	654892.156	4193971.297	7.10
LOCATION L0009689	VOLUME	654890.328	4193971.265	7.09
LOCATION L0009690	VOLUME	654888.499	4193971.232	7.09
LOCATION L0009691	VOLUME	654886.671	4193971.199	7.09
LOCATION L0009692	VOLUME	654884.842	4193971.167	7.08

LOCATION L0009693	VOLUME	654883.014	4193971.134	7.08
LOCATION L0009694	VOLUME	654881.185	4193971.101	7.08
LOCATION L0009695	VOLUME	654879.357	4193971.069	7.08
LOCATION L0009696	VOLUME	654877.528	4193971.036	7.07
LOCATION L0009697	VOLUME	654875.700	4193971.003	7.07
LOCATION L0009698	VOLUME	654873.871	4193970.971	7.07
LOCATION L0009699	VOLUME	654872.043	4193970.938	7.07
LOCATION L0009700	VOLUME	654870.214	4193970.905	7.07
LOCATION L0009701	VOLUME	654868.386	4193970.873	7.07
LOCATION L0009702	VOLUME	654866.557	4193970.840	7.06
LOCATION L0009703	VOLUME	654864.729	4193970.807	7.06
LOCATION L0009704	VOLUME	654862.900	4193970.774	7.06
LOCATION L0009705	VOLUME	654861.072	4193970.742	7.05
LOCATION L0009706	VOLUME	654859.243	4193970.709	7.05
LOCATION L0009707	VOLUME	654857.415	4193970.676	7.05
LOCATION L0009708	VOLUME	654855.586	4193970.644	7.05
LOCATION L0009709	VOLUME	654853.757	4193970.611	7.04
LOCATION L0009710	VOLUME	654851.929	4193970.578	7.04
LOCATION L0009711	VOLUME	654850.100	4193970.546	7.04
LOCATION L0009712	VOLUME	654848.272	4193970.513	7.03
LOCATION L0009713	VOLUME	654846.443	4193970.480	7.03
LOCATION L0009714	VOLUME	654844.615	4193970.448	7.03
LOCATION L0009715	VOLUME	654842.786	4193970.415	7.03
LOCATION L0009716	VOLUME	654840.958	4193970.382	7.02
LOCATION L0009717	VOLUME	654839.129	4193970.350	7.02
LOCATION L0009718	VOLUME	654837.301	4193970.317	7.02
LOCATION L0009719	VOLUME	654835.472	4193970.284	7.01
LOCATION L0009720	VOLUME	654833.644	4193970.252	7.01
LOCATION L0009721	VOLUME	654831.815	4193970.219	7.01
LOCATION L0009722	VOLUME	654829.987	4193970.186	7.00
LOCATION L0009723	VOLUME	654828.158	4193970.154	7.00
LOCATION L0009724	VOLUME	654826.330	4193970.121	7.00
LOCATION L0009725	VOLUME	654824.501	4193970.088	6.99
LOCATION L0009726	VOLUME	654822.673	4193970.056	6.99
LOCATION L0009727	VOLUME	654820.844	4193970.023	6.99
LOCATION L0009728	VOLUME	654819.016	4193969.990	6.99
LOCATION L0009729	VOLUME	654817.187	4193969.957	6.98
LOCATION L0009730	VOLUME	654815.359	4193969.925	6.98
LOCATION L0009731	VOLUME	654813.530	4193969.892	6.98
LOCATION L0009732	VOLUME	654811.702	4193969.859	6.97
LOCATION L0009733	VOLUME	654809.873	4193969.827	6.97
LOCATION L0009734	VOLUME	654808.045	4193969.794	6.97
LOCATION L0009735	VOLUME	654806.216	4193969.761	6.97
LOCATION L0009736	VOLUME	654804.388	4193969.729	6.96
LOCATION L0009737	VOLUME	654802.559	4193969.696	6.96
LOCATION L0009738	VOLUME	654800.731	4193969.663	6.96
LOCATION L0009739	VOLUME	654798.902	4193969.631	6.95
LOCATION L0009740	VOLUME	654797.074	4193969.598	6.95
LOCATION L0009741	VOLUME	654795.245	4193969.565	6.95
LOCATION L0009742	VOLUME	654793.417	4193969.533	6.95
LOCATION L0009743	VOLUME	654791.588	4193969.500	6.95
LOCATION L0009744	VOLUME	654789.760	4193969.467	6.95
LOCATION L0009745	VOLUME	654787.931	4193969.435	6.94
LOCATION L0009746	VOLUME	654786.103	4193969.402	6.94
LOCATION L0009747	VOLUME	654784.274	4193969.369	6.94

LOCATION L0009748	VOLUME	654782.446	4193969.337	6.94
LOCATION L0009749	VOLUME	654780.617	4193969.304	6.94
LOCATION L0009750	VOLUME	654778.789	4193969.271	6.93
LOCATION L0009751	VOLUME	654776.960	4193969.239	6.93
LOCATION L0009752	VOLUME	654775.132	4193969.206	6.93
LOCATION L0009753	VOLUME	654773.303	4193969.173	6.93
LOCATION L0009754	VOLUME	654771.475	4193969.140	6.93
LOCATION L0009755	VOLUME	654769.646	4193969.108	6.92
LOCATION L0009756	VOLUME	654767.818	4193969.075	6.92
LOCATION L0009757	VOLUME	654765.989	4193969.042	6.92
LOCATION L0009758	VOLUME	654764.161	4193969.010	6.92
LOCATION L0009759	VOLUME	654762.332	4193968.977	6.92
LOCATION L0009760	VOLUME	654760.504	4193968.944	6.91
LOCATION L0009761	VOLUME	654758.675	4193968.912	6.91
LOCATION L0009762	VOLUME	654756.847	4193968.879	6.91
LOCATION L0009763	VOLUME	654755.018	4193968.846	6.90
LOCATION L0009764	VOLUME	654753.190	4193968.814	6.90
LOCATION L0009765	VOLUME	654751.361	4193968.781	6.90
LOCATION L0009766	VOLUME	654749.533	4193968.748	6.90
LOCATION L0009767	VOLUME	654747.704	4193968.716	6.89
LOCATION L0009768	VOLUME	654745.876	4193968.683	6.89
LOCATION L0009769	VOLUME	654744.047	4193968.650	6.89
LOCATION L0009770	VOLUME	654742.219	4193968.618	6.89
LOCATION L0009771	VOLUME	654740.390	4193968.585	6.89
LOCATION L0009772	VOLUME	654738.561	4193968.552	6.89
LOCATION L0009773	VOLUME	654736.733	4193968.520	6.88
LOCATION L0009774	VOLUME	654734.904	4193968.487	6.88
LOCATION L0009775	VOLUME	654733.076	4193968.454	6.88
LOCATION L0009776	VOLUME	654731.247	4193968.422	6.88
LOCATION L0009777	VOLUME	654729.419	4193968.389	6.88
LOCATION L0009778	VOLUME	654727.590	4193968.356	6.88
LOCATION L0009779	VOLUME	654725.762	4193968.324	6.88
LOCATION L0009780	VOLUME	654723.933	4193968.291	6.88
LOCATION L0009781	VOLUME	654722.105	4193968.258	6.88
LOCATION L0009782	VOLUME	654720.276	4193968.225	6.87
LOCATION L0009783	VOLUME	654718.448	4193968.193	6.87
LOCATION L0009784	VOLUME	654716.619	4193968.160	6.87
LOCATION L0009785	VOLUME	654714.791	4193968.127	6.87
LOCATION L0009786	VOLUME	654712.962	4193968.095	6.87
LOCATION L0009787	VOLUME	654711.134	4193968.062	6.87
LOCATION L0009788	VOLUME	654709.305	4193968.029	6.87
LOCATION L0009789	VOLUME	654707.477	4193967.997	6.86
LOCATION L0009790	VOLUME	654705.648	4193967.964	6.86
LOCATION L0009791	VOLUME	654703.820	4193967.931	6.86
LOCATION L0009792	VOLUME	654701.991	4193967.899	6.86
LOCATION L0009793	VOLUME	654700.163	4193967.866	6.86
LOCATION L0009794	VOLUME	654698.334	4193967.833	6.86
LOCATION L0009795	VOLUME	654696.506	4193967.801	6.86
LOCATION L0009796	VOLUME	654694.677	4193967.768	6.86
LOCATION L0009797	VOLUME	654692.849	4193967.735	6.85
LOCATION L0009798	VOLUME	654691.020	4193967.703	6.85
LOCATION L0009799	VOLUME	654689.192	4193967.670	6.85
LOCATION L0009800	VOLUME	654687.363	4193967.637	6.85
LOCATION L0009801	VOLUME	654685.535	4193967.605	6.85
LOCATION L0009802	VOLUME	654683.706	4193967.572	6.85

LOCATION L0009803	VOLUME	654681.878	4193967.539	6.85
LOCATION L0009804	VOLUME	654680.049	4193967.507	6.85
LOCATION L0009805	VOLUME	654678.221	4193967.474	6.85
LOCATION L0009806	VOLUME	654676.392	4193967.441	6.85
LOCATION L0009807	VOLUME	654674.564	4193967.408	6.85
LOCATION L0009808	VOLUME	654672.735	4193967.376	6.85
LOCATION L0009809	VOLUME	654670.907	4193967.343	6.84
LOCATION L0009810	VOLUME	654669.078	4193967.310	6.84
LOCATION L0009811	VOLUME	654667.250	4193967.278	6.84
LOCATION L0009812	VOLUME	654665.421	4193967.245	6.84
LOCATION L0009813	VOLUME	654663.593	4193967.212	6.84
LOCATION L0009814	VOLUME	654661.764	4193967.180	6.84
LOCATION L0009815	VOLUME	654659.936	4193967.147	6.84
LOCATION L0009816	VOLUME	654658.107	4193967.114	6.84
LOCATION L0009817	VOLUME	654656.279	4193967.082	6.84
LOCATION L0009818	VOLUME	654654.450	4193967.049	6.84
LOCATION L0009819	VOLUME	654652.622	4193967.016	6.84
LOCATION L0009820	VOLUME	654650.793	4193966.984	6.84
LOCATION L0009821	VOLUME	654648.965	4193966.951	6.84
LOCATION L0009822	VOLUME	654647.136	4193966.918	6.84
LOCATION L0009823	VOLUME	654645.308	4193966.886	6.84
LOCATION L0009824	VOLUME	654643.479	4193966.853	6.84
LOCATION L0009825	VOLUME	654641.651	4193966.820	6.84
LOCATION L0009826	VOLUME	654639.822	4193966.788	6.84
LOCATION L0009827	VOLUME	654637.994	4193966.755	6.84
LOCATION L0009828	VOLUME	654636.165	4193966.722	6.83
LOCATION L0009829	VOLUME	654634.337	4193966.690	6.83
LOCATION L0009830	VOLUME	654632.508	4193966.657	6.83
LOCATION L0009831	VOLUME	654630.680	4193966.624	6.83
LOCATION L0009832	VOLUME	654628.851	4193966.591	6.83
LOCATION L0009833	VOLUME	654627.023	4193966.559	6.83
LOCATION L0009834	VOLUME	654625.194	4193966.526	6.83
LOCATION L0009835	VOLUME	654623.365	4193966.493	6.83
LOCATION L0009836	VOLUME	654621.537	4193966.461	6.83
LOCATION L0009837	VOLUME	654619.708	4193966.428	6.83
LOCATION L0009838	VOLUME	654617.880	4193966.395	6.83
LOCATION L0009839	VOLUME	654616.051	4193966.363	6.83
LOCATION L0009840	VOLUME	654614.223	4193966.330	6.83
LOCATION L0009841	VOLUME	654612.394	4193966.297	6.83
LOCATION L0009842	VOLUME	654610.566	4193966.265	6.83
LOCATION L0009843	VOLUME	654608.737	4193966.232	6.83
LOCATION L0009844	VOLUME	654606.909	4193966.199	6.83
LOCATION L0009845	VOLUME	654605.080	4193966.167	6.83
LOCATION L0009846	VOLUME	654603.252	4193966.134	6.84
LOCATION L0009847	VOLUME	654601.423	4193966.101	6.84
LOCATION L0009848	VOLUME	654599.595	4193966.069	6.84
LOCATION L0009849	VOLUME	654597.766	4193966.036	6.84
LOCATION L0009850	VOLUME	654595.938	4193966.003	6.84
LOCATION L0009851	VOLUME	654594.109	4193965.971	6.84
LOCATION L0009852	VOLUME	654592.281	4193965.938	6.84
LOCATION L0009853	VOLUME	654590.452	4193965.905	6.84
LOCATION L0009854	VOLUME	654588.624	4193965.873	6.84
LOCATION L0009855	VOLUME	654586.795	4193965.840	6.85
LOCATION L0009856	VOLUME	654584.967	4193965.807	6.85
LOCATION L0009857	VOLUME	654583.138	4193965.774	6.85

LOCATION L0009858	VOLUME	654581.310	4193965.742	6.86
LOCATION L0009859	VOLUME	654579.481	4193965.709	6.86
LOCATION L0009860	VOLUME	654577.653	4193965.676	6.87
LOCATION L0009861	VOLUME	654575.824	4193965.644	6.87
LOCATION L0009862	VOLUME	654573.996	4193965.611	6.88
LOCATION L0009863	VOLUME	654572.167	4193965.578	6.88
LOCATION L0009864	VOLUME	654570.339	4193965.546	6.89
LOCATION L0009865	VOLUME	654568.510	4193965.513	6.90
LOCATION L0009866	VOLUME	654566.682	4193965.480	6.91
LOCATION L0009867	VOLUME	654564.853	4193965.448	6.91
LOCATION L0009868	VOLUME	654563.025	4193965.415	6.93
LOCATION L0009869	VOLUME	654561.196	4193965.382	6.94
LOCATION L0009870	VOLUME	654559.368	4193965.350	6.96
LOCATION L0009871	VOLUME	654557.539	4193965.317	6.97
LOCATION L0009872	VOLUME	654555.711	4193965.284	6.99
LOCATION L0009873	VOLUME	654553.882	4193965.252	7.01
LOCATION L0009874	VOLUME	654552.054	4193965.219	7.02
LOCATION L0009875	VOLUME	654550.225	4193965.186	7.04
LOCATION L0009876	VOLUME	654548.397	4193965.154	7.06
LOCATION L0009877	VOLUME	654546.568	4193965.121	7.08
LOCATION L0009878	VOLUME	654544.740	4193965.088	7.10
LOCATION L0009879	VOLUME	654542.911	4193965.056	7.12
LOCATION L0009880	VOLUME	654541.083	4193965.023	7.14
LOCATION L0009881	VOLUME	654539.254	4193964.990	7.17
LOCATION L0009882	VOLUME	654537.426	4193964.957	7.19
LOCATION L0009883	VOLUME	654535.597	4193964.925	7.22
LOCATION L0009884	VOLUME	654533.769	4193964.892	7.24
LOCATION L0009885	VOLUME	654531.940	4193964.859	7.27
LOCATION L0009886	VOLUME	654530.112	4193964.827	7.30
LOCATION L0009887	VOLUME	654528.283	4193964.794	7.32
LOCATION L0009888	VOLUME	654526.455	4193964.761	7.35
LOCATION L0009889	VOLUME	654524.626	4193964.729	7.38
LOCATION L0009890	VOLUME	654522.798	4193964.696	7.41
LOCATION L0009891	VOLUME	654520.969	4193964.663	7.44
LOCATION L0009892	VOLUME	654519.141	4193964.631	7.47
LOCATION L0009893	VOLUME	654517.312	4193964.598	7.50
LOCATION L0009894	VOLUME	654515.484	4193964.565	7.52
LOCATION L0009895	VOLUME	654513.655	4193964.533	7.55
LOCATION L0009896	VOLUME	654511.827	4193964.500	7.58
LOCATION L0009897	VOLUME	654509.998	4193964.467	7.61
LOCATION L0009898	VOLUME	654508.169	4193964.435	7.64
LOCATION L0009899	VOLUME	654506.341	4193964.402	7.67
LOCATION L0009900	VOLUME	654504.512	4193964.369	7.70
LOCATION L0009901	VOLUME	654502.684	4193964.337	7.73
LOCATION L0009902	VOLUME	654500.855	4193964.304	7.76
LOCATION L0009903	VOLUME	654499.027	4193964.271	7.79
LOCATION L0009904	VOLUME	654497.198	4193964.239	7.82
LOCATION L0009905	VOLUME	654495.370	4193964.206	7.84
LOCATION L0009906	VOLUME	654493.541	4193964.173	7.87
LOCATION L0009907	VOLUME	654491.713	4193964.141	7.90
LOCATION L0009908	VOLUME	654489.884	4193964.108	7.92
LOCATION L0009909	VOLUME	654488.056	4193964.075	7.94
LOCATION L0009910	VOLUME	654486.227	4193964.042	7.96
LOCATION L0009911	VOLUME	654484.399	4193964.010	7.98
LOCATION L0009912	VOLUME	654482.570	4193963.977	8.00

LOCATION L0009913	VOLUME	654480.742	4193963.944	8.02
LOCATION L0009914	VOLUME	654478.913	4193963.912	8.04
LOCATION L0009915	VOLUME	654477.085	4193963.879	8.05
LOCATION L0009916	VOLUME	654475.256	4193963.846	8.07
LOCATION L0009917	VOLUME	654473.428	4193963.814	8.09
LOCATION L0009918	VOLUME	654471.599	4193963.781	8.10
LOCATION L0009919	VOLUME	654469.771	4193963.748	8.12
LOCATION L0009920	VOLUME	654467.942	4193963.716	8.13
LOCATION L0009921	VOLUME	654466.114	4193963.683	8.15
LOCATION L0009922	VOLUME	654464.285	4193963.650	8.16
LOCATION L0009923	VOLUME	654462.457	4193963.618	8.17
LOCATION L0009924	VOLUME	654460.628	4193963.585	8.19
LOCATION L0009925	VOLUME	654458.800	4193963.552	8.20
LOCATION L0009926	VOLUME	654456.971	4193963.520	8.21
LOCATION L0009927	VOLUME	654455.143	4193963.487	8.22
LOCATION L0009928	VOLUME	654453.314	4193963.454	8.23
LOCATION L0009929	VOLUME	654451.486	4193963.422	8.24
LOCATION L0009930	VOLUME	654449.657	4193963.389	8.24
LOCATION L0009931	VOLUME	654447.829	4193963.356	8.25
LOCATION L0009932	VOLUME	654446.000	4193963.324	8.26
LOCATION L0009933	VOLUME	654444.172	4193963.291	8.26
LOCATION L0009934	VOLUME	654442.343	4193963.258	8.27
LOCATION L0009935	VOLUME	654440.515	4193963.225	8.27
LOCATION L0009936	VOLUME	654438.686	4193963.193	8.27

** End of LINE VOLUME Source ID = SLINE1

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = SLINE2

** DESCRSRC On-site Mobile (Bldg 1)

** PREFIX

** Length of Side = 1.83

** Configuration = Adjacent

** Emission Rate = 1.0

** Vertical Dimension = 3.66

** SZINIT = 1.70

** Nodes = 2

** 654740.243, 4193971.164, 6.90, 3.66, 0.85

** 654467.150, 4194395.286, 7.53, 3.66, 0.85

** -----

LOCATION L0009937	VOLUME	654739.748	4193971.933	6.89
LOCATION L0009938	VOLUME	654738.758	4193973.470	6.90
LOCATION L0009939	VOLUME	654737.768	4193975.008	6.90
LOCATION L0009940	VOLUME	654736.778	4193976.546	6.90
LOCATION L0009941	VOLUME	654735.788	4193978.083	6.90
LOCATION L0009942	VOLUME	654734.798	4193979.621	6.90
LOCATION L0009943	VOLUME	654733.808	4193981.159	6.91
LOCATION L0009944	VOLUME	654732.817	4193982.696	6.91
LOCATION L0009945	VOLUME	654731.827	4193984.234	6.91
LOCATION L0009946	VOLUME	654730.837	4193985.771	6.91
LOCATION L0009947	VOLUME	654729.847	4193987.309	6.91
LOCATION L0009948	VOLUME	654728.857	4193988.847	6.92
LOCATION L0009949	VOLUME	654727.867	4193990.384	6.92
LOCATION L0009950	VOLUME	654726.877	4193991.922	6.92
LOCATION L0009951	VOLUME	654725.887	4193993.459	6.92
LOCATION L0009952	VOLUME	654724.897	4193994.997	6.92

LOCATION L0009953	VOLUME	654723.907	4193996.535	6.92
LOCATION L0009954	VOLUME	654722.917	4193998.072	6.92
LOCATION L0009955	VOLUME	654721.927	4193999.610	6.92
LOCATION L0009956	VOLUME	654720.937	4194001.148	6.92
LOCATION L0009957	VOLUME	654719.947	4194002.685	6.92
LOCATION L0009958	VOLUME	654718.956	4194004.223	6.92
LOCATION L0009959	VOLUME	654717.966	4194005.760	6.92
LOCATION L0009960	VOLUME	654716.976	4194007.298	6.92
LOCATION L0009961	VOLUME	654715.986	4194008.836	6.93
LOCATION L0009962	VOLUME	654714.996	4194010.373	6.93
LOCATION L0009963	VOLUME	654714.006	4194011.911	6.93
LOCATION L0009964	VOLUME	654713.016	4194013.448	6.94
LOCATION L0009965	VOLUME	654712.026	4194014.986	6.94
LOCATION L0009966	VOLUME	654711.036	4194016.524	6.94
LOCATION L0009967	VOLUME	654710.046	4194018.061	6.95
LOCATION L0009968	VOLUME	654709.056	4194019.599	6.95
LOCATION L0009969	VOLUME	654708.066	4194021.137	6.95
LOCATION L0009970	VOLUME	654707.076	4194022.674	6.95
LOCATION L0009971	VOLUME	654706.085	4194024.212	6.96
LOCATION L0009972	VOLUME	654705.095	4194025.749	6.96
LOCATION L0009973	VOLUME	654704.105	4194027.287	6.96
LOCATION L0009974	VOLUME	654703.115	4194028.825	6.96
LOCATION L0009975	VOLUME	654702.125	4194030.362	6.97
LOCATION L0009976	VOLUME	654701.135	4194031.900	6.97
LOCATION L0009977	VOLUME	654700.145	4194033.437	6.97
LOCATION L0009978	VOLUME	654699.155	4194034.975	6.97
LOCATION L0009979	VOLUME	654698.165	4194036.513	6.98
LOCATION L0009980	VOLUME	654697.175	4194038.050	6.98
LOCATION L0009981	VOLUME	654696.185	4194039.588	6.99
LOCATION L0009982	VOLUME	654695.195	4194041.126	6.99
LOCATION L0009983	VOLUME	654694.205	4194042.663	7.00
LOCATION L0009984	VOLUME	654693.215	4194044.201	7.00
LOCATION L0009985	VOLUME	654692.224	4194045.738	7.01
LOCATION L0009986	VOLUME	654691.234	4194047.276	7.01
LOCATION L0009987	VOLUME	654690.244	4194048.814	7.02
LOCATION L0009988	VOLUME	654689.254	4194050.351	7.02
LOCATION L0009989	VOLUME	654688.264	4194051.889	7.03
LOCATION L0009990	VOLUME	654687.274	4194053.426	7.04
LOCATION L0009991	VOLUME	654686.284	4194054.964	7.04
LOCATION L0009992	VOLUME	654685.294	4194056.502	7.05
LOCATION L0009993	VOLUME	654684.304	4194058.039	7.05
LOCATION L0009994	VOLUME	654683.314	4194059.577	7.06
LOCATION L0009995	VOLUME	654682.324	4194061.115	7.06
LOCATION L0009996	VOLUME	654681.334	4194062.652	7.07
LOCATION L0009997	VOLUME	654680.344	4194064.190	7.08
LOCATION L0009998	VOLUME	654679.353	4194065.727	7.08
LOCATION L0009999	VOLUME	654678.363	4194067.265	7.09
LOCATION L0010000	VOLUME	654677.373	4194068.803	7.09
LOCATION L0010001	VOLUME	654676.383	4194070.340	7.10
LOCATION L0010002	VOLUME	654675.393	4194071.878	7.11
LOCATION L0010003	VOLUME	654674.403	4194073.415	7.12
LOCATION L0010004	VOLUME	654673.413	4194074.953	7.12
LOCATION L0010005	VOLUME	654672.423	4194076.491	7.13
LOCATION L0010006	VOLUME	654671.433	4194078.028	7.14
LOCATION L0010007	VOLUME	654670.443	4194079.566	7.14

LOCATION L0010008	VOLUME	654669.453	4194081.104	7.15
LOCATION L0010009	VOLUME	654668.463	4194082.641	7.15
LOCATION L0010010	VOLUME	654667.473	4194084.179	7.16
LOCATION L0010011	VOLUME	654666.483	4194085.716	7.17
LOCATION L0010012	VOLUME	654665.492	4194087.254	7.17
LOCATION L0010013	VOLUME	654664.502	4194088.792	7.18
LOCATION L0010014	VOLUME	654663.512	4194090.329	7.19
LOCATION L0010015	VOLUME	654662.522	4194091.867	7.19
LOCATION L0010016	VOLUME	654661.532	4194093.404	7.20
LOCATION L0010017	VOLUME	654660.542	4194094.942	7.21
LOCATION L0010018	VOLUME	654659.552	4194096.480	7.22
LOCATION L0010019	VOLUME	654658.562	4194098.017	7.23
LOCATION L0010020	VOLUME	654657.572	4194099.555	7.23
LOCATION L0010021	VOLUME	654656.582	4194101.093	7.24
LOCATION L0010022	VOLUME	654655.592	4194102.630	7.25
LOCATION L0010023	VOLUME	654654.602	4194104.168	7.26
LOCATION L0010024	VOLUME	654653.612	4194105.705	7.27
LOCATION L0010025	VOLUME	654652.621	4194107.243	7.28
LOCATION L0010026	VOLUME	654651.631	4194108.781	7.28
LOCATION L0010027	VOLUME	654650.641	4194110.318	7.29
LOCATION L0010028	VOLUME	654649.651	4194111.856	7.30
LOCATION L0010029	VOLUME	654648.661	4194113.393	7.30
LOCATION L0010030	VOLUME	654647.671	4194114.931	7.31
LOCATION L0010031	VOLUME	654646.681	4194116.469	7.32
LOCATION L0010032	VOLUME	654645.691	4194118.006	7.32
LOCATION L0010033	VOLUME	654644.701	4194119.544	7.33
LOCATION L0010034	VOLUME	654643.711	4194121.082	7.34
LOCATION L0010035	VOLUME	654642.721	4194122.619	7.34
LOCATION L0010036	VOLUME	654641.731	4194124.157	7.35
LOCATION L0010037	VOLUME	654640.741	4194125.694	7.36
LOCATION L0010038	VOLUME	654639.750	4194127.232	7.37
LOCATION L0010039	VOLUME	654638.760	4194128.770	7.37
LOCATION L0010040	VOLUME	654637.770	4194130.307	7.38
LOCATION L0010041	VOLUME	654636.780	4194131.845	7.39
LOCATION L0010042	VOLUME	654635.790	4194133.382	7.39
LOCATION L0010043	VOLUME	654634.800	4194134.920	7.40
LOCATION L0010044	VOLUME	654633.810	4194136.458	7.41
LOCATION L0010045	VOLUME	654632.820	4194137.995	7.41
LOCATION L0010046	VOLUME	654631.830	4194139.533	7.42
LOCATION L0010047	VOLUME	654630.840	4194141.071	7.42
LOCATION L0010048	VOLUME	654629.850	4194142.608	7.43
LOCATION L0010049	VOLUME	654628.860	4194144.146	7.44
LOCATION L0010050	VOLUME	654627.870	4194145.683	7.44
LOCATION L0010051	VOLUME	654626.880	4194147.221	7.45
LOCATION L0010052	VOLUME	654625.889	4194148.759	7.46
LOCATION L0010053	VOLUME	654624.899	4194150.296	7.46
LOCATION L0010054	VOLUME	654623.909	4194151.834	7.47
LOCATION L0010055	VOLUME	654622.919	4194153.371	7.47
LOCATION L0010056	VOLUME	654621.929	4194154.909	7.48
LOCATION L0010057	VOLUME	654620.939	4194156.447	7.48
LOCATION L0010058	VOLUME	654619.949	4194157.984	7.48
LOCATION L0010059	VOLUME	654618.959	4194159.522	7.49
LOCATION L0010060	VOLUME	654617.969	4194161.060	7.49
LOCATION L0010061	VOLUME	654616.979	4194162.597	7.50
LOCATION L0010062	VOLUME	654615.989	4194164.135	7.50

LOCATION L0010063	VOLUME	654614.999	4194165.672	7.50
LOCATION L0010064	VOLUME	654614.009	4194167.210	7.51
LOCATION L0010065	VOLUME	654613.018	4194168.748	7.51
LOCATION L0010066	VOLUME	654612.028	4194170.285	7.52
LOCATION L0010067	VOLUME	654611.038	4194171.823	7.52
LOCATION L0010068	VOLUME	654610.048	4194173.360	7.53
LOCATION L0010069	VOLUME	654609.058	4194174.898	7.53
LOCATION L0010070	VOLUME	654608.068	4194176.436	7.54
LOCATION L0010071	VOLUME	654607.078	4194177.973	7.54
LOCATION L0010072	VOLUME	654606.088	4194179.511	7.54
LOCATION L0010073	VOLUME	654605.098	4194181.049	7.55
LOCATION L0010074	VOLUME	654604.108	4194182.586	7.55
LOCATION L0010075	VOLUME	654603.118	4194184.124	7.55
LOCATION L0010076	VOLUME	654602.128	4194185.661	7.56
LOCATION L0010077	VOLUME	654601.138	4194187.199	7.56
LOCATION L0010078	VOLUME	654600.148	4194188.737	7.56
LOCATION L0010079	VOLUME	654599.157	4194190.274	7.57
LOCATION L0010080	VOLUME	654598.167	4194191.812	7.57
LOCATION L0010081	VOLUME	654597.177	4194193.349	7.57
LOCATION L0010082	VOLUME	654596.187	4194194.887	7.58
LOCATION L0010083	VOLUME	654595.197	4194196.425	7.58
LOCATION L0010084	VOLUME	654594.207	4194197.962	7.58
LOCATION L0010085	VOLUME	654593.217	4194199.500	7.59
LOCATION L0010086	VOLUME	654592.227	4194201.038	7.59
LOCATION L0010087	VOLUME	654591.237	4194202.575	7.59
LOCATION L0010088	VOLUME	654590.247	4194204.113	7.59
LOCATION L0010089	VOLUME	654589.257	4194205.650	7.60
LOCATION L0010090	VOLUME	654588.267	4194207.188	7.60
LOCATION L0010091	VOLUME	654587.277	4194208.726	7.60
LOCATION L0010092	VOLUME	654586.286	4194210.263	7.60
LOCATION L0010093	VOLUME	654585.296	4194211.801	7.61
LOCATION L0010094	VOLUME	654584.306	4194213.338	7.61
LOCATION L0010095	VOLUME	654583.316	4194214.876	7.61
LOCATION L0010096	VOLUME	654582.326	4194216.414	7.61
LOCATION L0010097	VOLUME	654581.336	4194217.951	7.61
LOCATION L0010098	VOLUME	654580.346	4194219.489	7.61
LOCATION L0010099	VOLUME	654579.356	4194221.027	7.61
LOCATION L0010100	VOLUME	654578.366	4194222.564	7.61
LOCATION L0010101	VOLUME	654577.376	4194224.102	7.61
LOCATION L0010102	VOLUME	654576.386	4194225.639	7.61
LOCATION L0010103	VOLUME	654575.396	4194227.177	7.61
LOCATION L0010104	VOLUME	654574.406	4194228.715	7.61
LOCATION L0010105	VOLUME	654573.416	4194230.252	7.61
LOCATION L0010106	VOLUME	654572.425	4194231.790	7.61
LOCATION L0010107	VOLUME	654571.435	4194233.327	7.62
LOCATION L0010108	VOLUME	654570.445	4194234.865	7.62
LOCATION L0010109	VOLUME	654569.455	4194236.403	7.62
LOCATION L0010110	VOLUME	654568.465	4194237.940	7.62
LOCATION L0010111	VOLUME	654567.475	4194239.478	7.62
LOCATION L0010112	VOLUME	654566.485	4194241.016	7.62
LOCATION L0010113	VOLUME	654565.495	4194242.553	7.62
LOCATION L0010114	VOLUME	654564.505	4194244.091	7.62
LOCATION L0010115	VOLUME	654563.515	4194245.628	7.62
LOCATION L0010116	VOLUME	654562.525	4194247.166	7.62
LOCATION L0010117	VOLUME	654561.535	4194248.704	7.62

LOCATION L0010118	VOLUME	654560.545	4194250.241	7.62
LOCATION L0010119	VOLUME	654559.554	4194251.779	7.62
LOCATION L0010120	VOLUME	654558.564	4194253.316	7.62
LOCATION L0010121	VOLUME	654557.574	4194254.854	7.61
LOCATION L0010122	VOLUME	654556.584	4194256.392	7.61
LOCATION L0010123	VOLUME	654555.594	4194257.929	7.61
LOCATION L0010124	VOLUME	654554.604	4194259.467	7.61
LOCATION L0010125	VOLUME	654553.614	4194261.005	7.61
LOCATION L0010126	VOLUME	654552.624	4194262.542	7.61
LOCATION L0010127	VOLUME	654551.634	4194264.080	7.61
LOCATION L0010128	VOLUME	654550.644	4194265.617	7.61
LOCATION L0010129	VOLUME	654549.654	4194267.155	7.61
LOCATION L0010130	VOLUME	654548.664	4194268.693	7.61
LOCATION L0010131	VOLUME	654547.674	4194270.230	7.60
LOCATION L0010132	VOLUME	654546.683	4194271.768	7.60
LOCATION L0010133	VOLUME	654545.693	4194273.305	7.60
LOCATION L0010134	VOLUME	654544.703	4194274.843	7.60
LOCATION L0010135	VOLUME	654543.713	4194276.381	7.60
LOCATION L0010136	VOLUME	654542.723	4194277.918	7.60
LOCATION L0010137	VOLUME	654541.733	4194279.456	7.60
LOCATION L0010138	VOLUME	654540.743	4194280.994	7.60
LOCATION L0010139	VOLUME	654539.753	4194282.531	7.60
LOCATION L0010140	VOLUME	654538.763	4194284.069	7.60
LOCATION L0010141	VOLUME	654537.773	4194285.606	7.60
LOCATION L0010142	VOLUME	654536.783	4194287.144	7.59
LOCATION L0010143	VOLUME	654535.793	4194288.682	7.59
LOCATION L0010144	VOLUME	654534.803	4194290.219	7.59
LOCATION L0010145	VOLUME	654533.813	4194291.757	7.59
LOCATION L0010146	VOLUME	654532.822	4194293.294	7.59
LOCATION L0010147	VOLUME	654531.832	4194294.832	7.59
LOCATION L0010148	VOLUME	654530.842	4194296.370	7.59
LOCATION L0010149	VOLUME	654529.852	4194297.907	7.58
LOCATION L0010150	VOLUME	654528.862	4194299.445	7.58
LOCATION L0010151	VOLUME	654527.872	4194300.983	7.58
LOCATION L0010152	VOLUME	654526.882	4194302.520	7.58
LOCATION L0010153	VOLUME	654525.892	4194304.058	7.58
LOCATION L0010154	VOLUME	654524.902	4194305.595	7.57
LOCATION L0010155	VOLUME	654523.912	4194307.133	7.57
LOCATION L0010156	VOLUME	654522.922	4194308.671	7.57
LOCATION L0010157	VOLUME	654521.932	4194310.208	7.56
LOCATION L0010158	VOLUME	654520.942	4194311.746	7.56
LOCATION L0010159	VOLUME	654519.951	4194313.283	7.56
LOCATION L0010160	VOLUME	654518.961	4194314.821	7.56
LOCATION L0010161	VOLUME	654517.971	4194316.359	7.56
LOCATION L0010162	VOLUME	654516.981	4194317.896	7.56
LOCATION L0010163	VOLUME	654515.991	4194319.434	7.56
LOCATION L0010164	VOLUME	654515.001	4194320.972	7.56
LOCATION L0010165	VOLUME	654514.011	4194322.509	7.56
LOCATION L0010166	VOLUME	654513.021	4194324.047	7.55
LOCATION L0010167	VOLUME	654512.031	4194325.584	7.55
LOCATION L0010168	VOLUME	654511.041	4194327.122	7.55
LOCATION L0010169	VOLUME	654510.051	4194328.660	7.55
LOCATION L0010170	VOLUME	654509.061	4194330.197	7.55
LOCATION L0010171	VOLUME	654508.071	4194331.735	7.55
LOCATION L0010172	VOLUME	654507.081	4194333.272	7.55

LOCATION L0010173	VOLUME	654506.090	4194334.810	7.55
LOCATION L0010174	VOLUME	654505.100	4194336.348	7.54
LOCATION L0010175	VOLUME	654504.110	4194337.885	7.54
LOCATION L0010176	VOLUME	654503.120	4194339.423	7.54
LOCATION L0010177	VOLUME	654502.130	4194340.961	7.54
LOCATION L0010178	VOLUME	654501.140	4194342.498	7.54
LOCATION L0010179	VOLUME	654500.150	4194344.036	7.54
LOCATION L0010180	VOLUME	654499.160	4194345.573	7.54
LOCATION L0010181	VOLUME	654498.170	4194347.111	7.54
LOCATION L0010182	VOLUME	654497.180	4194348.649	7.53
LOCATION L0010183	VOLUME	654496.190	4194350.186	7.53
LOCATION L0010184	VOLUME	654495.200	4194351.724	7.53
LOCATION L0010185	VOLUME	654494.210	4194353.261	7.53
LOCATION L0010186	VOLUME	654493.219	4194354.799	7.53
LOCATION L0010187	VOLUME	654492.229	4194356.337	7.53
LOCATION L0010188	VOLUME	654491.239	4194357.874	7.53
LOCATION L0010189	VOLUME	654490.249	4194359.412	7.53
LOCATION L0010190	VOLUME	654489.259	4194360.950	7.53
LOCATION L0010191	VOLUME	654488.269	4194362.487	7.53
LOCATION L0010192	VOLUME	654487.279	4194364.025	7.53
LOCATION L0010193	VOLUME	654486.289	4194365.562	7.53
LOCATION L0010194	VOLUME	654485.299	4194367.100	7.52
LOCATION L0010195	VOLUME	654484.309	4194368.638	7.52
LOCATION L0010196	VOLUME	654483.319	4194370.175	7.52
LOCATION L0010197	VOLUME	654482.329	4194371.713	7.52
LOCATION L0010198	VOLUME	654481.339	4194373.250	7.52
LOCATION L0010199	VOLUME	654480.349	4194374.788	7.52
LOCATION L0010200	VOLUME	654479.358	4194376.326	7.53
LOCATION L0010201	VOLUME	654478.368	4194377.863	7.53
LOCATION L0010202	VOLUME	654477.378	4194379.401	7.53
LOCATION L0010203	VOLUME	654476.388	4194380.939	7.53
LOCATION L0010204	VOLUME	654475.398	4194382.476	7.53
LOCATION L0010205	VOLUME	654474.408	4194384.014	7.53
LOCATION L0010206	VOLUME	654473.418	4194385.551	7.53
LOCATION L0010207	VOLUME	654472.428	4194387.089	7.53
LOCATION L0010208	VOLUME	654471.438	4194388.627	7.53
LOCATION L0010209	VOLUME	654470.448	4194390.164	7.53
LOCATION L0010210	VOLUME	654469.458	4194391.702	7.53
LOCATION L0010211	VOLUME	654468.468	4194393.240	7.53
LOCATION L0010212	VOLUME	654467.478	4194394.777	7.53

** End of LINE VOLUME Source ID = SLINE2

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = SLINE3

** DESCRSRC On-site Mobile (Bldg 2)

** PREFIX

** Length of Side = 1.83

** Configuration = Adjacent

** Emission Rate = 1.0

** Vertical Dimension = 3.66

** SZINIT = 1.70

** Nodes = 2

** 655094.022, 4193975.301, 7.31, 3.66, 0.85

** 654773.343, 4194504.938, 7.72, 3.66, 0.85

** -----

LOCATION L0010213	VOLUME	655093.548	4193976.083	7.31
LOCATION L0010214	VOLUME	655092.601	4193977.648	7.32
LOCATION L0010215	VOLUME	655091.654	4193979.212	7.32
LOCATION L0010216	VOLUME	655090.707	4193980.777	7.32
LOCATION L0010217	VOLUME	655089.759	4193982.341	7.32
LOCATION L0010218	VOLUME	655088.812	4193983.905	7.32
LOCATION L0010219	VOLUME	655087.865	4193985.470	7.32
LOCATION L0010220	VOLUME	655086.918	4193987.034	7.33
LOCATION L0010221	VOLUME	655085.971	4193988.599	7.33
LOCATION L0010222	VOLUME	655085.023	4193990.163	7.33
LOCATION L0010223	VOLUME	655084.076	4193991.727	7.33
LOCATION L0010224	VOLUME	655083.129	4193993.292	7.33
LOCATION L0010225	VOLUME	655082.182	4193994.856	7.34
LOCATION L0010226	VOLUME	655081.235	4193996.421	7.34
LOCATION L0010227	VOLUME	655080.287	4193997.985	7.34
LOCATION L0010228	VOLUME	655079.340	4193999.549	7.34
LOCATION L0010229	VOLUME	655078.393	4194001.114	7.34
LOCATION L0010230	VOLUME	655077.446	4194002.678	7.34
LOCATION L0010231	VOLUME	655076.499	4194004.243	7.34
LOCATION L0010232	VOLUME	655075.551	4194005.807	7.34
LOCATION L0010233	VOLUME	655074.604	4194007.371	7.34
LOCATION L0010234	VOLUME	655073.657	4194008.936	7.34
LOCATION L0010235	VOLUME	655072.710	4194010.500	7.34
LOCATION L0010236	VOLUME	655071.763	4194012.065	7.34
LOCATION L0010237	VOLUME	655070.816	4194013.629	7.35
LOCATION L0010238	VOLUME	655069.868	4194015.193	7.35
LOCATION L0010239	VOLUME	655068.921	4194016.758	7.35
LOCATION L0010240	VOLUME	655067.974	4194018.322	7.35
LOCATION L0010241	VOLUME	655067.027	4194019.887	7.36
LOCATION L0010242	VOLUME	655066.080	4194021.451	7.36
LOCATION L0010243	VOLUME	655065.132	4194023.015	7.36
LOCATION L0010244	VOLUME	655064.185	4194024.580	7.36
LOCATION L0010245	VOLUME	655063.238	4194026.144	7.36
LOCATION L0010246	VOLUME	655062.291	4194027.709	7.36
LOCATION L0010247	VOLUME	655061.344	4194029.273	7.36
LOCATION L0010248	VOLUME	655060.396	4194030.837	7.36
LOCATION L0010249	VOLUME	655059.449	4194032.402	7.36
LOCATION L0010250	VOLUME	655058.502	4194033.966	7.36
LOCATION L0010251	VOLUME	655057.555	4194035.530	7.36
LOCATION L0010252	VOLUME	655056.608	4194037.095	7.37
LOCATION L0010253	VOLUME	655055.660	4194038.659	7.37
LOCATION L0010254	VOLUME	655054.713	4194040.224	7.37
LOCATION L0010255	VOLUME	655053.766	4194041.788	7.37
LOCATION L0010256	VOLUME	655052.819	4194043.352	7.38
LOCATION L0010257	VOLUME	655051.872	4194044.917	7.38
LOCATION L0010258	VOLUME	655050.924	4194046.481	7.38
LOCATION L0010259	VOLUME	655049.977	4194048.046	7.38
LOCATION L0010260	VOLUME	655049.030	4194049.610	7.38
LOCATION L0010261	VOLUME	655048.083	4194051.174	7.38
LOCATION L0010262	VOLUME	655047.136	4194052.739	7.39
LOCATION L0010263	VOLUME	655046.188	4194054.303	7.39
LOCATION L0010264	VOLUME	655045.241	4194055.868	7.39
LOCATION L0010265	VOLUME	655044.294	4194057.432	7.39
LOCATION L0010266	VOLUME	655043.347	4194058.996	7.39
LOCATION L0010267	VOLUME	655042.400	4194060.561	7.39

LOCATION L0010268	VOLUME	655041.453	4194062.125	7.39
LOCATION L0010269	VOLUME	655040.505	4194063.690	7.39
LOCATION L0010270	VOLUME	655039.558	4194065.254	7.39
LOCATION L0010271	VOLUME	655038.611	4194066.818	7.39
LOCATION L0010272	VOLUME	655037.664	4194068.383	7.39
LOCATION L0010273	VOLUME	655036.717	4194069.947	7.40
LOCATION L0010274	VOLUME	655035.769	4194071.512	7.40
LOCATION L0010275	VOLUME	655034.822	4194073.076	7.40
LOCATION L0010276	VOLUME	655033.875	4194074.640	7.40
LOCATION L0010277	VOLUME	655032.928	4194076.205	7.40
LOCATION L0010278	VOLUME	655031.981	4194077.769	7.40
LOCATION L0010279	VOLUME	655031.033	4194079.334	7.40
LOCATION L0010280	VOLUME	655030.086	4194080.898	7.40
LOCATION L0010281	VOLUME	655029.139	4194082.462	7.41
LOCATION L0010282	VOLUME	655028.192	4194084.027	7.41
LOCATION L0010283	VOLUME	655027.245	4194085.591	7.41
LOCATION L0010284	VOLUME	655026.297	4194087.156	7.41
LOCATION L0010285	VOLUME	655025.350	4194088.720	7.41
LOCATION L0010286	VOLUME	655024.403	4194090.284	7.41
LOCATION L0010287	VOLUME	655023.456	4194091.849	7.42
LOCATION L0010288	VOLUME	655022.509	4194093.413	7.42
LOCATION L0010289	VOLUME	655021.561	4194094.978	7.42
LOCATION L0010290	VOLUME	655020.614	4194096.542	7.42
LOCATION L0010291	VOLUME	655019.667	4194098.106	7.42
LOCATION L0010292	VOLUME	655018.720	4194099.671	7.42
LOCATION L0010293	VOLUME	655017.773	4194101.235	7.42
LOCATION L0010294	VOLUME	655016.826	4194102.800	7.42
LOCATION L0010295	VOLUME	655015.878	4194104.364	7.42
LOCATION L0010296	VOLUME	655014.931	4194105.928	7.42
LOCATION L0010297	VOLUME	655013.984	4194107.493	7.43
LOCATION L0010298	VOLUME	655013.037	4194109.057	7.43
LOCATION L0010299	VOLUME	655012.090	4194110.621	7.43
LOCATION L0010300	VOLUME	655011.142	4194112.186	7.43
LOCATION L0010301	VOLUME	655010.195	4194113.750	7.43
LOCATION L0010302	VOLUME	655009.248	4194115.315	7.43
LOCATION L0010303	VOLUME	655008.301	4194116.879	7.43
LOCATION L0010304	VOLUME	655007.354	4194118.443	7.43
LOCATION L0010305	VOLUME	655006.406	4194120.008	7.43
LOCATION L0010306	VOLUME	655005.459	4194121.572	7.43
LOCATION L0010307	VOLUME	655004.512	4194123.137	7.43
LOCATION L0010308	VOLUME	655003.565	4194124.701	7.43
LOCATION L0010309	VOLUME	655002.618	4194126.265	7.43
LOCATION L0010310	VOLUME	655001.670	4194127.830	7.43
LOCATION L0010311	VOLUME	655000.723	4194129.394	7.43
LOCATION L0010312	VOLUME	654999.776	4194130.959	7.43
LOCATION L0010313	VOLUME	654998.829	4194132.523	7.43
LOCATION L0010314	VOLUME	654997.882	4194134.087	7.43
LOCATION L0010315	VOLUME	654996.934	4194135.652	7.43
LOCATION L0010316	VOLUME	654995.987	4194137.216	7.43
LOCATION L0010317	VOLUME	654995.040	4194138.781	7.43
LOCATION L0010318	VOLUME	654994.093	4194140.345	7.43
LOCATION L0010319	VOLUME	654993.146	4194141.909	7.44
LOCATION L0010320	VOLUME	654992.198	4194143.474	7.44
LOCATION L0010321	VOLUME	654991.251	4194145.038	7.44
LOCATION L0010322	VOLUME	654990.304	4194146.603	7.44

LOCATION L0010323	VOLUME	654989.357	4194148.167	7.44
LOCATION L0010324	VOLUME	654988.410	4194149.731	7.44
LOCATION L0010325	VOLUME	654987.463	4194151.296	7.44
LOCATION L0010326	VOLUME	654986.515	4194152.860	7.44
LOCATION L0010327	VOLUME	654985.568	4194154.425	7.44
LOCATION L0010328	VOLUME	654984.621	4194155.989	7.45
LOCATION L0010329	VOLUME	654983.674	4194157.553	7.45
LOCATION L0010330	VOLUME	654982.727	4194159.118	7.45
LOCATION L0010331	VOLUME	654981.779	4194160.682	7.44
LOCATION L0010332	VOLUME	654980.832	4194162.247	7.44
LOCATION L0010333	VOLUME	654979.885	4194163.811	7.44
LOCATION L0010334	VOLUME	654978.938	4194165.375	7.44
LOCATION L0010335	VOLUME	654977.991	4194166.940	7.44
LOCATION L0010336	VOLUME	654977.043	4194168.504	7.44
LOCATION L0010337	VOLUME	654976.096	4194170.069	7.44
LOCATION L0010338	VOLUME	654975.149	4194171.633	7.44
LOCATION L0010339	VOLUME	654974.202	4194173.197	7.44
LOCATION L0010340	VOLUME	654973.255	4194174.762	7.44
LOCATION L0010341	VOLUME	654972.307	4194176.326	7.45
LOCATION L0010342	VOLUME	654971.360	4194177.891	7.45
LOCATION L0010343	VOLUME	654970.413	4194179.455	7.45
LOCATION L0010344	VOLUME	654969.466	4194181.019	7.45
LOCATION L0010345	VOLUME	654968.519	4194182.584	7.45
LOCATION L0010346	VOLUME	654967.571	4194184.148	7.45
LOCATION L0010347	VOLUME	654966.624	4194185.713	7.45
LOCATION L0010348	VOLUME	654965.677	4194187.277	7.45
LOCATION L0010349	VOLUME	654964.730	4194188.841	7.45
LOCATION L0010350	VOLUME	654963.783	4194190.406	7.45
LOCATION L0010351	VOLUME	654962.836	4194191.970	7.45
LOCATION L0010352	VOLUME	654961.888	4194193.534	7.45
LOCATION L0010353	VOLUME	654960.941	4194195.099	7.45
LOCATION L0010354	VOLUME	654959.994	4194196.663	7.45
LOCATION L0010355	VOLUME	654959.047	4194198.228	7.46
LOCATION L0010356	VOLUME	654958.100	4194199.792	7.46
LOCATION L0010357	VOLUME	654957.152	4194201.356	7.46
LOCATION L0010358	VOLUME	654956.205	4194202.921	7.46
LOCATION L0010359	VOLUME	654955.258	4194204.485	7.46
LOCATION L0010360	VOLUME	654954.311	4194206.050	7.47
LOCATION L0010361	VOLUME	654953.364	4194207.614	7.47
LOCATION L0010362	VOLUME	654952.416	4194209.178	7.47
LOCATION L0010363	VOLUME	654951.469	4194210.743	7.47
LOCATION L0010364	VOLUME	654950.522	4194212.307	7.47
LOCATION L0010365	VOLUME	654949.575	4194213.872	7.47
LOCATION L0010366	VOLUME	654948.628	4194215.436	7.47
LOCATION L0010367	VOLUME	654947.680	4194217.000	7.47
LOCATION L0010368	VOLUME	654946.733	4194218.565	7.47
LOCATION L0010369	VOLUME	654945.786	4194220.129	7.47
LOCATION L0010370	VOLUME	654944.839	4194221.694	7.47
LOCATION L0010371	VOLUME	654943.892	4194223.258	7.47
LOCATION L0010372	VOLUME	654942.944	4194224.822	7.47
LOCATION L0010373	VOLUME	654941.997	4194226.387	7.47
LOCATION L0010374	VOLUME	654941.050	4194227.951	7.47
LOCATION L0010375	VOLUME	654940.103	4194229.516	7.48
LOCATION L0010376	VOLUME	654939.156	4194231.080	7.48
LOCATION L0010377	VOLUME	654938.208	4194232.644	7.48

LOCATION L0010378	VOLUME	654937.261	4194234.209	7.48
LOCATION L0010379	VOLUME	654936.314	4194235.773	7.48
LOCATION L0010380	VOLUME	654935.367	4194237.338	7.49
LOCATION L0010381	VOLUME	654934.420	4194238.902	7.49
LOCATION L0010382	VOLUME	654933.473	4194240.466	7.49
LOCATION L0010383	VOLUME	654932.525	4194242.031	7.49
LOCATION L0010384	VOLUME	654931.578	4194243.595	7.49
LOCATION L0010385	VOLUME	654930.631	4194245.160	7.49
LOCATION L0010386	VOLUME	654929.684	4194246.724	7.50
LOCATION L0010387	VOLUME	654928.737	4194248.288	7.50
LOCATION L0010388	VOLUME	654927.789	4194249.853	7.50
LOCATION L0010389	VOLUME	654926.842	4194251.417	7.50
LOCATION L0010390	VOLUME	654925.895	4194252.982	7.50
LOCATION L0010391	VOLUME	654924.948	4194254.546	7.50
LOCATION L0010392	VOLUME	654924.001	4194256.110	7.51
LOCATION L0010393	VOLUME	654923.053	4194257.675	7.51
LOCATION L0010394	VOLUME	654922.106	4194259.239	7.51
LOCATION L0010395	VOLUME	654921.159	4194260.804	7.51
LOCATION L0010396	VOLUME	654920.212	4194262.368	7.52
LOCATION L0010397	VOLUME	654919.265	4194263.932	7.52
LOCATION L0010398	VOLUME	654918.317	4194265.497	7.52
LOCATION L0010399	VOLUME	654917.370	4194267.061	7.52
LOCATION L0010400	VOLUME	654916.423	4194268.625	7.52
LOCATION L0010401	VOLUME	654915.476	4194270.190	7.53
LOCATION L0010402	VOLUME	654914.529	4194271.754	7.53
LOCATION L0010403	VOLUME	654913.581	4194273.319	7.53
LOCATION L0010404	VOLUME	654912.634	4194274.883	7.53
LOCATION L0010405	VOLUME	654911.687	4194276.447	7.53
LOCATION L0010406	VOLUME	654910.740	4194278.012	7.53
LOCATION L0010407	VOLUME	654909.793	4194279.576	7.53
LOCATION L0010408	VOLUME	654908.846	4194281.141	7.54
LOCATION L0010409	VOLUME	654907.898	4194282.705	7.54
LOCATION L0010410	VOLUME	654906.951	4194284.269	7.54
LOCATION L0010411	VOLUME	654906.004	4194285.834	7.54
LOCATION L0010412	VOLUME	654905.057	4194287.398	7.54
LOCATION L0010413	VOLUME	654904.110	4194288.963	7.54
LOCATION L0010414	VOLUME	654903.162	4194290.527	7.55
LOCATION L0010415	VOLUME	654902.215	4194292.091	7.55
LOCATION L0010416	VOLUME	654901.268	4194293.656	7.55
LOCATION L0010417	VOLUME	654900.321	4194295.220	7.55
LOCATION L0010418	VOLUME	654899.374	4194296.785	7.56
LOCATION L0010419	VOLUME	654898.426	4194298.349	7.56
LOCATION L0010420	VOLUME	654897.479	4194299.913	7.56
LOCATION L0010421	VOLUME	654896.532	4194301.478	7.56
LOCATION L0010422	VOLUME	654895.585	4194303.042	7.57
LOCATION L0010423	VOLUME	654894.638	4194304.607	7.57
LOCATION L0010424	VOLUME	654893.690	4194306.171	7.57
LOCATION L0010425	VOLUME	654892.743	4194307.735	7.57
LOCATION L0010426	VOLUME	654891.796	4194309.300	7.57
LOCATION L0010427	VOLUME	654890.849	4194310.864	7.58
LOCATION L0010428	VOLUME	654889.902	4194312.429	7.58
LOCATION L0010429	VOLUME	654888.954	4194313.993	7.58
LOCATION L0010430	VOLUME	654888.007	4194315.557	7.58
LOCATION L0010431	VOLUME	654887.060	4194317.122	7.58
LOCATION L0010432	VOLUME	654886.113	4194318.686	7.58

LOCATION L0010433	VOLUME	654885.166	4194320.251	7.58
LOCATION L0010434	VOLUME	654884.219	4194321.815	7.59
LOCATION L0010435	VOLUME	654883.271	4194323.379	7.59
LOCATION L0010436	VOLUME	654882.324	4194324.944	7.59
LOCATION L0010437	VOLUME	654881.377	4194326.508	7.59
LOCATION L0010438	VOLUME	654880.430	4194328.073	7.59
LOCATION L0010439	VOLUME	654879.483	4194329.637	7.60
LOCATION L0010440	VOLUME	654878.535	4194331.201	7.60
LOCATION L0010441	VOLUME	654877.588	4194332.766	7.60
LOCATION L0010442	VOLUME	654876.641	4194334.330	7.60
LOCATION L0010443	VOLUME	654875.694	4194335.895	7.60
LOCATION L0010444	VOLUME	654874.747	4194337.459	7.61
LOCATION L0010445	VOLUME	654873.799	4194339.023	7.61
LOCATION L0010446	VOLUME	654872.852	4194340.588	7.61
LOCATION L0010447	VOLUME	654871.905	4194342.152	7.61
LOCATION L0010448	VOLUME	654870.958	4194343.717	7.61
LOCATION L0010449	VOLUME	654870.011	4194345.281	7.62
LOCATION L0010450	VOLUME	654869.063	4194346.845	7.62
LOCATION L0010451	VOLUME	654868.116	4194348.410	7.62
LOCATION L0010452	VOLUME	654867.169	4194349.974	7.62
LOCATION L0010453	VOLUME	654866.222	4194351.538	7.62
LOCATION L0010454	VOLUME	654865.275	4194353.103	7.62
LOCATION L0010455	VOLUME	654864.327	4194354.667	7.63
LOCATION L0010456	VOLUME	654863.380	4194356.232	7.63
LOCATION L0010457	VOLUME	654862.433	4194357.796	7.63
LOCATION L0010458	VOLUME	654861.486	4194359.360	7.63
LOCATION L0010459	VOLUME	654860.539	4194360.925	7.63
LOCATION L0010460	VOLUME	654859.591	4194362.489	7.63
LOCATION L0010461	VOLUME	654858.644	4194364.054	7.64
LOCATION L0010462	VOLUME	654857.697	4194365.618	7.64
LOCATION L0010463	VOLUME	654856.750	4194367.182	7.64
LOCATION L0010464	VOLUME	654855.803	4194368.747	7.64
LOCATION L0010465	VOLUME	654854.856	4194370.311	7.64
LOCATION L0010466	VOLUME	654853.908	4194371.876	7.64
LOCATION L0010467	VOLUME	654852.961	4194373.440	7.64
LOCATION L0010468	VOLUME	654852.014	4194375.004	7.64
LOCATION L0010469	VOLUME	654851.067	4194376.569	7.65
LOCATION L0010470	VOLUME	654850.120	4194378.133	7.65
LOCATION L0010471	VOLUME	654849.172	4194379.698	7.65
LOCATION L0010472	VOLUME	654848.225	4194381.262	7.65
LOCATION L0010473	VOLUME	654847.278	4194382.826	7.65
LOCATION L0010474	VOLUME	654846.331	4194384.391	7.65
LOCATION L0010475	VOLUME	654845.384	4194385.955	7.65
LOCATION L0010476	VOLUME	654844.436	4194387.520	7.65
LOCATION L0010477	VOLUME	654843.489	4194389.084	7.65
LOCATION L0010478	VOLUME	654842.542	4194390.648	7.65
LOCATION L0010479	VOLUME	654841.595	4194392.213	7.65
LOCATION L0010480	VOLUME	654840.648	4194393.777	7.65
LOCATION L0010481	VOLUME	654839.700	4194395.342	7.66
LOCATION L0010482	VOLUME	654838.753	4194396.906	7.66
LOCATION L0010483	VOLUME	654837.806	4194398.470	7.66
LOCATION L0010484	VOLUME	654836.859	4194400.035	7.66
LOCATION L0010485	VOLUME	654835.912	4194401.599	7.66
LOCATION L0010486	VOLUME	654834.964	4194403.164	7.66
LOCATION L0010487	VOLUME	654834.017	4194404.728	7.66

LOCATION L0010488	VOLUME	654833.070	4194406.292	7.67
LOCATION L0010489	VOLUME	654832.123	4194407.857	7.67
LOCATION L0010490	VOLUME	654831.176	4194409.421	7.67
LOCATION L0010491	VOLUME	654830.229	4194410.986	7.67
LOCATION L0010492	VOLUME	654829.281	4194412.550	7.67
LOCATION L0010493	VOLUME	654828.334	4194414.114	7.67
LOCATION L0010494	VOLUME	654827.387	4194415.679	7.67
LOCATION L0010495	VOLUME	654826.440	4194417.243	7.67
LOCATION L0010496	VOLUME	654825.493	4194418.808	7.67
LOCATION L0010497	VOLUME	654824.545	4194420.372	7.67
LOCATION L0010498	VOLUME	654823.598	4194421.936	7.67
LOCATION L0010499	VOLUME	654822.651	4194423.501	7.67
LOCATION L0010500	VOLUME	654821.704	4194425.065	7.67
LOCATION L0010501	VOLUME	654820.757	4194426.629	7.67
LOCATION L0010502	VOLUME	654819.809	4194428.194	7.67
LOCATION L0010503	VOLUME	654818.862	4194429.758	7.67
LOCATION L0010504	VOLUME	654817.915	4194431.323	7.67
LOCATION L0010505	VOLUME	654816.968	4194432.887	7.67
LOCATION L0010506	VOLUME	654816.021	4194434.451	7.68
LOCATION L0010507	VOLUME	654815.073	4194436.016	7.68
LOCATION L0010508	VOLUME	654814.126	4194437.580	7.68
LOCATION L0010509	VOLUME	654813.179	4194439.145	7.68
LOCATION L0010510	VOLUME	654812.232	4194440.709	7.68
LOCATION L0010511	VOLUME	654811.285	4194442.273	7.68
LOCATION L0010512	VOLUME	654810.337	4194443.838	7.68
LOCATION L0010513	VOLUME	654809.390	4194445.402	7.68
LOCATION L0010514	VOLUME	654808.443	4194446.967	7.68
LOCATION L0010515	VOLUME	654807.496	4194448.531	7.68
LOCATION L0010516	VOLUME	654806.549	4194450.095	7.68
LOCATION L0010517	VOLUME	654805.601	4194451.660	7.68
LOCATION L0010518	VOLUME	654804.654	4194453.224	7.68
LOCATION L0010519	VOLUME	654803.707	4194454.789	7.68
LOCATION L0010520	VOLUME	654802.760	4194456.353	7.69
LOCATION L0010521	VOLUME	654801.813	4194457.917	7.69
LOCATION L0010522	VOLUME	654800.866	4194459.482	7.69
LOCATION L0010523	VOLUME	654799.918	4194461.046	7.69
LOCATION L0010524	VOLUME	654798.971	4194462.611	7.69
LOCATION L0010525	VOLUME	654798.024	4194464.175	7.69
LOCATION L0010526	VOLUME	654797.077	4194465.739	7.69
LOCATION L0010527	VOLUME	654796.130	4194467.304	7.69
LOCATION L0010528	VOLUME	654795.182	4194468.868	7.70
LOCATION L0010529	VOLUME	654794.235	4194470.433	7.70
LOCATION L0010530	VOLUME	654793.288	4194471.997	7.70
LOCATION L0010531	VOLUME	654792.341	4194473.561	7.70
LOCATION L0010532	VOLUME	654791.394	4194475.126	7.70
LOCATION L0010533	VOLUME	654790.446	4194476.690	7.70
LOCATION L0010534	VOLUME	654789.499	4194478.255	7.71
LOCATION L0010535	VOLUME	654788.552	4194479.819	7.71
LOCATION L0010536	VOLUME	654787.605	4194481.383	7.71
LOCATION L0010537	VOLUME	654786.658	4194482.948	7.71
LOCATION L0010538	VOLUME	654785.710	4194484.512	7.71
LOCATION L0010539	VOLUME	654784.763	4194486.077	7.72
LOCATION L0010540	VOLUME	654783.816	4194487.641	7.72
LOCATION L0010541	VOLUME	654782.869	4194489.205	7.72
LOCATION L0010542	VOLUME	654781.922	4194490.770	7.72

LOCATION L0010543	VOLUME	654780.974	4194492.334	7.72
LOCATION L0010544	VOLUME	654780.027	4194493.899	7.72
LOCATION L0010545	VOLUME	654779.080	4194495.463	7.72
LOCATION L0010546	VOLUME	654778.133	4194497.027	7.72
LOCATION L0010547	VOLUME	654777.186	4194498.592	7.72
LOCATION L0010548	VOLUME	654776.239	4194500.156	7.73
LOCATION L0010549	VOLUME	654775.291	4194501.721	7.73
LOCATION L0010550	VOLUME	654774.344	4194503.285	7.73
LOCATION L0010551	VOLUME	654773.397	4194504.849	7.73

** End of LINE VOLUME Source ID = SLINE3

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = SLINE4

** DESCRSRC On-site Mobile (Bldg 3)

** PREFIX

** Length of Side = 1.83

** Configuration = Adjacent

** Emission Rate = 1.0

** Vertical Dimension = 3.66

** SZINIT = 1.70

** Nodes = 2

** 655418.838, 4193985.646, 7.94, 3.66, 0.85

** 655056.782, 4194608.383, 7.94, 3.66, 0.85

** -----

LOCATION L0010552	VOLUME	655418.379	4193986.436	7.95
LOCATION L0010553	VOLUME	655417.459	4193988.017	7.95
LOCATION L0010554	VOLUME	655416.540	4193989.598	7.94
LOCATION L0010555	VOLUME	655415.621	4193991.179	7.94
LOCATION L0010556	VOLUME	655414.702	4193992.760	7.94
LOCATION L0010557	VOLUME	655413.783	4193994.341	7.94
LOCATION L0010558	VOLUME	655412.863	4193995.922	7.94
LOCATION L0010559	VOLUME	655411.944	4193997.503	7.94
LOCATION L0010560	VOLUME	655411.025	4193999.084	7.94
LOCATION L0010561	VOLUME	655410.106	4194000.665	7.94
LOCATION L0010562	VOLUME	655409.187	4194002.246	7.94
LOCATION L0010563	VOLUME	655408.268	4194003.827	7.94
LOCATION L0010564	VOLUME	655407.348	4194005.408	7.94
LOCATION L0010565	VOLUME	655406.429	4194006.989	7.94
LOCATION L0010566	VOLUME	655405.510	4194008.570	7.94
LOCATION L0010567	VOLUME	655404.591	4194010.151	7.95
LOCATION L0010568	VOLUME	655403.672	4194011.732	7.95
LOCATION L0010569	VOLUME	655402.752	4194013.313	7.95
LOCATION L0010570	VOLUME	655401.833	4194014.894	7.95
LOCATION L0010571	VOLUME	655400.914	4194016.475	7.95
LOCATION L0010572	VOLUME	655399.995	4194018.056	7.95
LOCATION L0010573	VOLUME	655399.076	4194019.637	7.95
LOCATION L0010574	VOLUME	655398.156	4194021.218	7.95
LOCATION L0010575	VOLUME	655397.237	4194022.799	7.95
LOCATION L0010576	VOLUME	655396.318	4194024.380	7.95
LOCATION L0010577	VOLUME	655395.399	4194025.961	7.95
LOCATION L0010578	VOLUME	655394.480	4194027.542	7.95
LOCATION L0010579	VOLUME	655393.560	4194029.124	7.95
LOCATION L0010580	VOLUME	655392.641	4194030.705	7.95
LOCATION L0010581	VOLUME	655391.722	4194032.286	7.95
LOCATION L0010582	VOLUME	655390.803	4194033.867	7.95

LOCATION L0010583	VOLUME	655389.884	4194035.448	7.95
LOCATION L0010584	VOLUME	655388.964	4194037.029	7.95
LOCATION L0010585	VOLUME	655388.045	4194038.610	7.95
LOCATION L0010586	VOLUME	655387.126	4194040.191	7.95
LOCATION L0010587	VOLUME	655386.207	4194041.772	7.95
LOCATION L0010588	VOLUME	655385.288	4194043.353	7.95
LOCATION L0010589	VOLUME	655384.369	4194044.934	7.94
LOCATION L0010590	VOLUME	655383.449	4194046.515	7.94
LOCATION L0010591	VOLUME	655382.530	4194048.096	7.94
LOCATION L0010592	VOLUME	655381.611	4194049.677	7.94
LOCATION L0010593	VOLUME	655380.692	4194051.258	7.94
LOCATION L0010594	VOLUME	655379.773	4194052.839	7.94
LOCATION L0010595	VOLUME	655378.853	4194054.420	7.94
LOCATION L0010596	VOLUME	655377.934	4194056.001	7.94
LOCATION L0010597	VOLUME	655377.015	4194057.582	7.94
LOCATION L0010598	VOLUME	655376.096	4194059.163	7.94
LOCATION L0010599	VOLUME	655375.177	4194060.744	7.94
LOCATION L0010600	VOLUME	655374.257	4194062.325	7.94
LOCATION L0010601	VOLUME	655373.338	4194063.906	7.94
LOCATION L0010602	VOLUME	655372.419	4194065.487	7.94
LOCATION L0010603	VOLUME	655371.500	4194067.068	7.95
LOCATION L0010604	VOLUME	655370.581	4194068.649	7.95
LOCATION L0010605	VOLUME	655369.661	4194070.230	7.95
LOCATION L0010606	VOLUME	655368.742	4194071.811	7.95
LOCATION L0010607	VOLUME	655367.823	4194073.392	7.95
LOCATION L0010608	VOLUME	655366.904	4194074.973	7.95
LOCATION L0010609	VOLUME	655365.985	4194076.554	7.95
LOCATION L0010610	VOLUME	655365.065	4194078.135	7.95
LOCATION L0010611	VOLUME	655364.146	4194079.716	7.95
LOCATION L0010612	VOLUME	655363.227	4194081.297	7.95
LOCATION L0010613	VOLUME	655362.308	4194082.878	7.95
LOCATION L0010614	VOLUME	655361.389	4194084.459	7.95
LOCATION L0010615	VOLUME	655360.470	4194086.040	7.95
LOCATION L0010616	VOLUME	655359.550	4194087.621	7.95
LOCATION L0010617	VOLUME	655358.631	4194089.202	7.95
LOCATION L0010618	VOLUME	655357.712	4194090.783	7.95
LOCATION L0010619	VOLUME	655356.793	4194092.364	7.95
LOCATION L0010620	VOLUME	655355.874	4194093.945	7.95
LOCATION L0010621	VOLUME	655354.954	4194095.526	7.96
LOCATION L0010622	VOLUME	655354.035	4194097.107	7.96
LOCATION L0010623	VOLUME	655353.116	4194098.688	7.96
LOCATION L0010624	VOLUME	655352.197	4194100.269	7.96
LOCATION L0010625	VOLUME	655351.278	4194101.850	7.96
LOCATION L0010626	VOLUME	655350.358	4194103.431	7.96
LOCATION L0010627	VOLUME	655349.439	4194105.012	7.96
LOCATION L0010628	VOLUME	655348.520	4194106.593	7.96
LOCATION L0010629	VOLUME	655347.601	4194108.174	7.96
LOCATION L0010630	VOLUME	655346.682	4194109.755	7.95
LOCATION L0010631	VOLUME	655345.762	4194111.336	7.95
LOCATION L0010632	VOLUME	655344.843	4194112.917	7.95
LOCATION L0010633	VOLUME	655343.924	4194114.498	7.95
LOCATION L0010634	VOLUME	655343.005	4194116.079	7.96
LOCATION L0010635	VOLUME	655342.086	4194117.660	7.96
LOCATION L0010636	VOLUME	655341.166	4194119.241	7.96
LOCATION L0010637	VOLUME	655340.247	4194120.822	7.96

LOCATION L0010638	VOLUME	655339.328	4194122.403	7.96
LOCATION L0010639	VOLUME	655338.409	4194123.984	7.96
LOCATION L0010640	VOLUME	655337.490	4194125.565	7.96
LOCATION L0010641	VOLUME	655336.571	4194127.146	7.96
LOCATION L0010642	VOLUME	655335.651	4194128.727	7.96
LOCATION L0010643	VOLUME	655334.732	4194130.308	7.96
LOCATION L0010644	VOLUME	655333.813	4194131.889	7.96
LOCATION L0010645	VOLUME	655332.894	4194133.470	7.96
LOCATION L0010646	VOLUME	655331.975	4194135.051	7.96
LOCATION L0010647	VOLUME	655331.055	4194136.632	7.96
LOCATION L0010648	VOLUME	655330.136	4194138.213	7.96
LOCATION L0010649	VOLUME	655329.217	4194139.794	7.96
LOCATION L0010650	VOLUME	655328.298	4194141.375	7.96
LOCATION L0010651	VOLUME	655327.379	4194142.956	7.96
LOCATION L0010652	VOLUME	655326.459	4194144.537	7.96
LOCATION L0010653	VOLUME	655325.540	4194146.118	7.96
LOCATION L0010654	VOLUME	655324.621	4194147.699	7.96
LOCATION L0010655	VOLUME	655323.702	4194149.280	7.96
LOCATION L0010656	VOLUME	655322.783	4194150.861	7.96
LOCATION L0010657	VOLUME	655321.863	4194152.442	7.96
LOCATION L0010658	VOLUME	655320.944	4194154.023	7.96
LOCATION L0010659	VOLUME	655320.025	4194155.604	7.96
LOCATION L0010660	VOLUME	655319.106	4194157.185	7.96
LOCATION L0010661	VOLUME	655318.187	4194158.766	7.96
LOCATION L0010662	VOLUME	655317.267	4194160.347	7.96
LOCATION L0010663	VOLUME	655316.348	4194161.928	7.96
LOCATION L0010664	VOLUME	655315.429	4194163.509	7.96
LOCATION L0010665	VOLUME	655314.510	4194165.090	7.97
LOCATION L0010666	VOLUME	655313.591	4194166.671	7.97
LOCATION L0010667	VOLUME	655312.672	4194168.252	7.97
LOCATION L0010668	VOLUME	655311.752	4194169.833	7.97
LOCATION L0010669	VOLUME	655310.833	4194171.414	7.97
LOCATION L0010670	VOLUME	655309.914	4194172.995	7.97
LOCATION L0010671	VOLUME	655308.995	4194174.576	7.96
LOCATION L0010672	VOLUME	655308.076	4194176.158	7.96
LOCATION L0010673	VOLUME	655307.156	4194177.739	7.96
LOCATION L0010674	VOLUME	655306.237	4194179.320	7.96
LOCATION L0010675	VOLUME	655305.318	4194180.901	7.96
LOCATION L0010676	VOLUME	655304.399	4194182.482	7.96
LOCATION L0010677	VOLUME	655303.480	4194184.063	7.96
LOCATION L0010678	VOLUME	655302.560	4194185.644	7.96
LOCATION L0010679	VOLUME	655301.641	4194187.225	7.96
LOCATION L0010680	VOLUME	655300.722	4194188.806	7.96
LOCATION L0010681	VOLUME	655299.803	4194190.387	7.96
LOCATION L0010682	VOLUME	655298.884	4194191.968	7.96
LOCATION L0010683	VOLUME	655297.964	4194193.549	7.96
LOCATION L0010684	VOLUME	655297.045	4194195.130	7.97
LOCATION L0010685	VOLUME	655296.126	4194196.711	7.97
LOCATION L0010686	VOLUME	655295.207	4194198.292	7.97
LOCATION L0010687	VOLUME	655294.288	4194199.873	7.97
LOCATION L0010688	VOLUME	655293.368	4194201.454	7.97
LOCATION L0010689	VOLUME	655292.449	4194203.035	7.97
LOCATION L0010690	VOLUME	655291.530	4194204.616	7.97
LOCATION L0010691	VOLUME	655290.611	4194206.197	7.97
LOCATION L0010692	VOLUME	655289.692	4194207.778	7.96

LOCATION L0010693	VOLUME	655288.773	4194209.359	7.96
LOCATION L0010694	VOLUME	655287.853	4194210.940	7.96
LOCATION L0010695	VOLUME	655286.934	4194212.521	7.96
LOCATION L0010696	VOLUME	655286.015	4194214.102	7.96
LOCATION L0010697	VOLUME	655285.096	4194215.683	7.96
LOCATION L0010698	VOLUME	655284.177	4194217.264	7.96
LOCATION L0010699	VOLUME	655283.257	4194218.845	7.96
LOCATION L0010700	VOLUME	655282.338	4194220.426	7.96
LOCATION L0010701	VOLUME	655281.419	4194222.007	7.96
LOCATION L0010702	VOLUME	655280.500	4194223.588	7.96
LOCATION L0010703	VOLUME	655279.581	4194225.169	7.96
LOCATION L0010704	VOLUME	655278.661	4194226.750	7.96
LOCATION L0010705	VOLUME	655277.742	4194228.331	7.96
LOCATION L0010706	VOLUME	655276.823	4194229.912	7.96
LOCATION L0010707	VOLUME	655275.904	4194231.493	7.96
LOCATION L0010708	VOLUME	655274.985	4194233.074	7.96
LOCATION L0010709	VOLUME	655274.065	4194234.655	7.96
LOCATION L0010710	VOLUME	655273.146	4194236.236	7.96
LOCATION L0010711	VOLUME	655272.227	4194237.817	7.96
LOCATION L0010712	VOLUME	655271.308	4194239.398	7.96
LOCATION L0010713	VOLUME	655270.389	4194240.979	7.96
LOCATION L0010714	VOLUME	655269.469	4194242.560	7.96
LOCATION L0010715	VOLUME	655268.550	4194244.141	7.96
LOCATION L0010716	VOLUME	655267.631	4194245.722	7.96
LOCATION L0010717	VOLUME	655266.712	4194247.303	7.96
LOCATION L0010718	VOLUME	655265.793	4194248.884	7.96
LOCATION L0010719	VOLUME	655264.874	4194250.465	7.95
LOCATION L0010720	VOLUME	655263.954	4194252.046	7.95
LOCATION L0010721	VOLUME	655263.035	4194253.627	7.95
LOCATION L0010722	VOLUME	655262.116	4194255.208	7.96
LOCATION L0010723	VOLUME	655261.197	4194256.789	7.96
LOCATION L0010724	VOLUME	655260.278	4194258.370	7.96
LOCATION L0010725	VOLUME	655259.358	4194259.951	7.96
LOCATION L0010726	VOLUME	655258.439	4194261.532	7.96
LOCATION L0010727	VOLUME	655257.520	4194263.113	7.96
LOCATION L0010728	VOLUME	655256.601	4194264.694	7.96
LOCATION L0010729	VOLUME	655255.682	4194266.275	7.95
LOCATION L0010730	VOLUME	655254.762	4194267.856	7.95
LOCATION L0010731	VOLUME	655253.843	4194269.437	7.95
LOCATION L0010732	VOLUME	655252.924	4194271.018	7.95
LOCATION L0010733	VOLUME	655252.005	4194272.599	7.94
LOCATION L0010734	VOLUME	655251.086	4194274.180	7.94
LOCATION L0010735	VOLUME	655250.166	4194275.761	7.94
LOCATION L0010736	VOLUME	655249.247	4194277.342	7.94
LOCATION L0010737	VOLUME	655248.328	4194278.923	7.94
LOCATION L0010738	VOLUME	655247.409	4194280.504	7.94
LOCATION L0010739	VOLUME	655246.490	4194282.085	7.94
LOCATION L0010740	VOLUME	655245.570	4194283.666	7.94
LOCATION L0010741	VOLUME	655244.651	4194285.247	7.94
LOCATION L0010742	VOLUME	655243.732	4194286.828	7.94
LOCATION L0010743	VOLUME	655242.813	4194288.409	7.94
LOCATION L0010744	VOLUME	655241.894	4194289.990	7.94
LOCATION L0010745	VOLUME	655240.975	4194291.571	7.94
LOCATION L0010746	VOLUME	655240.055	4194293.152	7.94
LOCATION L0010747	VOLUME	655239.136	4194294.733	7.94

LOCATION L0010748	VOLUME	655238.217	4194296.314	7.94
LOCATION L0010749	VOLUME	655237.298	4194297.895	7.94
LOCATION L0010750	VOLUME	655236.379	4194299.476	7.94
LOCATION L0010751	VOLUME	655235.459	4194301.057	7.94
LOCATION L0010752	VOLUME	655234.540	4194302.638	7.94
LOCATION L0010753	VOLUME	655233.621	4194304.219	7.94
LOCATION L0010754	VOLUME	655232.702	4194305.800	7.93
LOCATION L0010755	VOLUME	655231.783	4194307.381	7.93
LOCATION L0010756	VOLUME	655230.863	4194308.962	7.93
LOCATION L0010757	VOLUME	655229.944	4194310.543	7.93
LOCATION L0010758	VOLUME	655229.025	4194312.124	7.93
LOCATION L0010759	VOLUME	655228.106	4194313.705	7.93
LOCATION L0010760	VOLUME	655227.187	4194315.286	7.93
LOCATION L0010761	VOLUME	655226.267	4194316.867	7.93
LOCATION L0010762	VOLUME	655225.348	4194318.448	7.93
LOCATION L0010763	VOLUME	655224.429	4194320.029	7.93
LOCATION L0010764	VOLUME	655223.510	4194321.610	7.93
LOCATION L0010765	VOLUME	655222.591	4194323.192	7.93
LOCATION L0010766	VOLUME	655221.671	4194324.773	7.93
LOCATION L0010767	VOLUME	655220.752	4194326.354	7.93
LOCATION L0010768	VOLUME	655219.833	4194327.935	7.93
LOCATION L0010769	VOLUME	655218.914	4194329.516	7.93
LOCATION L0010770	VOLUME	655217.995	4194331.097	7.93
LOCATION L0010771	VOLUME	655217.076	4194332.678	7.93
LOCATION L0010772	VOLUME	655216.156	4194334.259	7.93
LOCATION L0010773	VOLUME	655215.237	4194335.840	7.93
LOCATION L0010774	VOLUME	655214.318	4194337.421	7.92
LOCATION L0010775	VOLUME	655213.399	4194339.002	7.92
LOCATION L0010776	VOLUME	655212.480	4194340.583	7.92
LOCATION L0010777	VOLUME	655211.560	4194342.164	7.92
LOCATION L0010778	VOLUME	655210.641	4194343.745	7.92
LOCATION L0010779	VOLUME	655209.722	4194345.326	7.92
LOCATION L0010780	VOLUME	655208.803	4194346.907	7.92
LOCATION L0010781	VOLUME	655207.884	4194348.488	7.92
LOCATION L0010782	VOLUME	655206.964	4194350.069	7.92
LOCATION L0010783	VOLUME	655206.045	4194351.650	7.92
LOCATION L0010784	VOLUME	655205.126	4194353.231	7.92
LOCATION L0010785	VOLUME	655204.207	4194354.812	7.92
LOCATION L0010786	VOLUME	655203.288	4194356.393	7.92
LOCATION L0010787	VOLUME	655202.368	4194357.974	7.92
LOCATION L0010788	VOLUME	655201.449	4194359.555	7.92
LOCATION L0010789	VOLUME	655200.530	4194361.136	7.92
LOCATION L0010790	VOLUME	655199.611	4194362.717	7.92
LOCATION L0010791	VOLUME	655198.692	4194364.298	7.92
LOCATION L0010792	VOLUME	655197.772	4194365.879	7.92
LOCATION L0010793	VOLUME	655196.853	4194367.460	7.92
LOCATION L0010794	VOLUME	655195.934	4194369.041	7.92
LOCATION L0010795	VOLUME	655195.015	4194370.622	7.92
LOCATION L0010796	VOLUME	655194.096	4194372.203	7.92
LOCATION L0010797	VOLUME	655193.177	4194373.784	7.91
LOCATION L0010798	VOLUME	655192.257	4194375.365	7.91
LOCATION L0010799	VOLUME	655191.338	4194376.946	7.92
LOCATION L0010800	VOLUME	655190.419	4194378.527	7.92
LOCATION L0010801	VOLUME	655189.500	4194380.108	7.92
LOCATION L0010802	VOLUME	655188.581	4194381.689	7.92

LOCATION L0010803	VOLUME	655187.661	4194383.270	7.92
LOCATION L0010804	VOLUME	655186.742	4194384.851	7.92
LOCATION L0010805	VOLUME	655185.823	4194386.432	7.92
LOCATION L0010806	VOLUME	655184.904	4194388.013	7.92
LOCATION L0010807	VOLUME	655183.985	4194389.594	7.92
LOCATION L0010808	VOLUME	655183.065	4194391.175	7.92
LOCATION L0010809	VOLUME	655182.146	4194392.756	7.92
LOCATION L0010810	VOLUME	655181.227	4194394.337	7.92
LOCATION L0010811	VOLUME	655180.308	4194395.918	7.92
LOCATION L0010812	VOLUME	655179.389	4194397.499	7.92
LOCATION L0010813	VOLUME	655178.469	4194399.080	7.92
LOCATION L0010814	VOLUME	655177.550	4194400.661	7.92
LOCATION L0010815	VOLUME	655176.631	4194402.242	7.92
LOCATION L0010816	VOLUME	655175.712	4194403.823	7.92
LOCATION L0010817	VOLUME	655174.793	4194405.404	7.93
LOCATION L0010818	VOLUME	655173.873	4194406.985	7.93
LOCATION L0010819	VOLUME	655172.954	4194408.566	7.93
LOCATION L0010820	VOLUME	655172.035	4194410.147	7.93
LOCATION L0010821	VOLUME	655171.116	4194411.728	7.93
LOCATION L0010822	VOLUME	655170.197	4194413.309	7.93
LOCATION L0010823	VOLUME	655169.278	4194414.890	7.93
LOCATION L0010824	VOLUME	655168.358	4194416.471	7.93
LOCATION L0010825	VOLUME	655167.439	4194418.052	7.93
LOCATION L0010826	VOLUME	655166.520	4194419.633	7.93
LOCATION L0010827	VOLUME	655165.601	4194421.214	7.93
LOCATION L0010828	VOLUME	655164.682	4194422.795	7.93
LOCATION L0010829	VOLUME	655163.762	4194424.376	7.93
LOCATION L0010830	VOLUME	655162.843	4194425.957	7.93
LOCATION L0010831	VOLUME	655161.924	4194427.538	7.93
LOCATION L0010832	VOLUME	655161.005	4194429.119	7.93
LOCATION L0010833	VOLUME	655160.086	4194430.700	7.93
LOCATION L0010834	VOLUME	655159.166	4194432.281	7.93
LOCATION L0010835	VOLUME	655158.247	4194433.862	7.93
LOCATION L0010836	VOLUME	655157.328	4194435.443	7.93
LOCATION L0010837	VOLUME	655156.409	4194437.024	7.93
LOCATION L0010838	VOLUME	655155.490	4194438.605	7.93
LOCATION L0010839	VOLUME	655154.570	4194440.186	7.94
LOCATION L0010840	VOLUME	655153.651	4194441.767	7.94
LOCATION L0010841	VOLUME	655152.732	4194443.348	7.94
LOCATION L0010842	VOLUME	655151.813	4194444.929	7.94
LOCATION L0010843	VOLUME	655150.894	4194446.510	7.94
LOCATION L0010844	VOLUME	655149.974	4194448.091	7.94
LOCATION L0010845	VOLUME	655149.055	4194449.672	7.94
LOCATION L0010846	VOLUME	655148.136	4194451.253	7.94
LOCATION L0010847	VOLUME	655147.217	4194452.834	7.94
LOCATION L0010848	VOLUME	655146.298	4194454.415	7.94
LOCATION L0010849	VOLUME	655145.379	4194455.996	7.94
LOCATION L0010850	VOLUME	655144.459	4194457.577	7.94
LOCATION L0010851	VOLUME	655143.540	4194459.158	7.94
LOCATION L0010852	VOLUME	655142.621	4194460.739	7.94
LOCATION L0010853	VOLUME	655141.702	4194462.320	7.94
LOCATION L0010854	VOLUME	655140.783	4194463.901	7.94
LOCATION L0010855	VOLUME	655139.863	4194465.482	7.94
LOCATION L0010856	VOLUME	655138.944	4194467.063	7.94
LOCATION L0010857	VOLUME	655138.025	4194468.644	7.94

LOCATION L0010858	VOLUME	655137.106	4194470.225	7.94
LOCATION L0010859	VOLUME	655136.187	4194471.807	7.94
LOCATION L0010860	VOLUME	655135.267	4194473.388	7.94
LOCATION L0010861	VOLUME	655134.348	4194474.969	7.94
LOCATION L0010862	VOLUME	655133.429	4194476.550	7.94
LOCATION L0010863	VOLUME	655132.510	4194478.131	7.94
LOCATION L0010864	VOLUME	655131.591	4194479.712	7.94
LOCATION L0010865	VOLUME	655130.671	4194481.293	7.94
LOCATION L0010866	VOLUME	655129.752	4194482.874	7.94
LOCATION L0010867	VOLUME	655128.833	4194484.455	7.94
LOCATION L0010868	VOLUME	655127.914	4194486.036	7.94
LOCATION L0010869	VOLUME	655126.995	4194487.617	7.94
LOCATION L0010870	VOLUME	655126.075	4194489.198	7.94
LOCATION L0010871	VOLUME	655125.156	4194490.779	7.94
LOCATION L0010872	VOLUME	655124.237	4194492.360	7.94
LOCATION L0010873	VOLUME	655123.318	4194493.941	7.94
LOCATION L0010874	VOLUME	655122.399	4194495.522	7.94
LOCATION L0010875	VOLUME	655121.480	4194497.103	7.94
LOCATION L0010876	VOLUME	655120.560	4194498.684	7.94
LOCATION L0010877	VOLUME	655119.641	4194500.265	7.94
LOCATION L0010878	VOLUME	655118.722	4194501.846	7.94
LOCATION L0010879	VOLUME	655117.803	4194503.427	7.94
LOCATION L0010880	VOLUME	655116.884	4194505.008	7.94
LOCATION L0010881	VOLUME	655115.964	4194506.589	7.94
LOCATION L0010882	VOLUME	655115.045	4194508.170	7.94
LOCATION L0010883	VOLUME	655114.126	4194509.751	7.94
LOCATION L0010884	VOLUME	655113.207	4194511.332	7.94
LOCATION L0010885	VOLUME	655112.288	4194512.913	7.94
LOCATION L0010886	VOLUME	655111.368	4194514.494	7.94
LOCATION L0010887	VOLUME	655110.449	4194516.075	7.94
LOCATION L0010888	VOLUME	655109.530	4194517.656	7.94
LOCATION L0010889	VOLUME	655108.611	4194519.237	7.94
LOCATION L0010890	VOLUME	655107.692	4194520.818	7.94
LOCATION L0010891	VOLUME	655106.772	4194522.399	7.94
LOCATION L0010892	VOLUME	655105.853	4194523.980	7.94
LOCATION L0010893	VOLUME	655104.934	4194525.561	7.94
LOCATION L0010894	VOLUME	655104.015	4194527.142	7.94
LOCATION L0010895	VOLUME	655103.096	4194528.723	7.94
LOCATION L0010896	VOLUME	655102.176	4194530.304	7.94
LOCATION L0010897	VOLUME	655101.257	4194531.885	7.94
LOCATION L0010898	VOLUME	655100.338	4194533.466	7.94
LOCATION L0010899	VOLUME	655099.419	4194535.047	7.94
LOCATION L0010900	VOLUME	655098.500	4194536.628	7.94
LOCATION L0010901	VOLUME	655097.581	4194538.209	7.94
LOCATION L0010902	VOLUME	655096.661	4194539.790	7.94
LOCATION L0010903	VOLUME	655095.742	4194541.371	7.94
LOCATION L0010904	VOLUME	655094.823	4194542.952	7.94
LOCATION L0010905	VOLUME	655093.904	4194544.533	7.94
LOCATION L0010906	VOLUME	655092.985	4194546.114	7.94
LOCATION L0010907	VOLUME	655092.065	4194547.695	7.94
LOCATION L0010908	VOLUME	655091.146	4194549.276	7.94
LOCATION L0010909	VOLUME	655090.227	4194550.857	7.94
LOCATION L0010910	VOLUME	655089.308	4194552.438	7.94
LOCATION L0010911	VOLUME	655088.389	4194554.019	7.94
LOCATION L0010912	VOLUME	655087.469	4194555.600	7.94

LOCATION L0010913	VOLUME	655086.550	4194557.181	7.94
LOCATION L0010914	VOLUME	655085.631	4194558.762	7.94
LOCATION L0010915	VOLUME	655084.712	4194560.343	7.94
LOCATION L0010916	VOLUME	655083.793	4194561.924	7.94
LOCATION L0010917	VOLUME	655082.873	4194563.505	7.94
LOCATION L0010918	VOLUME	655081.954	4194565.086	7.94
LOCATION L0010919	VOLUME	655081.035	4194566.667	7.94
LOCATION L0010920	VOLUME	655080.116	4194568.248	7.94
LOCATION L0010921	VOLUME	655079.197	4194569.829	7.94
LOCATION L0010922	VOLUME	655078.277	4194571.410	7.94
LOCATION L0010923	VOLUME	655077.358	4194572.991	7.93
LOCATION L0010924	VOLUME	655076.439	4194574.572	7.93
LOCATION L0010925	VOLUME	655075.520	4194576.153	7.93
LOCATION L0010926	VOLUME	655074.601	4194577.734	7.93
LOCATION L0010927	VOLUME	655073.682	4194579.315	7.93
LOCATION L0010928	VOLUME	655072.762	4194580.896	7.93
LOCATION L0010929	VOLUME	655071.843	4194582.477	7.94
LOCATION L0010930	VOLUME	655070.924	4194584.058	7.94
LOCATION L0010931	VOLUME	655070.005	4194585.639	7.94
LOCATION L0010932	VOLUME	655069.086	4194587.220	7.94
LOCATION L0010933	VOLUME	655068.166	4194588.801	7.94
LOCATION L0010934	VOLUME	655067.247	4194590.382	7.94
LOCATION L0010935	VOLUME	655066.328	4194591.963	7.94
LOCATION L0010936	VOLUME	655065.409	4194593.544	7.94
LOCATION L0010937	VOLUME	655064.490	4194595.125	7.94
LOCATION L0010938	VOLUME	655063.570	4194596.706	7.94
LOCATION L0010939	VOLUME	655062.651	4194598.287	7.94
LOCATION L0010940	VOLUME	655061.732	4194599.868	7.94
LOCATION L0010941	VOLUME	655060.813	4194601.449	7.94
LOCATION L0010942	VOLUME	655059.894	4194603.030	7.94
LOCATION L0010943	VOLUME	655058.974	4194604.611	7.94
LOCATION L0010944	VOLUME	655058.055	4194606.192	7.94
LOCATION L0010945	VOLUME	655057.136	4194607.773	7.94

** End of LINE VOLUME Source ID = SLINE4

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = SLINE5

** DESCRSRC On-site Mobile (Bldg 4)

** PREFIX

** Length of Side = 1.83

** Configuration = Adjacent

** Emission Rate = 1.0

** Vertical Dimension = 3.66

** SZINIT = 1.70

** Nodes = 2

** 655691.932, 4193993.921, 8.48, 3.66, 0.85

** 655416.769, 4194767.688, 8.29, 3.66, 0.85

** -----

LOCATION L0010946	VOLUME	655691.626	4193994.783	8.48
LOCATION L0010947	VOLUME	655691.013	4193996.506	8.48
LOCATION L0010948	VOLUME	655690.400	4193998.229	8.48
LOCATION L0010949	VOLUME	655689.788	4193999.952	8.48
LOCATION L0010950	VOLUME	655689.175	4194001.675	8.48
LOCATION L0010951	VOLUME	655688.562	4194003.398	8.47
LOCATION L0010952	VOLUME	655687.949	4194005.121	8.47

LOCATION L0010953	VOLUME	655687.337	4194006.844	8.47
LOCATION L0010954	VOLUME	655686.724	4194008.568	8.47
LOCATION L0010955	VOLUME	655686.111	4194010.291	8.47
LOCATION L0010956	VOLUME	655685.498	4194012.014	8.47
LOCATION L0010957	VOLUME	655684.886	4194013.737	8.47
LOCATION L0010958	VOLUME	655684.273	4194015.460	8.47
LOCATION L0010959	VOLUME	655683.660	4194017.183	8.47
LOCATION L0010960	VOLUME	655683.047	4194018.906	8.47
LOCATION L0010961	VOLUME	655682.435	4194020.629	8.47
LOCATION L0010962	VOLUME	655681.822	4194022.352	8.47
LOCATION L0010963	VOLUME	655681.209	4194024.075	8.47
LOCATION L0010964	VOLUME	655680.596	4194025.798	8.47
LOCATION L0010965	VOLUME	655679.984	4194027.522	8.47
LOCATION L0010966	VOLUME	655679.371	4194029.245	8.47
LOCATION L0010967	VOLUME	655678.758	4194030.968	8.46
LOCATION L0010968	VOLUME	655678.145	4194032.691	8.46
LOCATION L0010969	VOLUME	655677.533	4194034.414	8.46
LOCATION L0010970	VOLUME	655676.920	4194036.137	8.46
LOCATION L0010971	VOLUME	655676.307	4194037.860	8.46
LOCATION L0010972	VOLUME	655675.694	4194039.583	8.46
LOCATION L0010973	VOLUME	655675.082	4194041.306	8.46
LOCATION L0010974	VOLUME	655674.469	4194043.029	8.46
LOCATION L0010975	VOLUME	655673.856	4194044.752	8.46
LOCATION L0010976	VOLUME	655673.243	4194046.476	8.46
LOCATION L0010977	VOLUME	655672.631	4194048.199	8.46
LOCATION L0010978	VOLUME	655672.018	4194049.922	8.46
LOCATION L0010979	VOLUME	655671.405	4194051.645	8.46
LOCATION L0010980	VOLUME	655670.792	4194053.368	8.46
LOCATION L0010981	VOLUME	655670.179	4194055.091	8.46
LOCATION L0010982	VOLUME	655669.567	4194056.814	8.46
LOCATION L0010983	VOLUME	655668.954	4194058.537	8.45
LOCATION L0010984	VOLUME	655668.341	4194060.260	8.45
LOCATION L0010985	VOLUME	655667.728	4194061.983	8.45
LOCATION L0010986	VOLUME	655667.116	4194063.706	8.45
LOCATION L0010987	VOLUME	655666.503	4194065.430	8.45
LOCATION L0010988	VOLUME	655665.890	4194067.153	8.45
LOCATION L0010989	VOLUME	655665.277	4194068.876	8.45
LOCATION L0010990	VOLUME	655664.665	4194070.599	8.45
LOCATION L0010991	VOLUME	655664.052	4194072.322	8.45
LOCATION L0010992	VOLUME	655663.439	4194074.045	8.44
LOCATION L0010993	VOLUME	655662.826	4194075.768	8.44
LOCATION L0010994	VOLUME	655662.214	4194077.491	8.44
LOCATION L0010995	VOLUME	655661.601	4194079.214	8.44
LOCATION L0010996	VOLUME	655660.988	4194080.937	8.44
LOCATION L0010997	VOLUME	655660.375	4194082.660	8.44
LOCATION L0010998	VOLUME	655659.763	4194084.384	8.44
LOCATION L0010999	VOLUME	655659.150	4194086.107	8.44
LOCATION L0011000	VOLUME	655658.537	4194087.830	8.43
LOCATION L0011001	VOLUME	655657.924	4194089.553	8.43
LOCATION L0011002	VOLUME	655657.312	4194091.276	8.43
LOCATION L0011003	VOLUME	655656.699	4194092.999	8.43
LOCATION L0011004	VOLUME	655656.086	4194094.722	8.43
LOCATION L0011005	VOLUME	655655.473	4194096.445	8.43
LOCATION L0011006	VOLUME	655654.861	4194098.168	8.43
LOCATION L0011007	VOLUME	655654.248	4194099.891	8.43

LOCATION L0011008	VOLUME	655653.635	4194101.614	8.43
LOCATION L0011009	VOLUME	655653.022	4194103.337	8.42
LOCATION L0011010	VOLUME	655652.410	4194105.061	8.42
LOCATION L0011011	VOLUME	655651.797	4194106.784	8.42
LOCATION L0011012	VOLUME	655651.184	4194108.507	8.42
LOCATION L0011013	VOLUME	655650.571	4194110.230	8.43
LOCATION L0011014	VOLUME	655649.959	4194111.953	8.43
LOCATION L0011015	VOLUME	655649.346	4194113.676	8.43
LOCATION L0011016	VOLUME	655648.733	4194115.399	8.42
LOCATION L0011017	VOLUME	655648.120	4194117.122	8.42
LOCATION L0011018	VOLUME	655647.508	4194118.845	8.42
LOCATION L0011019	VOLUME	655646.895	4194120.568	8.42
LOCATION L0011020	VOLUME	655646.282	4194122.291	8.42
LOCATION L0011021	VOLUME	655645.669	4194124.015	8.42
LOCATION L0011022	VOLUME	655645.056	4194125.738	8.42
LOCATION L0011023	VOLUME	655644.444	4194127.461	8.42
LOCATION L0011024	VOLUME	655643.831	4194129.184	8.42
LOCATION L0011025	VOLUME	655643.218	4194130.907	8.42
LOCATION L0011026	VOLUME	655642.605	4194132.630	8.42
LOCATION L0011027	VOLUME	655641.993	4194134.353	8.42
LOCATION L0011028	VOLUME	655641.380	4194136.076	8.42
LOCATION L0011029	VOLUME	655640.767	4194137.799	8.42
LOCATION L0011030	VOLUME	655640.154	4194139.522	8.42
LOCATION L0011031	VOLUME	655639.542	4194141.245	8.42
LOCATION L0011032	VOLUME	655638.929	4194142.969	8.42
LOCATION L0011033	VOLUME	655638.316	4194144.692	8.42
LOCATION L0011034	VOLUME	655637.703	4194146.415	8.42
LOCATION L0011035	VOLUME	655637.091	4194148.138	8.42
LOCATION L0011036	VOLUME	655636.478	4194149.861	8.42
LOCATION L0011037	VOLUME	655635.865	4194151.584	8.42
LOCATION L0011038	VOLUME	655635.252	4194153.307	8.42
LOCATION L0011039	VOLUME	655634.640	4194155.030	8.43
LOCATION L0011040	VOLUME	655634.027	4194156.753	8.43
LOCATION L0011041	VOLUME	655633.414	4194158.476	8.43
LOCATION L0011042	VOLUME	655632.801	4194160.199	8.43
LOCATION L0011043	VOLUME	655632.189	4194161.923	8.43
LOCATION L0011044	VOLUME	655631.576	4194163.646	8.43
LOCATION L0011045	VOLUME	655630.963	4194165.369	8.43
LOCATION L0011046	VOLUME	655630.350	4194167.092	8.43
LOCATION L0011047	VOLUME	655629.738	4194168.815	8.43
LOCATION L0011048	VOLUME	655629.125	4194170.538	8.43
LOCATION L0011049	VOLUME	655628.512	4194172.261	8.43
LOCATION L0011050	VOLUME	655627.899	4194173.984	8.43
LOCATION L0011051	VOLUME	655627.287	4194175.707	8.43
LOCATION L0011052	VOLUME	655626.674	4194177.430	8.43
LOCATION L0011053	VOLUME	655626.061	4194179.153	8.43
LOCATION L0011054	VOLUME	655625.448	4194180.877	8.43
LOCATION L0011055	VOLUME	655624.836	4194182.600	8.43
LOCATION L0011056	VOLUME	655624.223	4194184.323	8.43
LOCATION L0011057	VOLUME	655623.610	4194186.046	8.43
LOCATION L0011058	VOLUME	655622.997	4194187.769	8.43
LOCATION L0011059	VOLUME	655622.384	4194189.492	8.43
LOCATION L0011060	VOLUME	655621.772	4194191.215	8.43
LOCATION L0011061	VOLUME	655621.159	4194192.938	8.43
LOCATION L0011062	VOLUME	655620.546	4194194.661	8.43

LOCATION L0011063	VOLUME	655619.933	4194196.384	8.43
LOCATION L0011064	VOLUME	655619.321	4194198.107	8.43
LOCATION L0011065	VOLUME	655618.708	4194199.831	8.43
LOCATION L0011066	VOLUME	655618.095	4194201.554	8.43
LOCATION L0011067	VOLUME	655617.482	4194203.277	8.43
LOCATION L0011068	VOLUME	655616.870	4194205.000	8.43
LOCATION L0011069	VOLUME	655616.257	4194206.723	8.44
LOCATION L0011070	VOLUME	655615.644	4194208.446	8.44
LOCATION L0011071	VOLUME	655615.031	4194210.169	8.44
LOCATION L0011072	VOLUME	655614.419	4194211.892	8.44
LOCATION L0011073	VOLUME	655613.806	4194213.615	8.44
LOCATION L0011074	VOLUME	655613.193	4194215.338	8.44
LOCATION L0011075	VOLUME	655612.580	4194217.061	8.44
LOCATION L0011076	VOLUME	655611.968	4194218.785	8.44
LOCATION L0011077	VOLUME	655611.355	4194220.508	8.44
LOCATION L0011078	VOLUME	655610.742	4194222.231	8.44
LOCATION L0011079	VOLUME	655610.129	4194223.954	8.44
LOCATION L0011080	VOLUME	655609.517	4194225.677	8.44
LOCATION L0011081	VOLUME	655608.904	4194227.400	8.44
LOCATION L0011082	VOLUME	655608.291	4194229.123	8.44
LOCATION L0011083	VOLUME	655607.678	4194230.846	8.44
LOCATION L0011084	VOLUME	655607.066	4194232.569	8.44
LOCATION L0011085	VOLUME	655606.453	4194234.292	8.44
LOCATION L0011086	VOLUME	655605.840	4194236.015	8.44
LOCATION L0011087	VOLUME	655605.227	4194237.739	8.44
LOCATION L0011088	VOLUME	655604.615	4194239.462	8.44
LOCATION L0011089	VOLUME	655604.002	4194241.185	8.44
LOCATION L0011090	VOLUME	655603.389	4194242.908	8.44
LOCATION L0011091	VOLUME	655602.776	4194244.631	8.44
LOCATION L0011092	VOLUME	655602.164	4194246.354	8.44
LOCATION L0011093	VOLUME	655601.551	4194248.077	8.44
LOCATION L0011094	VOLUME	655600.938	4194249.800	8.45
LOCATION L0011095	VOLUME	655600.325	4194251.523	8.45
LOCATION L0011096	VOLUME	655599.712	4194253.246	8.45
LOCATION L0011097	VOLUME	655599.100	4194254.969	8.45
LOCATION L0011098	VOLUME	655598.487	4194256.692	8.45
LOCATION L0011099	VOLUME	655597.874	4194258.416	8.45
LOCATION L0011100	VOLUME	655597.261	4194260.139	8.45
LOCATION L0011101	VOLUME	655596.649	4194261.862	8.45
LOCATION L0011102	VOLUME	655596.036	4194263.585	8.45
LOCATION L0011103	VOLUME	655595.423	4194265.308	8.45
LOCATION L0011104	VOLUME	655594.810	4194267.031	8.45
LOCATION L0011105	VOLUME	655594.198	4194268.754	8.45
LOCATION L0011106	VOLUME	655593.585	4194270.477	8.45
LOCATION L0011107	VOLUME	655592.972	4194272.200	8.45
LOCATION L0011108	VOLUME	655592.359	4194273.923	8.45
LOCATION L0011109	VOLUME	655591.747	4194275.646	8.45
LOCATION L0011110	VOLUME	655591.134	4194277.370	8.45
LOCATION L0011111	VOLUME	655590.521	4194279.093	8.45
LOCATION L0011112	VOLUME	655589.908	4194280.816	8.45
LOCATION L0011113	VOLUME	655589.296	4194282.539	8.45
LOCATION L0011114	VOLUME	655588.683	4194284.262	8.45
LOCATION L0011115	VOLUME	655588.070	4194285.985	8.45
LOCATION L0011116	VOLUME	655587.457	4194287.708	8.45
LOCATION L0011117	VOLUME	655586.845	4194289.431	8.45

LOCATION L0011118	VOLUME	655586.232	4194291.154	8.45
LOCATION L0011119	VOLUME	655585.619	4194292.877	8.45
LOCATION L0011120	VOLUME	655585.006	4194294.600	8.45
LOCATION L0011121	VOLUME	655584.394	4194296.324	8.45
LOCATION L0011122	VOLUME	655583.781	4194298.047	8.45
LOCATION L0011123	VOLUME	655583.168	4194299.770	8.45
LOCATION L0011124	VOLUME	655582.555	4194301.493	8.45
LOCATION L0011125	VOLUME	655581.943	4194303.216	8.45
LOCATION L0011126	VOLUME	655581.330	4194304.939	8.45
LOCATION L0011127	VOLUME	655580.717	4194306.662	8.45
LOCATION L0011128	VOLUME	655580.104	4194308.385	8.45
LOCATION L0011129	VOLUME	655579.492	4194310.108	8.46
LOCATION L0011130	VOLUME	655578.879	4194311.831	8.46
LOCATION L0011131	VOLUME	655578.266	4194313.554	8.46
LOCATION L0011132	VOLUME	655577.653	4194315.278	8.46
LOCATION L0011133	VOLUME	655577.040	4194317.001	8.46
LOCATION L0011134	VOLUME	655576.428	4194318.724	8.46
LOCATION L0011135	VOLUME	655575.815	4194320.447	8.46
LOCATION L0011136	VOLUME	655575.202	4194322.170	8.46
LOCATION L0011137	VOLUME	655574.589	4194323.893	8.46
LOCATION L0011138	VOLUME	655573.977	4194325.616	8.46
LOCATION L0011139	VOLUME	655573.364	4194327.339	8.46
LOCATION L0011140	VOLUME	655572.751	4194329.062	8.46
LOCATION L0011141	VOLUME	655572.138	4194330.785	8.46
LOCATION L0011142	VOLUME	655571.526	4194332.508	8.46
LOCATION L0011143	VOLUME	655570.913	4194334.232	8.46
LOCATION L0011144	VOLUME	655570.300	4194335.955	8.46
LOCATION L0011145	VOLUME	655569.687	4194337.678	8.46
LOCATION L0011146	VOLUME	655569.075	4194339.401	8.46
LOCATION L0011147	VOLUME	655568.462	4194341.124	8.46
LOCATION L0011148	VOLUME	655567.849	4194342.847	8.46
LOCATION L0011149	VOLUME	655567.236	4194344.570	8.46
LOCATION L0011150	VOLUME	655566.624	4194346.293	8.46
LOCATION L0011151	VOLUME	655566.011	4194348.016	8.46
LOCATION L0011152	VOLUME	655565.398	4194349.739	8.46
LOCATION L0011153	VOLUME	655564.785	4194351.462	8.46
LOCATION L0011154	VOLUME	655564.173	4194353.186	8.46
LOCATION L0011155	VOLUME	655563.560	4194354.909	8.46
LOCATION L0011156	VOLUME	655562.947	4194356.632	8.46
LOCATION L0011157	VOLUME	655562.334	4194358.355	8.46
LOCATION L0011158	VOLUME	655561.722	4194360.078	8.46
LOCATION L0011159	VOLUME	655561.109	4194361.801	8.46
LOCATION L0011160	VOLUME	655560.496	4194363.524	8.47
LOCATION L0011161	VOLUME	655559.883	4194365.247	8.47
LOCATION L0011162	VOLUME	655559.271	4194366.970	8.47
LOCATION L0011163	VOLUME	655558.658	4194368.693	8.47
LOCATION L0011164	VOLUME	655558.045	4194370.416	8.47
LOCATION L0011165	VOLUME	655557.432	4194372.140	8.47
LOCATION L0011166	VOLUME	655556.820	4194373.863	8.47
LOCATION L0011167	VOLUME	655556.207	4194375.586	8.46
LOCATION L0011168	VOLUME	655555.594	4194377.309	8.46
LOCATION L0011169	VOLUME	655554.981	4194379.032	8.46
LOCATION L0011170	VOLUME	655554.369	4194380.755	8.46
LOCATION L0011171	VOLUME	655553.756	4194382.478	8.46
LOCATION L0011172	VOLUME	655553.143	4194384.201	8.46

LOCATION L0011173	VOLUME	655552.530	4194385.924	8.46
LOCATION L0011174	VOLUME	655551.917	4194387.647	8.46
LOCATION L0011175	VOLUME	655551.305	4194389.370	8.46
LOCATION L0011176	VOLUME	655550.692	4194391.094	8.46
LOCATION L0011177	VOLUME	655550.079	4194392.817	8.46
LOCATION L0011178	VOLUME	655549.466	4194394.540	8.46
LOCATION L0011179	VOLUME	655548.854	4194396.263	8.46
LOCATION L0011180	VOLUME	655548.241	4194397.986	8.46
LOCATION L0011181	VOLUME	655547.628	4194399.709	8.46
LOCATION L0011182	VOLUME	655547.015	4194401.432	8.46
LOCATION L0011183	VOLUME	655546.403	4194403.155	8.46
LOCATION L0011184	VOLUME	655545.790	4194404.878	8.46
LOCATION L0011185	VOLUME	655545.177	4194406.601	8.46
LOCATION L0011186	VOLUME	655544.564	4194408.324	8.46
LOCATION L0011187	VOLUME	655543.952	4194410.047	8.46
LOCATION L0011188	VOLUME	655543.339	4194411.771	8.45
LOCATION L0011189	VOLUME	655542.726	4194413.494	8.45
LOCATION L0011190	VOLUME	655542.113	4194415.217	8.45
LOCATION L0011191	VOLUME	655541.501	4194416.940	8.45
LOCATION L0011192	VOLUME	655540.888	4194418.663	8.45
LOCATION L0011193	VOLUME	655540.275	4194420.386	8.45
LOCATION L0011194	VOLUME	655539.662	4194422.109	8.45
LOCATION L0011195	VOLUME	655539.050	4194423.832	8.45
LOCATION L0011196	VOLUME	655538.437	4194425.555	8.45
LOCATION L0011197	VOLUME	655537.824	4194427.278	8.45
LOCATION L0011198	VOLUME	655537.211	4194429.001	8.45
LOCATION L0011199	VOLUME	655536.599	4194430.725	8.45
LOCATION L0011200	VOLUME	655535.986	4194432.448	8.45
LOCATION L0011201	VOLUME	655535.373	4194434.171	8.45
LOCATION L0011202	VOLUME	655534.760	4194435.894	8.45
LOCATION L0011203	VOLUME	655534.148	4194437.617	8.45
LOCATION L0011204	VOLUME	655533.535	4194439.340	8.45
LOCATION L0011205	VOLUME	655532.922	4194441.063	8.44
LOCATION L0011206	VOLUME	655532.309	4194442.786	8.44
LOCATION L0011207	VOLUME	655531.697	4194444.509	8.44
LOCATION L0011208	VOLUME	655531.084	4194446.232	8.44
LOCATION L0011209	VOLUME	655530.471	4194447.955	8.44
LOCATION L0011210	VOLUME	655529.858	4194449.679	8.44
LOCATION L0011211	VOLUME	655529.245	4194451.402	8.44
LOCATION L0011212	VOLUME	655528.633	4194453.125	8.44
LOCATION L0011213	VOLUME	655528.020	4194454.848	8.44
LOCATION L0011214	VOLUME	655527.407	4194456.571	8.44
LOCATION L0011215	VOLUME	655526.794	4194458.294	8.44
LOCATION L0011216	VOLUME	655526.182	4194460.017	8.44
LOCATION L0011217	VOLUME	655525.569	4194461.740	8.44
LOCATION L0011218	VOLUME	655524.956	4194463.463	8.44
LOCATION L0011219	VOLUME	655524.343	4194465.186	8.44
LOCATION L0011220	VOLUME	655523.731	4194466.909	8.44
LOCATION L0011221	VOLUME	655523.118	4194468.633	8.44
LOCATION L0011222	VOLUME	655522.505	4194470.356	8.44
LOCATION L0011223	VOLUME	655521.892	4194472.079	8.44
LOCATION L0011224	VOLUME	655521.280	4194473.802	8.44
LOCATION L0011225	VOLUME	655520.667	4194475.525	8.44
LOCATION L0011226	VOLUME	655520.054	4194477.248	8.44
LOCATION L0011227	VOLUME	655519.441	4194478.971	8.44

LOCATION L0011228	VOLUME	655518.829	4194480.694	8.43
LOCATION L0011229	VOLUME	655518.216	4194482.417	8.43
LOCATION L0011230	VOLUME	655517.603	4194484.140	8.43
LOCATION L0011231	VOLUME	655516.990	4194485.863	8.43
LOCATION L0011232	VOLUME	655516.378	4194487.587	8.43
LOCATION L0011233	VOLUME	655515.765	4194489.310	8.43
LOCATION L0011234	VOLUME	655515.152	4194491.033	8.43
LOCATION L0011235	VOLUME	655514.539	4194492.756	8.43
LOCATION L0011236	VOLUME	655513.927	4194494.479	8.43
LOCATION L0011237	VOLUME	655513.314	4194496.202	8.43
LOCATION L0011238	VOLUME	655512.701	4194497.925	8.42
LOCATION L0011239	VOLUME	655512.088	4194499.648	8.42
LOCATION L0011240	VOLUME	655511.476	4194501.371	8.42
LOCATION L0011241	VOLUME	655510.863	4194503.094	8.42
LOCATION L0011242	VOLUME	655510.250	4194504.817	8.42
LOCATION L0011243	VOLUME	655509.637	4194506.541	8.42
LOCATION L0011244	VOLUME	655509.025	4194508.264	8.42
LOCATION L0011245	VOLUME	655508.412	4194509.987	8.42
LOCATION L0011246	VOLUME	655507.799	4194511.710	8.42
LOCATION L0011247	VOLUME	655507.186	4194513.433	8.42
LOCATION L0011248	VOLUME	655506.573	4194515.156	8.42
LOCATION L0011249	VOLUME	655505.961	4194516.879	8.42
LOCATION L0011250	VOLUME	655505.348	4194518.602	8.42
LOCATION L0011251	VOLUME	655504.735	4194520.325	8.41
LOCATION L0011252	VOLUME	655504.122	4194522.048	8.41
LOCATION L0011253	VOLUME	655503.510	4194523.771	8.41
LOCATION L0011254	VOLUME	655502.897	4194525.495	8.41
LOCATION L0011255	VOLUME	655502.284	4194527.218	8.41
LOCATION L0011256	VOLUME	655501.671	4194528.941	8.41
LOCATION L0011257	VOLUME	655501.059	4194530.664	8.41
LOCATION L0011258	VOLUME	655500.446	4194532.387	8.41
LOCATION L0011259	VOLUME	655499.833	4194534.110	8.41
LOCATION L0011260	VOLUME	655499.220	4194535.833	8.41
LOCATION L0011261	VOLUME	655498.608	4194537.556	8.41
LOCATION L0011262	VOLUME	655497.995	4194539.279	8.41
LOCATION L0011263	VOLUME	655497.382	4194541.002	8.41
LOCATION L0011264	VOLUME	655496.769	4194542.725	8.41
LOCATION L0011265	VOLUME	655496.157	4194544.449	8.41
LOCATION L0011266	VOLUME	655495.544	4194546.172	8.41
LOCATION L0011267	VOLUME	655494.931	4194547.895	8.41
LOCATION L0011268	VOLUME	655494.318	4194549.618	8.40
LOCATION L0011269	VOLUME	655493.706	4194551.341	8.40
LOCATION L0011270	VOLUME	655493.093	4194553.064	8.40
LOCATION L0011271	VOLUME	655492.480	4194554.787	8.40
LOCATION L0011272	VOLUME	655491.867	4194556.510	8.40
LOCATION L0011273	VOLUME	655491.255	4194558.233	8.40
LOCATION L0011274	VOLUME	655490.642	4194559.956	8.40
LOCATION L0011275	VOLUME	655490.029	4194561.679	8.40
LOCATION L0011276	VOLUME	655489.416	4194563.403	8.40
LOCATION L0011277	VOLUME	655488.804	4194565.126	8.39
LOCATION L0011278	VOLUME	655488.191	4194566.849	8.39
LOCATION L0011279	VOLUME	655487.578	4194568.572	8.39
LOCATION L0011280	VOLUME	655486.965	4194570.295	8.39
LOCATION L0011281	VOLUME	655486.353	4194572.018	8.39
LOCATION L0011282	VOLUME	655485.740	4194573.741	8.39

LOCATION L0011283	VOLUME	655485.127	4194575.464	8.39
LOCATION L0011284	VOLUME	655484.514	4194577.187	8.39
LOCATION L0011285	VOLUME	655483.901	4194578.910	8.39
LOCATION L0011286	VOLUME	655483.289	4194580.633	8.39
LOCATION L0011287	VOLUME	655482.676	4194582.356	8.38
LOCATION L0011288	VOLUME	655482.063	4194584.080	8.38
LOCATION L0011289	VOLUME	655481.450	4194585.803	8.38
LOCATION L0011290	VOLUME	655480.838	4194587.526	8.38
LOCATION L0011291	VOLUME	655480.225	4194589.249	8.38
LOCATION L0011292	VOLUME	655479.612	4194590.972	8.38
LOCATION L0011293	VOLUME	655478.999	4194592.695	8.38
LOCATION L0011294	VOLUME	655478.387	4194594.418	8.38
LOCATION L0011295	VOLUME	655477.774	4194596.141	8.38
LOCATION L0011296	VOLUME	655477.161	4194597.864	8.38
LOCATION L0011297	VOLUME	655476.548	4194599.587	8.38
LOCATION L0011298	VOLUME	655475.936	4194601.310	8.38
LOCATION L0011299	VOLUME	655475.323	4194603.034	8.38
LOCATION L0011300	VOLUME	655474.710	4194604.757	8.38
LOCATION L0011301	VOLUME	655474.097	4194606.480	8.37
LOCATION L0011302	VOLUME	655473.485	4194608.203	8.37
LOCATION L0011303	VOLUME	655472.872	4194609.926	8.37
LOCATION L0011304	VOLUME	655472.259	4194611.649	8.37
LOCATION L0011305	VOLUME	655471.646	4194613.372	8.37
LOCATION L0011306	VOLUME	655471.034	4194615.095	8.37
LOCATION L0011307	VOLUME	655470.421	4194616.818	8.37
LOCATION L0011308	VOLUME	655469.808	4194618.541	8.37
LOCATION L0011309	VOLUME	655469.195	4194620.264	8.37
LOCATION L0011310	VOLUME	655468.583	4194621.988	8.37
LOCATION L0011311	VOLUME	655467.970	4194623.711	8.37
LOCATION L0011312	VOLUME	655467.357	4194625.434	8.37
LOCATION L0011313	VOLUME	655466.744	4194627.157	8.37
LOCATION L0011314	VOLUME	655466.132	4194628.880	8.37
LOCATION L0011315	VOLUME	655465.519	4194630.603	8.37
LOCATION L0011316	VOLUME	655464.906	4194632.326	8.37
LOCATION L0011317	VOLUME	655464.293	4194634.049	8.36
LOCATION L0011318	VOLUME	655463.681	4194635.772	8.36
LOCATION L0011319	VOLUME	655463.068	4194637.495	8.36
LOCATION L0011320	VOLUME	655462.455	4194639.218	8.36
LOCATION L0011321	VOLUME	655461.842	4194640.942	8.36
LOCATION L0011322	VOLUME	655461.230	4194642.665	8.36
LOCATION L0011323	VOLUME	655460.617	4194644.388	8.36
LOCATION L0011324	VOLUME	655460.004	4194646.111	8.36
LOCATION L0011325	VOLUME	655459.391	4194647.834	8.36
LOCATION L0011326	VOLUME	655458.778	4194649.557	8.35
LOCATION L0011327	VOLUME	655458.166	4194651.280	8.35
LOCATION L0011328	VOLUME	655457.553	4194653.003	8.35
LOCATION L0011329	VOLUME	655456.940	4194654.726	8.35
LOCATION L0011330	VOLUME	655456.327	4194656.449	8.35
LOCATION L0011331	VOLUME	655455.715	4194658.172	8.35
LOCATION L0011332	VOLUME	655455.102	4194659.896	8.35
LOCATION L0011333	VOLUME	655454.489	4194661.619	8.35
LOCATION L0011334	VOLUME	655453.876	4194663.342	8.35
LOCATION L0011335	VOLUME	655453.264	4194665.065	8.35
LOCATION L0011336	VOLUME	655452.651	4194666.788	8.34
LOCATION L0011337	VOLUME	655452.038	4194668.511	8.34

LOCATION L0011338	VOLUME	655451.425	4194670.234	8.34
LOCATION L0011339	VOLUME	655450.813	4194671.957	8.34
LOCATION L0011340	VOLUME	655450.200	4194673.680	8.34
LOCATION L0011341	VOLUME	655449.587	4194675.403	8.34
LOCATION L0011342	VOLUME	655448.974	4194677.126	8.34
LOCATION L0011343	VOLUME	655448.362	4194678.850	8.34
LOCATION L0011344	VOLUME	655447.749	4194680.573	8.34
LOCATION L0011345	VOLUME	655447.136	4194682.296	8.34
LOCATION L0011346	VOLUME	655446.523	4194684.019	8.34
LOCATION L0011347	VOLUME	655445.911	4194685.742	8.34
LOCATION L0011348	VOLUME	655445.298	4194687.465	8.34
LOCATION L0011349	VOLUME	655444.685	4194689.188	8.33
LOCATION L0011350	VOLUME	655444.072	4194690.911	8.33
LOCATION L0011351	VOLUME	655443.460	4194692.634	8.33
LOCATION L0011352	VOLUME	655442.847	4194694.357	8.33
LOCATION L0011353	VOLUME	655442.234	4194696.080	8.33
LOCATION L0011354	VOLUME	655441.621	4194697.804	8.33
LOCATION L0011355	VOLUME	655441.009	4194699.527	8.33
LOCATION L0011356	VOLUME	655440.396	4194701.250	8.33
LOCATION L0011357	VOLUME	655439.783	4194702.973	8.32
LOCATION L0011358	VOLUME	655439.170	4194704.696	8.32
LOCATION L0011359	VOLUME	655438.558	4194706.419	8.32
LOCATION L0011360	VOLUME	655437.945	4194708.142	8.32
LOCATION L0011361	VOLUME	655437.332	4194709.865	8.32
LOCATION L0011362	VOLUME	655436.719	4194711.588	8.32
LOCATION L0011363	VOLUME	655436.106	4194713.311	8.32
LOCATION L0011364	VOLUME	655435.494	4194715.034	8.32
LOCATION L0011365	VOLUME	655434.881	4194716.758	8.32
LOCATION L0011366	VOLUME	655434.268	4194718.481	8.32
LOCATION L0011367	VOLUME	655433.655	4194720.204	8.31
LOCATION L0011368	VOLUME	655433.043	4194721.927	8.31
LOCATION L0011369	VOLUME	655432.430	4194723.650	8.31
LOCATION L0011370	VOLUME	655431.817	4194725.373	8.31
LOCATION L0011371	VOLUME	655431.204	4194727.096	8.31
LOCATION L0011372	VOLUME	655430.592	4194728.819	8.31
LOCATION L0011373	VOLUME	655429.979	4194730.542	8.31
LOCATION L0011374	VOLUME	655429.366	4194732.265	8.31
LOCATION L0011375	VOLUME	655428.753	4194733.988	8.31
LOCATION L0011376	VOLUME	655428.141	4194735.711	8.31
LOCATION L0011377	VOLUME	655427.528	4194737.435	8.31
LOCATION L0011378	VOLUME	655426.915	4194739.158	8.31
LOCATION L0011379	VOLUME	655426.302	4194740.881	8.31
LOCATION L0011380	VOLUME	655425.690	4194742.604	8.31
LOCATION L0011381	VOLUME	655425.077	4194744.327	8.31
LOCATION L0011382	VOLUME	655424.464	4194746.050	8.31
LOCATION L0011383	VOLUME	655423.851	4194747.773	8.30
LOCATION L0011384	VOLUME	655423.239	4194749.496	8.30
LOCATION L0011385	VOLUME	655422.626	4194751.219	8.30
LOCATION L0011386	VOLUME	655422.013	4194752.942	8.30
LOCATION L0011387	VOLUME	655421.400	4194754.665	8.30
LOCATION L0011388	VOLUME	655420.788	4194756.389	8.30
LOCATION L0011389	VOLUME	655420.175	4194758.112	8.30
LOCATION L0011390	VOLUME	655419.562	4194759.835	8.30
LOCATION L0011391	VOLUME	655418.949	4194761.558	8.30
LOCATION L0011392	VOLUME	655418.337	4194763.281	8.30

LOCATION L0011393 VOLUME 655417.724 4194765.004 8.30
 LOCATION L0011394 VOLUME 655417.111 4194766.727 8.30
 ** End of LINE VOLUME Source ID = SLINE5
 ** -----
 ** Line Source Represented by Adjacent Volume Sources
 ** LINE VOLUME Source ID = SLINE6
 ** DESCRSRC On-site Mobile (Bldg 5)
 ** PREFIX
 ** Length of Side = 1.83
 ** Configuration = Adjacent
 ** Emission Rate = 1.0
 ** Vertical Dimension = 3.66
 ** SZINIT = 1.70
 ** Nodes = 2
 ** 656008.473, 4193993.921, 8.98, 3.66, 0.85
 ** 655991.922, 4194279.429, 8.87, 3.66, 0.85
 ** -----
 LOCATION L0011395 VOLUME 656008.420 4193994.834 8.98
 LOCATION L0011396 VOLUME 656008.315 4193996.660 8.98
 LOCATION L0011397 VOLUME 656008.209 4193998.486 8.98
 LOCATION L0011398 VOLUME 656008.103 4194000.311 8.98
 LOCATION L0011399 VOLUME 656007.997 4194002.137 8.99
 LOCATION L0011400 VOLUME 656007.891 4194003.963 8.99
 LOCATION L0011401 VOLUME 656007.785 4194005.789 8.99
 LOCATION L0011402 VOLUME 656007.679 4194007.614 8.99
 LOCATION L0011403 VOLUME 656007.574 4194009.440 8.99
 LOCATION L0011404 VOLUME 656007.468 4194011.266 8.99
 LOCATION L0011405 VOLUME 656007.362 4194013.092 8.99
 LOCATION L0011406 VOLUME 656007.256 4194014.917 8.99
 LOCATION L0011407 VOLUME 656007.150 4194016.743 8.99
 LOCATION L0011408 VOLUME 656007.044 4194018.569 8.99
 LOCATION L0011409 VOLUME 656006.939 4194020.394 8.99
 LOCATION L0011410 VOLUME 656006.833 4194022.220 8.99
 LOCATION L0011411 VOLUME 656006.727 4194024.046 8.99
 LOCATION L0011412 VOLUME 656006.621 4194025.872 8.99
 LOCATION L0011413 VOLUME 656006.515 4194027.697 8.99
 LOCATION L0011414 VOLUME 656006.409 4194029.523 8.99
 LOCATION L0011415 VOLUME 656006.304 4194031.349 8.99
 LOCATION L0011416 VOLUME 656006.198 4194033.175 8.99
 LOCATION L0011417 VOLUME 656006.092 4194035.000 9.00
 LOCATION L0011418 VOLUME 656005.986 4194036.826 9.00
 LOCATION L0011419 VOLUME 656005.880 4194038.652 9.00
 LOCATION L0011420 VOLUME 656005.774 4194040.478 9.00
 LOCATION L0011421 VOLUME 656005.669 4194042.303 9.00
 LOCATION L0011422 VOLUME 656005.563 4194044.129 9.00
 LOCATION L0011423 VOLUME 656005.457 4194045.955 9.00
 LOCATION L0011424 VOLUME 656005.351 4194047.780 9.00
 LOCATION L0011425 VOLUME 656005.245 4194049.606 9.00
 LOCATION L0011426 VOLUME 656005.139 4194051.432 9.00
 LOCATION L0011427 VOLUME 656005.033 4194053.258 9.00
 LOCATION L0011428 VOLUME 656004.928 4194055.083 9.00
 LOCATION L0011429 VOLUME 656004.822 4194056.909 9.00
 LOCATION L0011430 VOLUME 656004.716 4194058.735 9.00
 LOCATION L0011431 VOLUME 656004.610 4194060.561 9.00
 LOCATION L0011432 VOLUME 656004.504 4194062.386 9.00

LOCATION L0011433	VOLUME	656004.398	4194064.212	9.00
LOCATION L0011434	VOLUME	656004.293	4194066.038	9.01
LOCATION L0011435	VOLUME	656004.187	4194067.864	9.01
LOCATION L0011436	VOLUME	656004.081	4194069.689	9.01
LOCATION L0011437	VOLUME	656003.975	4194071.515	9.01
LOCATION L0011438	VOLUME	656003.869	4194073.341	9.01
LOCATION L0011439	VOLUME	656003.763	4194075.166	9.01
LOCATION L0011440	VOLUME	656003.658	4194076.992	9.01
LOCATION L0011441	VOLUME	656003.552	4194078.818	9.01
LOCATION L0011442	VOLUME	656003.446	4194080.644	9.01
LOCATION L0011443	VOLUME	656003.340	4194082.469	9.01
LOCATION L0011444	VOLUME	656003.234	4194084.295	9.01
LOCATION L0011445	VOLUME	656003.128	4194086.121	9.01
LOCATION L0011446	VOLUME	656003.023	4194087.947	9.01
LOCATION L0011447	VOLUME	656002.917	4194089.772	9.01
LOCATION L0011448	VOLUME	656002.811	4194091.598	9.01
LOCATION L0011449	VOLUME	656002.705	4194093.424	9.01
LOCATION L0011450	VOLUME	656002.599	4194095.250	9.01
LOCATION L0011451	VOLUME	656002.493	4194097.075	9.01
LOCATION L0011452	VOLUME	656002.387	4194098.901	9.02
LOCATION L0011453	VOLUME	656002.282	4194100.727	9.02
LOCATION L0011454	VOLUME	656002.176	4194102.553	9.02
LOCATION L0011455	VOLUME	656002.070	4194104.378	9.02
LOCATION L0011456	VOLUME	656001.964	4194106.204	9.02
LOCATION L0011457	VOLUME	656001.858	4194108.030	9.02
LOCATION L0011458	VOLUME	656001.752	4194109.855	9.02
LOCATION L0011459	VOLUME	656001.647	4194111.681	9.02
LOCATION L0011460	VOLUME	656001.541	4194113.507	9.02
LOCATION L0011461	VOLUME	656001.435	4194115.333	9.02
LOCATION L0011462	VOLUME	656001.329	4194117.158	9.02
LOCATION L0011463	VOLUME	656001.223	4194118.984	9.02
LOCATION L0011464	VOLUME	656001.117	4194120.810	9.02
LOCATION L0011465	VOLUME	656001.012	4194122.636	9.02
LOCATION L0011466	VOLUME	656000.906	4194124.461	9.02
LOCATION L0011467	VOLUME	656000.800	4194126.287	9.02
LOCATION L0011468	VOLUME	656000.694	4194128.113	9.02
LOCATION L0011469	VOLUME	656000.588	4194129.939	9.02
LOCATION L0011470	VOLUME	656000.482	4194131.764	9.02
LOCATION L0011471	VOLUME	656000.377	4194133.590	9.02
LOCATION L0011472	VOLUME	656000.271	4194135.416	9.02
LOCATION L0011473	VOLUME	656000.165	4194137.241	9.02
LOCATION L0011474	VOLUME	656000.059	4194139.067	9.02
LOCATION L0011475	VOLUME	655999.953	4194140.893	9.02
LOCATION L0011476	VOLUME	655999.847	4194142.719	9.02
LOCATION L0011477	VOLUME	655999.741	4194144.544	9.02
LOCATION L0011478	VOLUME	655999.636	4194146.370	9.02
LOCATION L0011479	VOLUME	655999.530	4194148.196	9.02
LOCATION L0011480	VOLUME	655999.424	4194150.022	9.02
LOCATION L0011481	VOLUME	655999.318	4194151.847	9.02
LOCATION L0011482	VOLUME	655999.212	4194153.673	9.02
LOCATION L0011483	VOLUME	655999.106	4194155.499	9.01
LOCATION L0011484	VOLUME	655999.001	4194157.325	9.01
LOCATION L0011485	VOLUME	655998.895	4194159.150	9.01
LOCATION L0011486	VOLUME	655998.789	4194160.976	9.01
LOCATION L0011487	VOLUME	655998.683	4194162.802	9.01

LOCATION L0011488	VOLUME	655998.577	4194164.627	9.01
LOCATION L0011489	VOLUME	655998.471	4194166.453	9.01
LOCATION L0011490	VOLUME	655998.366	4194168.279	9.01
LOCATION L0011491	VOLUME	655998.260	4194170.105	9.01
LOCATION L0011492	VOLUME	655998.154	4194171.930	9.01
LOCATION L0011493	VOLUME	655998.048	4194173.756	9.01
LOCATION L0011494	VOLUME	655997.942	4194175.582	9.01
LOCATION L0011495	VOLUME	655997.836	4194177.408	9.01
LOCATION L0011496	VOLUME	655997.731	4194179.233	9.01
LOCATION L0011497	VOLUME	655997.625	4194181.059	9.01
LOCATION L0011498	VOLUME	655997.519	4194182.885	9.01
LOCATION L0011499	VOLUME	655997.413	4194184.711	9.00
LOCATION L0011500	VOLUME	655997.307	4194186.536	9.00
LOCATION L0011501	VOLUME	655997.201	4194188.362	9.00
LOCATION L0011502	VOLUME	655997.096	4194190.188	9.00
LOCATION L0011503	VOLUME	655996.990	4194192.014	9.00
LOCATION L0011504	VOLUME	655996.884	4194193.839	8.99
LOCATION L0011505	VOLUME	655996.778	4194195.665	8.99
LOCATION L0011506	VOLUME	655996.672	4194197.491	8.99
LOCATION L0011507	VOLUME	655996.566	4194199.316	8.99
LOCATION L0011508	VOLUME	655996.460	4194201.142	8.99
LOCATION L0011509	VOLUME	655996.355	4194202.968	8.99
LOCATION L0011510	VOLUME	655996.249	4194204.794	8.99
LOCATION L0011511	VOLUME	655996.143	4194206.619	8.99
LOCATION L0011512	VOLUME	655996.037	4194208.445	8.98
LOCATION L0011513	VOLUME	655995.931	4194210.271	8.98
LOCATION L0011514	VOLUME	655995.825	4194212.097	8.98
LOCATION L0011515	VOLUME	655995.720	4194213.922	8.98
LOCATION L0011516	VOLUME	655995.614	4194215.748	8.98
LOCATION L0011517	VOLUME	655995.508	4194217.574	8.97
LOCATION L0011518	VOLUME	655995.402	4194219.400	8.97
LOCATION L0011519	VOLUME	655995.296	4194221.225	8.97
LOCATION L0011520	VOLUME	655995.190	4194223.051	8.97
LOCATION L0011521	VOLUME	655995.085	4194224.877	8.96
LOCATION L0011522	VOLUME	655994.979	4194226.702	8.96
LOCATION L0011523	VOLUME	655994.873	4194228.528	8.96
LOCATION L0011524	VOLUME	655994.767	4194230.354	8.96
LOCATION L0011525	VOLUME	655994.661	4194232.180	8.96
LOCATION L0011526	VOLUME	655994.555	4194234.005	8.95
LOCATION L0011527	VOLUME	655994.450	4194235.831	8.95
LOCATION L0011528	VOLUME	655994.344	4194237.657	8.95
LOCATION L0011529	VOLUME	655994.238	4194239.483	8.94
LOCATION L0011530	VOLUME	655994.132	4194241.308	8.94
LOCATION L0011531	VOLUME	655994.026	4194243.134	8.94
LOCATION L0011532	VOLUME	655993.920	4194244.960	8.93
LOCATION L0011533	VOLUME	655993.814	4194246.786	8.93
LOCATION L0011534	VOLUME	655993.709	4194248.611	8.93
LOCATION L0011535	VOLUME	655993.603	4194250.437	8.92
LOCATION L0011536	VOLUME	655993.497	4194252.263	8.92
LOCATION L0011537	VOLUME	655993.391	4194254.088	8.92
LOCATION L0011538	VOLUME	655993.285	4194255.914	8.91
LOCATION L0011539	VOLUME	655993.179	4194257.740	8.91
LOCATION L0011540	VOLUME	655993.074	4194259.566	8.91
LOCATION L0011541	VOLUME	655992.968	4194261.391	8.90
LOCATION L0011542	VOLUME	655992.862	4194263.217	8.90

LOCATION L0011543	VOLUME	655992.756	4194265.043	8.90
LOCATION L0011544	VOLUME	655992.650	4194266.869	8.89
LOCATION L0011545	VOLUME	655992.544	4194268.694	8.89
LOCATION L0011546	VOLUME	655992.439	4194270.520	8.88
LOCATION L0011547	VOLUME	655992.333	4194272.346	8.88
LOCATION L0011548	VOLUME	655992.227	4194274.172	8.87
LOCATION L0011549	VOLUME	655992.121	4194275.997	8.87
LOCATION L0011550	VOLUME	655992.015	4194277.823	8.86

** End of LINE VOLUME Source ID = SLINE6

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = SLINE7

** DESCRSRC On-site Mobile (Bldg 6)

** PREFIX

** Length of Side = 1.83

** Configuration = Adjacent

** Emission Rate = 1.0

** Vertical Dimension = 3.66

** SZINIT = 1.70

** Nodes = 2

** 656325.014, 4194004.266, 9.47, 3.66, 0.85

** 656314.670, 4194227.706, 9.34, 3.66, 0.85

** -----

LOCATION L0011551	VOLUME	656324.972	4194005.179	9.47
LOCATION L0011552	VOLUME	656324.887	4194007.006	9.47
LOCATION L0011553	VOLUME	656324.803	4194008.833	9.47
LOCATION L0011554	VOLUME	656324.718	4194010.660	9.47
LOCATION L0011555	VOLUME	656324.634	4194012.487	9.47
LOCATION L0011556	VOLUME	656324.549	4194014.313	9.47
LOCATION L0011557	VOLUME	656324.464	4194016.140	9.47
LOCATION L0011558	VOLUME	656324.380	4194017.967	9.47
LOCATION L0011559	VOLUME	656324.295	4194019.794	9.47
LOCATION L0011560	VOLUME	656324.211	4194021.621	9.47
LOCATION L0011561	VOLUME	656324.126	4194023.448	9.47
LOCATION L0011562	VOLUME	656324.042	4194025.274	9.47
LOCATION L0011563	VOLUME	656323.957	4194027.101	9.46
LOCATION L0011564	VOLUME	656323.872	4194028.928	9.46
LOCATION L0011565	VOLUME	656323.788	4194030.755	9.46
LOCATION L0011566	VOLUME	656323.703	4194032.582	9.46
LOCATION L0011567	VOLUME	656323.619	4194034.409	9.46
LOCATION L0011568	VOLUME	656323.534	4194036.236	9.46
LOCATION L0011569	VOLUME	656323.450	4194038.062	9.46
LOCATION L0011570	VOLUME	656323.365	4194039.889	9.46
LOCATION L0011571	VOLUME	656323.280	4194041.716	9.46
LOCATION L0011572	VOLUME	656323.196	4194043.543	9.46
LOCATION L0011573	VOLUME	656323.111	4194045.370	9.45
LOCATION L0011574	VOLUME	656323.027	4194047.197	9.45
LOCATION L0011575	VOLUME	656322.942	4194049.023	9.45
LOCATION L0011576	VOLUME	656322.857	4194050.850	9.45
LOCATION L0011577	VOLUME	656322.773	4194052.677	9.45
LOCATION L0011578	VOLUME	656322.688	4194054.504	9.45
LOCATION L0011579	VOLUME	656322.604	4194056.331	9.45
LOCATION L0011580	VOLUME	656322.519	4194058.158	9.45
LOCATION L0011581	VOLUME	656322.435	4194059.984	9.45
LOCATION L0011582	VOLUME	656322.350	4194061.811	9.45

LOCATION L0011583	VOLUME	656322.265	4194063.638	9.45
LOCATION L0011584	VOLUME	656322.181	4194065.465	9.45
LOCATION L0011585	VOLUME	656322.096	4194067.292	9.45
LOCATION L0011586	VOLUME	656322.012	4194069.119	9.45
LOCATION L0011587	VOLUME	656321.927	4194070.946	9.45
LOCATION L0011588	VOLUME	656321.843	4194072.772	9.45
LOCATION L0011589	VOLUME	656321.758	4194074.599	9.45
LOCATION L0011590	VOLUME	656321.673	4194076.426	9.45
LOCATION L0011591	VOLUME	656321.589	4194078.253	9.45
LOCATION L0011592	VOLUME	656321.504	4194080.080	9.45
LOCATION L0011593	VOLUME	656321.420	4194081.907	9.44
LOCATION L0011594	VOLUME	656321.335	4194083.733	9.44
LOCATION L0011595	VOLUME	656321.251	4194085.560	9.44
LOCATION L0011596	VOLUME	656321.166	4194087.387	9.44
LOCATION L0011597	VOLUME	656321.081	4194089.214	9.44
LOCATION L0011598	VOLUME	656320.997	4194091.041	9.44
LOCATION L0011599	VOLUME	656320.912	4194092.868	9.44
LOCATION L0011600	VOLUME	656320.828	4194094.695	9.44
LOCATION L0011601	VOLUME	656320.743	4194096.521	9.44
LOCATION L0011602	VOLUME	656320.659	4194098.348	9.44
LOCATION L0011603	VOLUME	656320.574	4194100.175	9.43
LOCATION L0011604	VOLUME	656320.489	4194102.002	9.43
LOCATION L0011605	VOLUME	656320.405	4194103.829	9.43
LOCATION L0011606	VOLUME	656320.320	4194105.656	9.43
LOCATION L0011607	VOLUME	656320.236	4194107.482	9.43
LOCATION L0011608	VOLUME	656320.151	4194109.309	9.42
LOCATION L0011609	VOLUME	656320.066	4194111.136	9.42
LOCATION L0011610	VOLUME	656319.982	4194112.963	9.42
LOCATION L0011611	VOLUME	656319.897	4194114.790	9.42
LOCATION L0011612	VOLUME	656319.813	4194116.617	9.42
LOCATION L0011613	VOLUME	656319.728	4194118.443	9.42
LOCATION L0011614	VOLUME	656319.644	4194120.270	9.42
LOCATION L0011615	VOLUME	656319.559	4194122.097	9.42
LOCATION L0011616	VOLUME	656319.474	4194123.924	9.42
LOCATION L0011617	VOLUME	656319.390	4194125.751	9.41
LOCATION L0011618	VOLUME	656319.305	4194127.578	9.41
LOCATION L0011619	VOLUME	656319.221	4194129.405	9.41
LOCATION L0011620	VOLUME	656319.136	4194131.231	9.41
LOCATION L0011621	VOLUME	656319.052	4194133.058	9.41
LOCATION L0011622	VOLUME	656318.967	4194134.885	9.41
LOCATION L0011623	VOLUME	656318.882	4194136.712	9.41
LOCATION L0011624	VOLUME	656318.798	4194138.539	9.40
LOCATION L0011625	VOLUME	656318.713	4194140.366	9.40
LOCATION L0011626	VOLUME	656318.629	4194142.192	9.40
LOCATION L0011627	VOLUME	656318.544	4194144.019	9.40
LOCATION L0011628	VOLUME	656318.460	4194145.846	9.41
LOCATION L0011629	VOLUME	656318.375	4194147.673	9.41
LOCATION L0011630	VOLUME	656318.290	4194149.500	9.41
LOCATION L0011631	VOLUME	656318.206	4194151.327	9.41
LOCATION L0011632	VOLUME	656318.121	4194153.153	9.40
LOCATION L0011633	VOLUME	656318.037	4194154.980	9.40
LOCATION L0011634	VOLUME	656317.952	4194156.807	9.40
LOCATION L0011635	VOLUME	656317.868	4194158.634	9.40
LOCATION L0011636	VOLUME	656317.783	4194160.461	9.40
LOCATION L0011637	VOLUME	656317.698	4194162.288	9.40

LOCATION L0011638	VOLUME	656317.614	4194164.115	9.40
LOCATION L0011639	VOLUME	656317.529	4194165.941	9.39
LOCATION L0011640	VOLUME	656317.445	4194167.768	9.39
LOCATION L0011641	VOLUME	656317.360	4194169.595	9.39
LOCATION L0011642	VOLUME	656317.275	4194171.422	9.39
LOCATION L0011643	VOLUME	656317.191	4194173.249	9.39
LOCATION L0011644	VOLUME	656317.106	4194175.076	9.39
LOCATION L0011645	VOLUME	656317.022	4194176.902	9.39
LOCATION L0011646	VOLUME	656316.937	4194178.729	9.38
LOCATION L0011647	VOLUME	656316.853	4194180.556	9.38
LOCATION L0011648	VOLUME	656316.768	4194182.383	9.38
LOCATION L0011649	VOLUME	656316.683	4194184.210	9.38
LOCATION L0011650	VOLUME	656316.599	4194186.037	9.38
LOCATION L0011651	VOLUME	656316.514	4194187.864	9.38
LOCATION L0011652	VOLUME	656316.430	4194189.690	9.38
LOCATION L0011653	VOLUME	656316.345	4194191.517	9.38
LOCATION L0011654	VOLUME	656316.261	4194193.344	9.37
LOCATION L0011655	VOLUME	656316.176	4194195.171	9.37
LOCATION L0011656	VOLUME	656316.091	4194196.998	9.37
LOCATION L0011657	VOLUME	656316.007	4194198.825	9.37
LOCATION L0011658	VOLUME	656315.922	4194200.651	9.36
LOCATION L0011659	VOLUME	656315.838	4194202.478	9.36
LOCATION L0011660	VOLUME	656315.753	4194204.305	9.36
LOCATION L0011661	VOLUME	656315.669	4194206.132	9.35
LOCATION L0011662	VOLUME	656315.584	4194207.959	9.35
LOCATION L0011663	VOLUME	656315.499	4194209.786	9.35
LOCATION L0011664	VOLUME	656315.415	4194211.612	9.35
LOCATION L0011665	VOLUME	656315.330	4194213.439	9.35
LOCATION L0011666	VOLUME	656315.246	4194215.266	9.34
LOCATION L0011667	VOLUME	656315.161	4194217.093	9.34
LOCATION L0011668	VOLUME	656315.076	4194218.920	9.34
LOCATION L0011669	VOLUME	656314.992	4194220.747	9.34
LOCATION L0011670	VOLUME	656314.907	4194222.574	9.34
LOCATION L0011671	VOLUME	656314.823	4194224.400	9.34
LOCATION L0011672	VOLUME	656314.738	4194226.227	9.33

** End of LINE VOLUME Source ID = SLINE7

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = SLINE8

** DESCRSRC On-site Mobile (Bldg 7)

** PREFIX

** Length of Side = 1.83

** Configuration = Adjacent

** Emission Rate = 1.0

** Vertical Dimension = 3.66

** SZINIT = 1.70

** Nodes = 2

** 656157.434, 4193993.921, 9.22, 3.66, 0.85

** 656159.503, 4193869.788, 9.16, 3.66, 0.85

** -----

LOCATION L0011673	VOLUME	656157.449	4193993.007	9.23
LOCATION L0011674	VOLUME	656157.479	4193991.178	9.23
LOCATION L0011675	VOLUME	656157.510	4193989.350	9.22
LOCATION L0011676	VOLUME	656157.540	4193987.521	9.22
LOCATION L0011677	VOLUME	656157.571	4193985.693	9.22

LOCATION L0011678	VOLUME	656157.601	4193983.864	9.22
LOCATION L0011679	VOLUME	656157.632	4193982.036	9.22
LOCATION L0011680	VOLUME	656157.662	4193980.207	9.22
LOCATION L0011681	VOLUME	656157.693	4193978.379	9.22
LOCATION L0011682	VOLUME	656157.723	4193976.550	9.22
LOCATION L0011683	VOLUME	656157.754	4193974.722	9.22
LOCATION L0011684	VOLUME	656157.784	4193972.893	9.22
LOCATION L0011685	VOLUME	656157.815	4193971.064	9.22
LOCATION L0011686	VOLUME	656157.845	4193969.236	9.22
LOCATION L0011687	VOLUME	656157.876	4193967.407	9.22
LOCATION L0011688	VOLUME	656157.906	4193965.579	9.22
LOCATION L0011689	VOLUME	656157.937	4193963.750	9.22
LOCATION L0011690	VOLUME	656157.967	4193961.922	9.22
LOCATION L0011691	VOLUME	656157.998	4193960.093	9.22
LOCATION L0011692	VOLUME	656158.028	4193958.265	9.21
LOCATION L0011693	VOLUME	656158.058	4193956.436	9.21
LOCATION L0011694	VOLUME	656158.089	4193954.608	9.21
LOCATION L0011695	VOLUME	656158.119	4193952.779	9.21
LOCATION L0011696	VOLUME	656158.150	4193950.950	9.21
LOCATION L0011697	VOLUME	656158.180	4193949.122	9.21
LOCATION L0011698	VOLUME	656158.211	4193947.293	9.21
LOCATION L0011699	VOLUME	656158.241	4193945.465	9.21
LOCATION L0011700	VOLUME	656158.272	4193943.636	9.21
LOCATION L0011701	VOLUME	656158.302	4193941.808	9.21
LOCATION L0011702	VOLUME	656158.333	4193939.979	9.21
LOCATION L0011703	VOLUME	656158.363	4193938.151	9.21
LOCATION L0011704	VOLUME	656158.394	4193936.322	9.20
LOCATION L0011705	VOLUME	656158.424	4193934.494	9.20
LOCATION L0011706	VOLUME	656158.455	4193932.665	9.20
LOCATION L0011707	VOLUME	656158.485	4193930.836	9.20
LOCATION L0011708	VOLUME	656158.516	4193929.008	9.20
LOCATION L0011709	VOLUME	656158.546	4193927.179	9.20
LOCATION L0011710	VOLUME	656158.577	4193925.351	9.20
LOCATION L0011711	VOLUME	656158.607	4193923.522	9.20
LOCATION L0011712	VOLUME	656158.637	4193921.694	9.20
LOCATION L0011713	VOLUME	656158.668	4193919.865	9.20
LOCATION L0011714	VOLUME	656158.698	4193918.037	9.20
LOCATION L0011715	VOLUME	656158.729	4193916.208	9.19
LOCATION L0011716	VOLUME	656158.759	4193914.380	9.19
LOCATION L0011717	VOLUME	656158.790	4193912.551	9.19
LOCATION L0011718	VOLUME	656158.820	4193910.722	9.19
LOCATION L0011719	VOLUME	656158.851	4193908.894	9.19
LOCATION L0011720	VOLUME	656158.881	4193907.065	9.19
LOCATION L0011721	VOLUME	656158.912	4193905.237	9.19
LOCATION L0011722	VOLUME	656158.942	4193903.408	9.19
LOCATION L0011723	VOLUME	656158.973	4193901.580	9.19
LOCATION L0011724	VOLUME	656159.003	4193899.751	9.19
LOCATION L0011725	VOLUME	656159.034	4193897.923	9.19
LOCATION L0011726	VOLUME	656159.064	4193896.094	9.18
LOCATION L0011727	VOLUME	656159.095	4193894.266	9.18
LOCATION L0011728	VOLUME	656159.125	4193892.437	9.18
LOCATION L0011729	VOLUME	656159.156	4193890.608	9.18
LOCATION L0011730	VOLUME	656159.186	4193888.780	9.18
LOCATION L0011731	VOLUME	656159.217	4193886.951	9.18
LOCATION L0011732	VOLUME	656159.247	4193885.123	9.18

LOCATION L0011733	VOLUME	656159.277	4193883.294	9.18
LOCATION L0011734	VOLUME	656159.308	4193881.466	9.17
LOCATION L0011735	VOLUME	656159.338	4193879.637	9.17
LOCATION L0011736	VOLUME	656159.369	4193877.809	9.17
LOCATION L0011737	VOLUME	656159.399	4193875.980	9.17
LOCATION L0011738	VOLUME	656159.430	4193874.152	9.17
LOCATION L0011739	VOLUME	656159.460	4193872.323	9.17
LOCATION L0011740	VOLUME	656159.491	4193870.494	9.17

** End of LINE VOLUME Source ID = SLINE8

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = SLINE9

** DESCRSRC On-site Mobile (Bldg 8)

** PREFIX

** Length of Side = 1.83

** Configuration = Adjacent

** Emission Rate = 1.0

** Vertical Dimension = 3.66

** SZINIT = 1.70

** Nodes = 2

** 655847.099, 4193989.783, 8.71, 3.66, 0.85

** 655849.168, 4193878.063, 8.69, 3.66, 0.85

** -----

LOCATION L0011741	VOLUME	655847.116	4193988.869	8.72
LOCATION L0011742	VOLUME	655847.150	4193987.041	8.72
LOCATION L0011743	VOLUME	655847.184	4193985.212	8.72
LOCATION L0011744	VOLUME	655847.218	4193983.384	8.72
LOCATION L0011745	VOLUME	655847.252	4193981.555	8.72
LOCATION L0011746	VOLUME	655847.286	4193979.727	8.72
LOCATION L0011747	VOLUME	655847.320	4193977.898	8.72
LOCATION L0011748	VOLUME	655847.353	4193976.070	8.72
LOCATION L0011749	VOLUME	655847.387	4193974.241	8.72
LOCATION L0011750	VOLUME	655847.421	4193972.413	8.72
LOCATION L0011751	VOLUME	655847.455	4193970.584	8.72
LOCATION L0011752	VOLUME	655847.489	4193968.756	8.71
LOCATION L0011753	VOLUME	655847.523	4193966.927	8.71
LOCATION L0011754	VOLUME	655847.557	4193965.099	8.71
LOCATION L0011755	VOLUME	655847.590	4193963.270	8.71
LOCATION L0011756	VOLUME	655847.624	4193961.442	8.71
LOCATION L0011757	VOLUME	655847.658	4193959.613	8.71
LOCATION L0011758	VOLUME	655847.692	4193957.785	8.71
LOCATION L0011759	VOLUME	655847.726	4193955.956	8.71
LOCATION L0011760	VOLUME	655847.760	4193954.128	8.71
LOCATION L0011761	VOLUME	655847.794	4193952.300	8.71
LOCATION L0011762	VOLUME	655847.827	4193950.471	8.71
LOCATION L0011763	VOLUME	655847.861	4193948.643	8.71
LOCATION L0011764	VOLUME	655847.895	4193946.814	8.71
LOCATION L0011765	VOLUME	655847.929	4193944.986	8.71
LOCATION L0011766	VOLUME	655847.963	4193943.157	8.71
LOCATION L0011767	VOLUME	655847.997	4193941.329	8.71
LOCATION L0011768	VOLUME	655848.031	4193939.500	8.71
LOCATION L0011769	VOLUME	655848.065	4193937.672	8.71
LOCATION L0011770	VOLUME	655848.098	4193935.843	8.71
LOCATION L0011771	VOLUME	655848.132	4193934.015	8.71
LOCATION L0011772	VOLUME	655848.166	4193932.186	8.71

LOCATION L0011773	VOLUME	655848.200	4193930.358	8.71
LOCATION L0011774	VOLUME	655848.234	4193928.529	8.71
LOCATION L0011775	VOLUME	655848.268	4193926.701	8.70
LOCATION L0011776	VOLUME	655848.302	4193924.872	8.70
LOCATION L0011777	VOLUME	655848.335	4193923.044	8.70
LOCATION L0011778	VOLUME	655848.369	4193921.215	8.70
LOCATION L0011779	VOLUME	655848.403	4193919.387	8.70
LOCATION L0011780	VOLUME	655848.437	4193917.558	8.70
LOCATION L0011781	VOLUME	655848.471	4193915.730	8.70
LOCATION L0011782	VOLUME	655848.505	4193913.901	8.70
LOCATION L0011783	VOLUME	655848.539	4193912.073	8.70
LOCATION L0011784	VOLUME	655848.572	4193910.244	8.70
LOCATION L0011785	VOLUME	655848.606	4193908.416	8.70
LOCATION L0011786	VOLUME	655848.640	4193906.587	8.70
LOCATION L0011787	VOLUME	655848.674	4193904.759	8.70
LOCATION L0011788	VOLUME	655848.708	4193902.930	8.70
LOCATION L0011789	VOLUME	655848.742	4193901.102	8.70
LOCATION L0011790	VOLUME	655848.776	4193899.273	8.70
LOCATION L0011791	VOLUME	655848.809	4193897.445	8.70
LOCATION L0011792	VOLUME	655848.843	4193895.616	8.69
LOCATION L0011793	VOLUME	655848.877	4193893.788	8.69
LOCATION L0011794	VOLUME	655848.911	4193891.959	8.69
LOCATION L0011795	VOLUME	655848.945	4193890.131	8.69
LOCATION L0011796	VOLUME	655848.979	4193888.302	8.69
LOCATION L0011797	VOLUME	655849.013	4193886.474	8.69
LOCATION L0011798	VOLUME	655849.046	4193884.646	8.69
LOCATION L0011799	VOLUME	655849.080	4193882.817	8.69
LOCATION L0011800	VOLUME	655849.114	4193880.989	8.69
LOCATION L0011801	VOLUME	655849.148	4193879.160	8.69

** End of LINE VOLUME Source ID = SLINE9

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = SLINE10

** DESCRSRC On-site Mobile (Bldg 9)

** PREFIX

** Length of Side = 1.83

** Configuration = Adjacent

** Emission Rate = 1.0

** Vertical Dimension = 3.66

** SZINIT = 1.70

** Nodes = 2

** 655561.592, 4193981.508, 8.28, 3.66, 0.85

** 655561.592, 4193880.132, 8.22, 3.66, 0.85

** -----

LOCATION L0011802	VOLUME	655561.592	4193980.594	8.27
LOCATION L0011803	VOLUME	655561.592	4193978.765	8.27
LOCATION L0011804	VOLUME	655561.592	4193976.936	8.27
LOCATION L0011805	VOLUME	655561.592	4193975.107	8.27
LOCATION L0011806	VOLUME	655561.592	4193973.278	8.27
LOCATION L0011807	VOLUME	655561.592	4193971.450	8.27
LOCATION L0011808	VOLUME	655561.592	4193969.621	8.27
LOCATION L0011809	VOLUME	655561.592	4193967.792	8.27
LOCATION L0011810	VOLUME	655561.592	4193965.963	8.27
LOCATION L0011811	VOLUME	655561.592	4193964.134	8.27
LOCATION L0011812	VOLUME	655561.592	4193962.306	8.26

LOCATION L0011813	VOLUME	655561.592	4193960.477	8.26
LOCATION L0011814	VOLUME	655561.592	4193958.648	8.26
LOCATION L0011815	VOLUME	655561.592	4193956.819	8.26
LOCATION L0011816	VOLUME	655561.592	4193954.990	8.26
LOCATION L0011817	VOLUME	655561.592	4193953.162	8.26
LOCATION L0011818	VOLUME	655561.592	4193951.333	8.26
LOCATION L0011819	VOLUME	655561.592	4193949.504	8.26
LOCATION L0011820	VOLUME	655561.592	4193947.675	8.26
LOCATION L0011821	VOLUME	655561.592	4193945.846	8.26
LOCATION L0011822	VOLUME	655561.592	4193944.018	8.26
LOCATION L0011823	VOLUME	655561.592	4193942.189	8.25
LOCATION L0011824	VOLUME	655561.592	4193940.360	8.25
LOCATION L0011825	VOLUME	655561.592	4193938.531	8.25
LOCATION L0011826	VOLUME	655561.592	4193936.702	8.25
LOCATION L0011827	VOLUME	655561.592	4193934.874	8.25
LOCATION L0011828	VOLUME	655561.592	4193933.045	8.25
LOCATION L0011829	VOLUME	655561.592	4193931.216	8.25
LOCATION L0011830	VOLUME	655561.592	4193929.387	8.24
LOCATION L0011831	VOLUME	655561.592	4193927.558	8.24
LOCATION L0011832	VOLUME	655561.592	4193925.730	8.24
LOCATION L0011833	VOLUME	655561.592	4193923.901	8.24
LOCATION L0011834	VOLUME	655561.592	4193922.072	8.24
LOCATION L0011835	VOLUME	655561.592	4193920.243	8.24
LOCATION L0011836	VOLUME	655561.592	4193918.414	8.24
LOCATION L0011837	VOLUME	655561.592	4193916.586	8.24
LOCATION L0011838	VOLUME	655561.592	4193914.757	8.24
LOCATION L0011839	VOLUME	655561.592	4193912.928	8.24
LOCATION L0011840	VOLUME	655561.592	4193911.099	8.24
LOCATION L0011841	VOLUME	655561.592	4193909.270	8.23
LOCATION L0011842	VOLUME	655561.592	4193907.442	8.23
LOCATION L0011843	VOLUME	655561.592	4193905.613	8.23
LOCATION L0011844	VOLUME	655561.592	4193903.784	8.23
LOCATION L0011845	VOLUME	655561.592	4193901.955	8.23
LOCATION L0011846	VOLUME	655561.592	4193900.126	8.23
LOCATION L0011847	VOLUME	655561.592	4193898.298	8.23
LOCATION L0011848	VOLUME	655561.592	4193896.469	8.23
LOCATION L0011849	VOLUME	655561.592	4193894.640	8.23
LOCATION L0011850	VOLUME	655561.592	4193892.811	8.23
LOCATION L0011851	VOLUME	655561.592	4193890.982	8.22
LOCATION L0011852	VOLUME	655561.592	4193889.154	8.22
LOCATION L0011853	VOLUME	655561.592	4193887.325	8.22
LOCATION L0011854	VOLUME	655561.592	4193885.496	8.22
LOCATION L0011855	VOLUME	655561.592	4193883.667	8.22
LOCATION L0011856	VOLUME	655561.592	4193881.838	8.21

** End of LINE VOLUME Source ID = SLINE10

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = SLINE11

** DESCRSRC On-site Mobile (Bldg 10)

** PREFIX

** Length of Side = 1.83

** Configuration = Adjacent

** Emission Rate = 1.0

** Vertical Dimension = 3.66

** SZINIT = 1.70

** Nodes = 2

** 655176.778, 4193975.301, 7.42, 3.66, 0.85

** 655176.778, 4193882.201, 7.21, 3.66, 0.85

** -----

LOCATION L0011857	VOLUME	655176.778	4193974.387	7.42
LOCATION L0011858	VOLUME	655176.778	4193972.558	7.42
LOCATION L0011859	VOLUME	655176.778	4193970.729	7.41
LOCATION L0011860	VOLUME	655176.778	4193968.900	7.41
LOCATION L0011861	VOLUME	655176.778	4193967.072	7.41
LOCATION L0011862	VOLUME	655176.778	4193965.243	7.40
LOCATION L0011863	VOLUME	655176.778	4193963.414	7.40
LOCATION L0011864	VOLUME	655176.778	4193961.585	7.40
LOCATION L0011865	VOLUME	655176.778	4193959.756	7.39
LOCATION L0011866	VOLUME	655176.778	4193957.928	7.39
LOCATION L0011867	VOLUME	655176.778	4193956.099	7.38
LOCATION L0011868	VOLUME	655176.778	4193954.270	7.38
LOCATION L0011869	VOLUME	655176.778	4193952.441	7.38
LOCATION L0011870	VOLUME	655176.778	4193950.612	7.37
LOCATION L0011871	VOLUME	655176.778	4193948.784	7.37
LOCATION L0011872	VOLUME	655176.778	4193946.955	7.36
LOCATION L0011873	VOLUME	655176.778	4193945.126	7.36
LOCATION L0011874	VOLUME	655176.778	4193943.297	7.36
LOCATION L0011875	VOLUME	655176.778	4193941.468	7.35
LOCATION L0011876	VOLUME	655176.778	4193939.640	7.35
LOCATION L0011877	VOLUME	655176.778	4193937.811	7.34
LOCATION L0011878	VOLUME	655176.778	4193935.982	7.34
LOCATION L0011879	VOLUME	655176.778	4193934.153	7.34
LOCATION L0011880	VOLUME	655176.778	4193932.324	7.33
LOCATION L0011881	VOLUME	655176.778	4193930.496	7.33
LOCATION L0011882	VOLUME	655176.778	4193928.667	7.32
LOCATION L0011883	VOLUME	655176.778	4193926.838	7.32
LOCATION L0011884	VOLUME	655176.778	4193925.009	7.31
LOCATION L0011885	VOLUME	655176.778	4193923.180	7.30
LOCATION L0011886	VOLUME	655176.778	4193921.352	7.30
LOCATION L0011887	VOLUME	655176.778	4193919.523	7.30
LOCATION L0011888	VOLUME	655176.778	4193917.694	7.29
LOCATION L0011889	VOLUME	655176.778	4193915.865	7.29
LOCATION L0011890	VOLUME	655176.778	4193914.036	7.28
LOCATION L0011891	VOLUME	655176.778	4193912.208	7.28
LOCATION L0011892	VOLUME	655176.778	4193910.379	7.28
LOCATION L0011893	VOLUME	655176.778	4193908.550	7.27
LOCATION L0011894	VOLUME	655176.778	4193906.721	7.27
LOCATION L0011895	VOLUME	655176.778	4193904.892	7.27
LOCATION L0011896	VOLUME	655176.778	4193903.064	7.26
LOCATION L0011897	VOLUME	655176.778	4193901.235	7.26
LOCATION L0011898	VOLUME	655176.778	4193899.406	7.26
LOCATION L0011899	VOLUME	655176.778	4193897.577	7.25
LOCATION L0011900	VOLUME	655176.778	4193895.748	7.25
LOCATION L0011901	VOLUME	655176.778	4193893.920	7.24
LOCATION L0011902	VOLUME	655176.778	4193892.091	7.24
LOCATION L0011903	VOLUME	655176.778	4193890.262	7.23
LOCATION L0011904	VOLUME	655176.778	4193888.433	7.23
LOCATION L0011905	VOLUME	655176.778	4193886.604	7.23
LOCATION L0011906	VOLUME	655176.778	4193884.776	7.22
LOCATION L0011907	VOLUME	655176.778	4193882.947	7.22

```

** End of LINE VOLUME Source ID = SLINE11
LOCATION STCK1    POINT    654520.930  4194293.910    7.590
** DESCRSRC Truck Idle 1 (Bldg 1)
LOCATION STCK15   POINT    654520.930  4194293.910    7.590
** DESCRSRC TRU Idle 1 (Bldg 1)
LOCATION STCK2    POINT    654609.890  4194184.260    7.540
** DESCRSRC Truck Idle 2 (Bldg 1)
LOCATION STCK16   POINT    654609.890  4194184.260    7.540
** DESCRSRC TRU Idle 2 (Bldg 1)
LOCATION STCK3    POINT    654835.410  4194415.980    7.680
** DESCRSRC Truck Idle 3 (Bldg 2)
LOCATION STCK17   POINT    654835.410  4194415.980    7.680
** DESCRSRC TRU Idle 3 (Bldg 2)
LOCATION STCK4    POINT    654920.230  4194252.530    7.500
** DESCRSRC Truck Idle 4 (Bldg 2)
LOCATION STCK18   POINT    654920.230  4194252.530    7.500
** DESCRSRC TRU Idle 4 (Bldg 2)
LOCATION STCK5    POINT    655139.540  4194449.080    7.920
** DESCRSRC Truck Idle 5 (Bldg 3)
LOCATION STCK19   POINT    655139.540  4194449.080    7.920
** DESCRSRC TRU Idle 5 (Bldg 3)
LOCATION STCK6    POINT    655259.530  4194277.360    7.960
** DESCRSRC Truck Idle 6 (Bldg 3)
LOCATION STCK20   POINT    655259.530  4194277.360    7.960
** DESCRSRC TRU Idle 6 (Bldg 3)
LOCATION STCK7    POINT    655476.770  4194571.150    8.380
** DESCRSRC Truck Idle 7 (Bldg 4)
LOCATION STCK21   POINT    655476.770  4194571.150    8.380
** DESCRSRC TRU Idle 7 (Bldg 4)
LOCATION STCK8    POINT    655582.280  4194298.050    8.450
** DESCRSRC Truck Idle 8 (Bldg 4)
LOCATION STCK22   POINT    655582.280  4194298.050    8.450
** DESCRSRC TRU Idle 8 (Bldg 4)
LOCATION STCK9    POINT    655998.130  4194151.160    9.010
** DESCRSRC Truck Idle 9 (Bldg 5)
LOCATION STCK23   POINT    655998.130  4194151.160    9.010
** DESCRSRC TRU Idle 9 (Bldg 5)
LOCATION STCK10   POINT    656316.740  4194128.400    9.410
** DESCRSRC Truck Idle 10 (Bldg 6)
LOCATION STCK24   POINT    656316.740  4194128.400    9.410
** DESCRSRC TRU Idle 10 (Bldg 6)
LOCATION STCK11   POINT    656161.580  4193909.100    9.200
** DESCRSRC Truck Idle 11 (Bldg 7)
LOCATION STCK25   POINT    656161.580  4193909.100    9.200
** DESCRSRC TRU Idle 11 (Bldg 7)
LOCATION STCK12   POINT    655847.100  4193925.650    8.700
** DESCRSRC Truck Idle 12 (Bldg 8)
LOCATION STCK26   POINT    655847.100  4193925.650    8.700
** DESCRSRC TRU Idle 12 (Bldg 8)
LOCATION STCK13   POINT    655559.520  4193921.510    8.230
** DESCRSRC Truck Idle 13 (Bldg 9)
LOCATION STCK27   POINT    655559.520  4193921.510    8.230
** DESCRSRC TRU Idle 13 (Bldg 9)
LOCATION STCK14   POINT    655176.780  4193917.370    7.290
** DESCRSRC Truck Idle 14 (Bldg 10)

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LOCATION STCK28 POINT 655176.780 4193917.370 7.290
 ** DESCRSRC TRU Idle 14 (Bldg 10)
 ** -----
 ** Line Source Represented by Adjacent Volume Sources
 ** LINE VOLUME Source ID = SLINE12
 ** DESCRSRC On-site Mobile (Route between Airport Way to Commerce Drive)
 ** PREFIX
 ** Length of Side = 1.83
 ** Configuration = Adjacent
 ** Emission Rate = 1.0
 ** Vertical Dimension = 3.66
 ** SZINIT = 1.70
 ** Nodes = 2
 ** 654431.647, 4193965.048, 8.28, 3.66, 0.85
 ** 654009.581, 4194117.947, 8.27, 3.66, 0.85
 ** -----

LOCATION L0011908	VOLUME	654430.787 4193965.359 8.28
LOCATION L0011909	VOLUME	654429.067 4193965.982 8.28
LOCATION L0011910	VOLUME	654427.348 4193966.605 8.28
LOCATION L0011911	VOLUME	654425.629 4193967.228 8.28
LOCATION L0011912	VOLUME	654423.909 4193967.851 8.27
LOCATION L0011913	VOLUME	654422.190 4193968.474 8.27
LOCATION L0011914	VOLUME	654420.470 4193969.097 8.26
LOCATION L0011915	VOLUME	654418.751 4193969.720 8.26
LOCATION L0011916	VOLUME	654417.031 4193970.342 8.25
LOCATION L0011917	VOLUME	654415.312 4193970.965 8.23
LOCATION L0011918	VOLUME	654413.592 4193971.588 8.22
LOCATION L0011919	VOLUME	654411.873 4193972.211 8.21
LOCATION L0011920	VOLUME	654410.154 4193972.834 8.20
LOCATION L0011921	VOLUME	654408.434 4193973.457 8.20
LOCATION L0011922	VOLUME	654406.715 4193974.080 8.19
LOCATION L0011923	VOLUME	654404.995 4193974.703 8.18
LOCATION L0011924	VOLUME	654403.276 4193975.326 8.17
LOCATION L0011925	VOLUME	654401.556 4193975.948 8.16
LOCATION L0011926	VOLUME	654399.837 4193976.571 8.15
LOCATION L0011927	VOLUME	654398.117 4193977.194 8.14
LOCATION L0011928	VOLUME	654396.398 4193977.817 8.13
LOCATION L0011929	VOLUME	654394.678 4193978.440 8.13
LOCATION L0011930	VOLUME	654392.959 4193979.063 8.12
LOCATION L0011931	VOLUME	654391.240 4193979.686 8.11
LOCATION L0011932	VOLUME	654389.520 4193980.309 8.11
LOCATION L0011933	VOLUME	654387.801 4193980.932 8.10
LOCATION L0011934	VOLUME	654386.081 4193981.555 8.09
LOCATION L0011935	VOLUME	654384.362 4193982.177 8.08
LOCATION L0011936	VOLUME	654382.642 4193982.800 8.08
LOCATION L0011937	VOLUME	654380.923 4193983.423 8.07
LOCATION L0011938	VOLUME	654379.203 4193984.046 8.06
LOCATION L0011939	VOLUME	654377.484 4193984.669 8.06
LOCATION L0011940	VOLUME	654375.765 4193985.292 8.05
LOCATION L0011941	VOLUME	654374.045 4193985.915 8.04
LOCATION L0011942	VOLUME	654372.326 4193986.538 8.04
LOCATION L0011943	VOLUME	654370.606 4193987.161 8.03
LOCATION L0011944	VOLUME	654368.887 4193987.783 8.03
LOCATION L0011945	VOLUME	654367.167 4193988.406 8.02
LOCATION L0011946	VOLUME	654365.448 4193989.029 8.02

LOCATION L0011947	VOLUME	654363.728	4193989.652	8.01
LOCATION L0011948	VOLUME	654362.009	4193990.275	8.01
LOCATION L0011949	VOLUME	654360.289	4193990.898	8.00
LOCATION L0011950	VOLUME	654358.570	4193991.521	7.99
LOCATION L0011951	VOLUME	654356.851	4193992.144	7.99
LOCATION L0011952	VOLUME	654355.131	4193992.767	7.98
LOCATION L0011953	VOLUME	654353.412	4193993.390	7.98
LOCATION L0011954	VOLUME	654351.692	4193994.012	7.97
LOCATION L0011955	VOLUME	654349.973	4193994.635	7.96
LOCATION L0011956	VOLUME	654348.253	4193995.258	7.96
LOCATION L0011957	VOLUME	654346.534	4193995.881	7.95
LOCATION L0011958	VOLUME	654344.814	4193996.504	7.94
LOCATION L0011959	VOLUME	654343.095	4193997.127	7.94
LOCATION L0011960	VOLUME	654341.375	4193997.750	7.93
LOCATION L0011961	VOLUME	654339.656	4193998.373	7.93
LOCATION L0011962	VOLUME	654337.937	4193998.996	7.92
LOCATION L0011963	VOLUME	654336.217	4193999.619	7.91
LOCATION L0011964	VOLUME	654334.498	4194000.241	7.91
LOCATION L0011965	VOLUME	654332.778	4194000.864	7.91
LOCATION L0011966	VOLUME	654331.059	4194001.487	7.90
LOCATION L0011967	VOLUME	654329.339	4194002.110	7.90
LOCATION L0011968	VOLUME	654327.620	4194002.733	7.89
LOCATION L0011969	VOLUME	654325.900	4194003.356	7.89
LOCATION L0011970	VOLUME	654324.181	4194003.979	7.89
LOCATION L0011971	VOLUME	654322.462	4194004.602	7.89
LOCATION L0011972	VOLUME	654320.742	4194005.225	7.89
LOCATION L0011973	VOLUME	654319.023	4194005.847	7.89
LOCATION L0011974	VOLUME	654317.303	4194006.470	7.88
LOCATION L0011975	VOLUME	654315.584	4194007.093	7.88
LOCATION L0011976	VOLUME	654313.864	4194007.716	7.88
LOCATION L0011977	VOLUME	654312.145	4194008.339	7.88
LOCATION L0011978	VOLUME	654310.425	4194008.962	7.88
LOCATION L0011979	VOLUME	654308.706	4194009.585	7.87
LOCATION L0011980	VOLUME	654306.986	4194010.208	7.87
LOCATION L0011981	VOLUME	654305.267	4194010.831	7.86
LOCATION L0011982	VOLUME	654303.548	4194011.454	7.86
LOCATION L0011983	VOLUME	654301.828	4194012.076	7.85
LOCATION L0011984	VOLUME	654300.109	4194012.699	7.85
LOCATION L0011985	VOLUME	654298.389	4194013.322	7.84
LOCATION L0011986	VOLUME	654296.670	4194013.945	7.84
LOCATION L0011987	VOLUME	654294.950	4194014.568	7.83
LOCATION L0011988	VOLUME	654293.231	4194015.191	7.83
LOCATION L0011989	VOLUME	654291.511	4194015.814	7.82
LOCATION L0011990	VOLUME	654289.792	4194016.437	7.82
LOCATION L0011991	VOLUME	654288.073	4194017.060	7.81
LOCATION L0011992	VOLUME	654286.353	4194017.682	7.81
LOCATION L0011993	VOLUME	654284.634	4194018.305	7.80
LOCATION L0011994	VOLUME	654282.914	4194018.928	7.80
LOCATION L0011995	VOLUME	654281.195	4194019.551	7.80
LOCATION L0011996	VOLUME	654279.475	4194020.174	7.79
LOCATION L0011997	VOLUME	654277.756	4194020.797	7.79
LOCATION L0011998	VOLUME	654276.036	4194021.420	7.78
LOCATION L0011999	VOLUME	654274.317	4194022.043	7.78
LOCATION L0012000	VOLUME	654272.597	4194022.666	7.77
LOCATION L0012001	VOLUME	654270.878	4194023.289	7.77

LOCATION L0012002	VOLUME	654269.159	4194023.911	7.76
LOCATION L0012003	VOLUME	654267.439	4194024.534	7.76
LOCATION L0012004	VOLUME	654265.720	4194025.157	7.75
LOCATION L0012005	VOLUME	654264.000	4194025.780	7.75
LOCATION L0012006	VOLUME	654262.281	4194026.403	7.74
LOCATION L0012007	VOLUME	654260.561	4194027.026	7.74
LOCATION L0012008	VOLUME	654258.842	4194027.649	7.73
LOCATION L0012009	VOLUME	654257.122	4194028.272	7.73
LOCATION L0012010	VOLUME	654255.403	4194028.895	7.72
LOCATION L0012011	VOLUME	654253.684	4194029.517	7.71
LOCATION L0012012	VOLUME	654251.964	4194030.140	7.71
LOCATION L0012013	VOLUME	654250.245	4194030.763	7.70
LOCATION L0012014	VOLUME	654248.525	4194031.386	7.69
LOCATION L0012015	VOLUME	654246.806	4194032.009	7.68
LOCATION L0012016	VOLUME	654245.086	4194032.632	7.67
LOCATION L0012017	VOLUME	654243.367	4194033.255	7.67
LOCATION L0012018	VOLUME	654241.647	4194033.878	7.66
LOCATION L0012019	VOLUME	654239.928	4194034.501	7.65
LOCATION L0012020	VOLUME	654238.208	4194035.124	7.64
LOCATION L0012021	VOLUME	654236.489	4194035.746	7.64
LOCATION L0012022	VOLUME	654234.770	4194036.369	7.63
LOCATION L0012023	VOLUME	654233.050	4194036.992	7.62
LOCATION L0012024	VOLUME	654231.331	4194037.615	7.62
LOCATION L0012025	VOLUME	654229.611	4194038.238	7.61
LOCATION L0012026	VOLUME	654227.892	4194038.861	7.60
LOCATION L0012027	VOLUME	654226.172	4194039.484	7.60
LOCATION L0012028	VOLUME	654224.453	4194040.107	7.59
LOCATION L0012029	VOLUME	654222.733	4194040.730	7.58
LOCATION L0012030	VOLUME	654221.014	4194041.353	7.57
LOCATION L0012031	VOLUME	654219.294	4194041.975	7.57
LOCATION L0012032	VOLUME	654217.575	4194042.598	7.56
LOCATION L0012033	VOLUME	654215.856	4194043.221	7.55
LOCATION L0012034	VOLUME	654214.136	4194043.844	7.54
LOCATION L0012035	VOLUME	654212.417	4194044.467	7.53
LOCATION L0012036	VOLUME	654210.697	4194045.090	7.53
LOCATION L0012037	VOLUME	654208.978	4194045.713	7.52
LOCATION L0012038	VOLUME	654207.258	4194046.336	7.51
LOCATION L0012039	VOLUME	654205.539	4194046.959	7.50
LOCATION L0012040	VOLUME	654203.819	4194047.581	7.49
LOCATION L0012041	VOLUME	654202.100	4194048.204	7.48
LOCATION L0012042	VOLUME	654200.381	4194048.827	7.47
LOCATION L0012043	VOLUME	654198.661	4194049.450	7.46
LOCATION L0012044	VOLUME	654196.942	4194050.073	7.45
LOCATION L0012045	VOLUME	654195.222	4194050.696	7.44
LOCATION L0012046	VOLUME	654193.503	4194051.319	7.44
LOCATION L0012047	VOLUME	654191.783	4194051.942	7.43
LOCATION L0012048	VOLUME	654190.064	4194052.565	7.42
LOCATION L0012049	VOLUME	654188.344	4194053.188	7.41
LOCATION L0012050	VOLUME	654186.625	4194053.810	7.41
LOCATION L0012051	VOLUME	654184.905	4194054.433	7.40
LOCATION L0012052	VOLUME	654183.186	4194055.056	7.39
LOCATION L0012053	VOLUME	654181.467	4194055.679	7.38
LOCATION L0012054	VOLUME	654179.747	4194056.302	7.38
LOCATION L0012055	VOLUME	654178.028	4194056.925	7.37
LOCATION L0012056	VOLUME	654176.308	4194057.548	7.37

LOCATION L0012057	VOLUME	654174.589	4194058.171	7.36
LOCATION L0012058	VOLUME	654172.869	4194058.794	7.35
LOCATION L0012059	VOLUME	654171.150	4194059.416	7.35
LOCATION L0012060	VOLUME	654169.430	4194060.039	7.35
LOCATION L0012061	VOLUME	654167.711	4194060.662	7.34
LOCATION L0012062	VOLUME	654165.992	4194061.285	7.34
LOCATION L0012063	VOLUME	654164.272	4194061.908	7.34
LOCATION L0012064	VOLUME	654162.553	4194062.531	7.34
LOCATION L0012065	VOLUME	654160.833	4194063.154	7.33
LOCATION L0012066	VOLUME	654159.114	4194063.777	7.33
LOCATION L0012067	VOLUME	654157.394	4194064.400	7.33
LOCATION L0012068	VOLUME	654155.675	4194065.023	7.33
LOCATION L0012069	VOLUME	654153.955	4194065.645	7.33
LOCATION L0012070	VOLUME	654152.236	4194066.268	7.32
LOCATION L0012071	VOLUME	654150.516	4194066.891	7.32
LOCATION L0012072	VOLUME	654148.797	4194067.514	7.32
LOCATION L0012073	VOLUME	654147.078	4194068.137	7.32
LOCATION L0012074	VOLUME	654145.358	4194068.760	7.32
LOCATION L0012075	VOLUME	654143.639	4194069.383	7.32
LOCATION L0012076	VOLUME	654141.919	4194070.006	7.32
LOCATION L0012077	VOLUME	654140.200	4194070.629	7.32
LOCATION L0012078	VOLUME	654138.480	4194071.251	7.32
LOCATION L0012079	VOLUME	654136.761	4194071.874	7.32
LOCATION L0012080	VOLUME	654135.041	4194072.497	7.32
LOCATION L0012081	VOLUME	654133.322	4194073.120	7.32
LOCATION L0012082	VOLUME	654131.603	4194073.743	7.32
LOCATION L0012083	VOLUME	654129.883	4194074.366	7.32
LOCATION L0012084	VOLUME	654128.164	4194074.989	7.33
LOCATION L0012085	VOLUME	654126.444	4194075.612	7.33
LOCATION L0012086	VOLUME	654124.725	4194076.235	7.33
LOCATION L0012087	VOLUME	654123.005	4194076.858	7.33
LOCATION L0012088	VOLUME	654121.286	4194077.480	7.33
LOCATION L0012089	VOLUME	654119.566	4194078.103	7.34
LOCATION L0012090	VOLUME	654117.847	4194078.726	7.35
LOCATION L0012091	VOLUME	654116.127	4194079.349	7.35
LOCATION L0012092	VOLUME	654114.408	4194079.972	7.36
LOCATION L0012093	VOLUME	654112.689	4194080.595	7.36
LOCATION L0012094	VOLUME	654110.969	4194081.218	7.37
LOCATION L0012095	VOLUME	654109.250	4194081.841	7.37
LOCATION L0012096	VOLUME	654107.530	4194082.464	7.37
LOCATION L0012097	VOLUME	654105.811	4194083.086	7.38
LOCATION L0012098	VOLUME	654104.091	4194083.709	7.38
LOCATION L0012099	VOLUME	654102.372	4194084.332	7.39
LOCATION L0012100	VOLUME	654100.652	4194084.955	7.39
LOCATION L0012101	VOLUME	654098.933	4194085.578	7.40
LOCATION L0012102	VOLUME	654097.213	4194086.201	7.41
LOCATION L0012103	VOLUME	654095.494	4194086.824	7.41
LOCATION L0012104	VOLUME	654093.775	4194087.447	7.42
LOCATION L0012105	VOLUME	654092.055	4194088.070	7.43
LOCATION L0012106	VOLUME	654090.336	4194088.693	7.44
LOCATION L0012107	VOLUME	654088.616	4194089.315	7.45
LOCATION L0012108	VOLUME	654086.897	4194089.938	7.46
LOCATION L0012109	VOLUME	654085.177	4194090.561	7.47
LOCATION L0012110	VOLUME	654083.458	4194091.184	7.47
LOCATION L0012111	VOLUME	654081.738	4194091.807	7.48

LOCATION L0012112	VOLUME	654080.019	4194092.430	7.49
LOCATION L0012113	VOLUME	654078.300	4194093.053	7.51
LOCATION L0012114	VOLUME	654076.580	4194093.676	7.52
LOCATION L0012115	VOLUME	654074.861	4194094.299	7.53
LOCATION L0012116	VOLUME	654073.141	4194094.922	7.54
LOCATION L0012117	VOLUME	654071.422	4194095.544	7.55
LOCATION L0012118	VOLUME	654069.702	4194096.167	7.57
LOCATION L0012119	VOLUME	654067.983	4194096.790	7.58
LOCATION L0012120	VOLUME	654066.263	4194097.413	7.60
LOCATION L0012121	VOLUME	654064.544	4194098.036	7.61
LOCATION L0012122	VOLUME	654062.824	4194098.659	7.63
LOCATION L0012123	VOLUME	654061.105	4194099.282	7.64
LOCATION L0012124	VOLUME	654059.386	4194099.905	7.66
LOCATION L0012125	VOLUME	654057.666	4194100.528	7.67
LOCATION L0012126	VOLUME	654055.947	4194101.150	7.69
LOCATION L0012127	VOLUME	654054.227	4194101.773	7.71
LOCATION L0012128	VOLUME	654052.508	4194102.396	7.73
LOCATION L0012129	VOLUME	654050.788	4194103.019	7.75
LOCATION L0012130	VOLUME	654049.069	4194103.642	7.76
LOCATION L0012131	VOLUME	654047.349	4194104.265	7.79
LOCATION L0012132	VOLUME	654045.630	4194104.888	7.81
LOCATION L0012133	VOLUME	654043.911	4194105.511	7.84
LOCATION L0012134	VOLUME	654042.191	4194106.134	7.87
LOCATION L0012135	VOLUME	654040.472	4194106.757	7.89
LOCATION L0012136	VOLUME	654038.752	4194107.379	7.92
LOCATION L0012137	VOLUME	654037.033	4194108.002	7.94
LOCATION L0012138	VOLUME	654035.313	4194108.625	7.97
LOCATION L0012139	VOLUME	654033.594	4194109.248	7.99
LOCATION L0012140	VOLUME	654031.874	4194109.871	8.01
LOCATION L0012141	VOLUME	654030.155	4194110.494	8.04
LOCATION L0012142	VOLUME	654028.435	4194111.117	8.07
LOCATION L0012143	VOLUME	654026.716	4194111.740	8.10
LOCATION L0012144	VOLUME	654024.997	4194112.363	8.13
LOCATION L0012145	VOLUME	654023.277	4194112.985	8.15
LOCATION L0012146	VOLUME	654021.558	4194113.608	8.18
LOCATION L0012147	VOLUME	654019.838	4194114.231	8.20
LOCATION L0012148	VOLUME	654018.119	4194114.854	8.22
LOCATION L0012149	VOLUME	654016.399	4194115.477	8.24
LOCATION L0012150	VOLUME	654014.680	4194116.100	8.25
LOCATION L0012151	VOLUME	654012.960	4194116.723	8.26
LOCATION L0012152	VOLUME	654011.241	4194117.346	8.27

** End of LINE VOLUME Source ID = SLINE12

** -----

** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = SLINE13

** DESCRSRC Mobile (Airport Way - North)

** PREFIX

** Length of Side = 1.83

** Configuration = Adjacent

** Emission Rate = 1.0

** Vertical Dimension = 3.66

** SZINIT = 1.70

** Nodes = 4

** 654006.396, 4194127.503, 8.29, 3.66, 0.85

** 654035.065, 4194363.223, 7.37, 3.66, 0.85

** 654036.657, 4194471.526, 7.14, 3.66, 0.85

** 654020.730, 4194602.128, 7.07, 0.00, 0.85

** -----

LOCATION L0013626	VOLUME	654006.506	4194128.411	8.29
LOCATION L0013627	VOLUME	654006.727	4194130.226	8.29
LOCATION L0013628	VOLUME	654006.948	4194132.042	8.29
LOCATION L0013629	VOLUME	654007.169	4194133.857	8.29
LOCATION L0013630	VOLUME	654007.389	4194135.673	8.29
LOCATION L0013631	VOLUME	654007.610	4194137.488	8.29
LOCATION L0013632	VOLUME	654007.831	4194139.303	8.29
LOCATION L0013633	VOLUME	654008.052	4194141.119	8.29
LOCATION L0013634	VOLUME	654008.273	4194142.934	8.29
LOCATION L0013635	VOLUME	654008.493	4194144.750	8.29
LOCATION L0013636	VOLUME	654008.714	4194146.565	8.29
LOCATION L0013637	VOLUME	654008.935	4194148.381	8.29
LOCATION L0013638	VOLUME	654009.156	4194150.196	8.29
LOCATION L0013639	VOLUME	654009.377	4194152.011	8.29
LOCATION L0013640	VOLUME	654009.597	4194153.827	8.29
LOCATION L0013641	VOLUME	654009.818	4194155.642	8.29
LOCATION L0013642	VOLUME	654010.039	4194157.458	8.29
LOCATION L0013643	VOLUME	654010.260	4194159.273	8.28
LOCATION L0013644	VOLUME	654010.481	4194161.088	8.28
LOCATION L0013645	VOLUME	654010.701	4194162.904	8.28
LOCATION L0013646	VOLUME	654010.922	4194164.719	8.28
LOCATION L0013647	VOLUME	654011.143	4194166.535	8.28
LOCATION L0013648	VOLUME	654011.364	4194168.350	8.27
LOCATION L0013649	VOLUME	654011.585	4194170.166	8.27
LOCATION L0013650	VOLUME	654011.805	4194171.981	8.27
LOCATION L0013651	VOLUME	654012.026	4194173.796	8.26
LOCATION L0013652	VOLUME	654012.247	4194175.612	8.26
LOCATION L0013653	VOLUME	654012.468	4194177.427	8.26
LOCATION L0013654	VOLUME	654012.689	4194179.243	8.26
LOCATION L0013655	VOLUME	654012.909	4194181.058	8.26
LOCATION L0013656	VOLUME	654013.130	4194182.874	8.26
LOCATION L0013657	VOLUME	654013.351	4194184.689	8.25
LOCATION L0013658	VOLUME	654013.572	4194186.504	8.25
LOCATION L0013659	VOLUME	654013.793	4194188.320	8.25
LOCATION L0013660	VOLUME	654014.013	4194190.135	8.25
LOCATION L0013661	VOLUME	654014.234	4194191.951	8.24
LOCATION L0013662	VOLUME	654014.455	4194193.766	8.24
LOCATION L0013663	VOLUME	654014.676	4194195.582	8.23
LOCATION L0013664	VOLUME	654014.897	4194197.397	8.22
LOCATION L0013665	VOLUME	654015.117	4194199.212	8.22
LOCATION L0013666	VOLUME	654015.338	4194201.028	8.21
LOCATION L0013667	VOLUME	654015.559	4194202.843	8.21
LOCATION L0013668	VOLUME	654015.780	4194204.659	8.20
LOCATION L0013669	VOLUME	654016.000	4194206.474	8.20
LOCATION L0013670	VOLUME	654016.221	4194208.289	8.19
LOCATION L0013671	VOLUME	654016.442	4194210.105	8.19
LOCATION L0013672	VOLUME	654016.663	4194211.920	8.19
LOCATION L0013673	VOLUME	654016.884	4194213.736	8.18
LOCATION L0013674	VOLUME	654017.104	4194215.551	8.18
LOCATION L0013675	VOLUME	654017.325	4194217.367	8.17
LOCATION L0013676	VOLUME	654017.546	4194219.182	8.17
LOCATION L0013677	VOLUME	654017.767	4194220.997	8.17

LOCATION L0013678	VOLUME	654017.988	4194222.813	8.16
LOCATION L0013679	VOLUME	654018.208	4194224.628	8.16
LOCATION L0013680	VOLUME	654018.429	4194226.444	8.15
LOCATION L0013681	VOLUME	654018.650	4194228.259	8.15
LOCATION L0013682	VOLUME	654018.871	4194230.075	8.15
LOCATION L0013683	VOLUME	654019.092	4194231.890	8.14
LOCATION L0013684	VOLUME	654019.312	4194233.705	8.14
LOCATION L0013685	VOLUME	654019.533	4194235.521	8.14
LOCATION L0013686	VOLUME	654019.754	4194237.336	8.13
LOCATION L0013687	VOLUME	654019.975	4194239.152	8.13
LOCATION L0013688	VOLUME	654020.196	4194240.967	8.13
LOCATION L0013689	VOLUME	654020.416	4194242.782	8.12
LOCATION L0013690	VOLUME	654020.637	4194244.598	8.12
LOCATION L0013691	VOLUME	654020.858	4194246.413	8.11
LOCATION L0013692	VOLUME	654021.079	4194248.229	8.11
LOCATION L0013693	VOLUME	654021.300	4194250.044	8.11
LOCATION L0013694	VOLUME	654021.520	4194251.860	8.10
LOCATION L0013695	VOLUME	654021.741	4194253.675	8.09
LOCATION L0013696	VOLUME	654021.962	4194255.490	8.09
LOCATION L0013697	VOLUME	654022.183	4194257.306	8.08
LOCATION L0013698	VOLUME	654022.404	4194259.121	8.08
LOCATION L0013699	VOLUME	654022.624	4194260.937	8.07
LOCATION L0013700	VOLUME	654022.845	4194262.752	8.07
LOCATION L0013701	VOLUME	654023.066	4194264.568	8.07
LOCATION L0013702	VOLUME	654023.287	4194266.383	8.06
LOCATION L0013703	VOLUME	654023.507	4194268.198	8.06
LOCATION L0013704	VOLUME	654023.728	4194270.014	8.06
LOCATION L0013705	VOLUME	654023.949	4194271.829	8.06
LOCATION L0013706	VOLUME	654024.170	4194273.645	8.05
LOCATION L0013707	VOLUME	654024.391	4194275.460	8.05
LOCATION L0013708	VOLUME	654024.611	4194277.276	8.04
LOCATION L0013709	VOLUME	654024.832	4194279.091	8.04
LOCATION L0013710	VOLUME	654025.053	4194280.906	8.04
LOCATION L0013711	VOLUME	654025.274	4194282.722	8.03
LOCATION L0013712	VOLUME	654025.495	4194284.537	8.03
LOCATION L0013713	VOLUME	654025.715	4194286.353	8.02
LOCATION L0013714	VOLUME	654025.936	4194288.168	8.01
LOCATION L0013715	VOLUME	654026.157	4194289.983	8.01
LOCATION L0013716	VOLUME	654026.378	4194291.799	8.00
LOCATION L0013717	VOLUME	654026.599	4194293.614	7.99
LOCATION L0013718	VOLUME	654026.819	4194295.430	7.98
LOCATION L0013719	VOLUME	654027.040	4194297.245	7.97
LOCATION L0013720	VOLUME	654027.261	4194299.061	7.96
LOCATION L0013721	VOLUME	654027.482	4194300.876	7.95
LOCATION L0013722	VOLUME	654027.703	4194302.691	7.94
LOCATION L0013723	VOLUME	654027.923	4194304.507	7.93
LOCATION L0013724	VOLUME	654028.144	4194306.322	7.91
LOCATION L0013725	VOLUME	654028.365	4194308.138	7.90
LOCATION L0013726	VOLUME	654028.586	4194309.953	7.89
LOCATION L0013727	VOLUME	654028.807	4194311.769	7.87
LOCATION L0013728	VOLUME	654029.027	4194313.584	7.85
LOCATION L0013729	VOLUME	654029.248	4194315.399	7.83
LOCATION L0013730	VOLUME	654029.469	4194317.215	7.81
LOCATION L0013731	VOLUME	654029.690	4194319.030	7.79
LOCATION L0013732	VOLUME	654029.911	4194320.846	7.77

LOCATION L0013733	VOLUME	654030.131	4194322.661	7.75
LOCATION L0013734	VOLUME	654030.352	4194324.477	7.74
LOCATION L0013735	VOLUME	654030.573	4194326.292	7.72
LOCATION L0013736	VOLUME	654030.794	4194328.107	7.70
LOCATION L0013737	VOLUME	654031.015	4194329.923	7.68
LOCATION L0013738	VOLUME	654031.235	4194331.738	7.66
LOCATION L0013739	VOLUME	654031.456	4194333.554	7.64
LOCATION L0013740	VOLUME	654031.677	4194335.369	7.62
LOCATION L0013741	VOLUME	654031.898	4194337.184	7.60
LOCATION L0013742	VOLUME	654032.118	4194339.000	7.59
LOCATION L0013743	VOLUME	654032.339	4194340.815	7.57
LOCATION L0013744	VOLUME	654032.560	4194342.631	7.55
LOCATION L0013745	VOLUME	654032.781	4194344.446	7.53
LOCATION L0013746	VOLUME	654033.002	4194346.262	7.52
LOCATION L0013747	VOLUME	654033.222	4194348.077	7.50
LOCATION L0013748	VOLUME	654033.443	4194349.892	7.48
LOCATION L0013749	VOLUME	654033.664	4194351.708	7.47
LOCATION L0013750	VOLUME	654033.885	4194353.523	7.45
LOCATION L0013751	VOLUME	654034.106	4194355.339	7.43
LOCATION L0013752	VOLUME	654034.326	4194357.154	7.42
LOCATION L0013753	VOLUME	654034.547	4194358.970	7.40
LOCATION L0013754	VOLUME	654034.768	4194360.785	7.39
LOCATION L0013755	VOLUME	654034.989	4194362.600	7.37
LOCATION L0013756	VOLUME	654035.082	4194364.424	7.36
LOCATION L0013757	VOLUME	654035.109	4194366.253	7.35
LOCATION L0013758	VOLUME	654035.136	4194368.082	7.35
LOCATION L0013759	VOLUME	654035.163	4194369.910	7.34
LOCATION L0013760	VOLUME	654035.190	4194371.739	7.33
LOCATION L0013761	VOLUME	654035.217	4194373.567	7.32
LOCATION L0013762	VOLUME	654035.244	4194375.396	7.31
LOCATION L0013763	VOLUME	654035.270	4194377.225	7.30
LOCATION L0013764	VOLUME	654035.297	4194379.053	7.29
LOCATION L0013765	VOLUME	654035.324	4194380.882	7.28
LOCATION L0013766	VOLUME	654035.351	4194382.710	7.27
LOCATION L0013767	VOLUME	654035.378	4194384.539	7.27
LOCATION L0013768	VOLUME	654035.405	4194386.368	7.26
LOCATION L0013769	VOLUME	654035.432	4194388.196	7.25
LOCATION L0013770	VOLUME	654035.459	4194390.025	7.24
LOCATION L0013771	VOLUME	654035.486	4194391.854	7.24
LOCATION L0013772	VOLUME	654035.512	4194393.682	7.23
LOCATION L0013773	VOLUME	654035.539	4194395.511	7.23
LOCATION L0013774	VOLUME	654035.566	4194397.339	7.22
LOCATION L0013775	VOLUME	654035.593	4194399.168	7.22
LOCATION L0013776	VOLUME	654035.620	4194400.997	7.21
LOCATION L0013777	VOLUME	654035.647	4194402.825	7.21
LOCATION L0013778	VOLUME	654035.674	4194404.654	7.21
LOCATION L0013779	VOLUME	654035.701	4194406.482	7.20
LOCATION L0013780	VOLUME	654035.728	4194408.311	7.20
LOCATION L0013781	VOLUME	654035.754	4194410.140	7.19
LOCATION L0013782	VOLUME	654035.781	4194411.968	7.19
LOCATION L0013783	VOLUME	654035.808	4194413.797	7.18
LOCATION L0013784	VOLUME	654035.835	4194415.625	7.18
LOCATION L0013785	VOLUME	654035.862	4194417.454	7.17
LOCATION L0013786	VOLUME	654035.889	4194419.283	7.17
LOCATION L0013787	VOLUME	654035.916	4194421.111	7.17

LOCATION L0013788	VOLUME	654035.943	4194422.940	7.17
LOCATION L0013789	VOLUME	654035.970	4194424.768	7.16
LOCATION L0013790	VOLUME	654035.996	4194426.597	7.16
LOCATION L0013791	VOLUME	654036.023	4194428.426	7.16
LOCATION L0013792	VOLUME	654036.050	4194430.254	7.16
LOCATION L0013793	VOLUME	654036.077	4194432.083	7.16
LOCATION L0013794	VOLUME	654036.104	4194433.911	7.15
LOCATION L0013795	VOLUME	654036.131	4194435.740	7.15
LOCATION L0013796	VOLUME	654036.158	4194437.569	7.15
LOCATION L0013797	VOLUME	654036.185	4194439.397	7.15
LOCATION L0013798	VOLUME	654036.212	4194441.226	7.14
LOCATION L0013799	VOLUME	654036.238	4194443.054	7.14
LOCATION L0013800	VOLUME	654036.265	4194444.883	7.14
LOCATION L0013801	VOLUME	654036.292	4194446.712	7.14
LOCATION L0013802	VOLUME	654036.319	4194448.540	7.14
LOCATION L0013803	VOLUME	654036.346	4194450.369	7.14
LOCATION L0013804	VOLUME	654036.373	4194452.197	7.14
LOCATION L0013805	VOLUME	654036.400	4194454.026	7.14
LOCATION L0013806	VOLUME	654036.427	4194455.855	7.14
LOCATION L0013807	VOLUME	654036.454	4194457.683	7.14
LOCATION L0013808	VOLUME	654036.481	4194459.512	7.14
LOCATION L0013809	VOLUME	654036.507	4194461.340	7.14
LOCATION L0013810	VOLUME	654036.534	4194463.169	7.14
LOCATION L0013811	VOLUME	654036.561	4194464.998	7.14
LOCATION L0013812	VOLUME	654036.588	4194466.826	7.14
LOCATION L0013813	VOLUME	654036.615	4194468.655	7.14
LOCATION L0013814	VOLUME	654036.642	4194470.483	7.14
LOCATION L0013815	VOLUME	654036.562	4194472.306	7.14
LOCATION L0013816	VOLUME	654036.341	4194474.122	7.14
LOCATION L0013817	VOLUME	654036.119	4194475.937	7.14
LOCATION L0013818	VOLUME	654035.898	4194477.752	7.14
LOCATION L0013819	VOLUME	654035.677	4194479.568	7.14
LOCATION L0013820	VOLUME	654035.455	4194481.383	7.14
LOCATION L0013821	VOLUME	654035.234	4194483.198	7.14
LOCATION L0013822	VOLUME	654035.012	4194485.014	7.14
LOCATION L0013823	VOLUME	654034.791	4194486.829	7.13
LOCATION L0013824	VOLUME	654034.570	4194488.644	7.13
LOCATION L0013825	VOLUME	654034.348	4194490.460	7.13
LOCATION L0013826	VOLUME	654034.127	4194492.275	7.13
LOCATION L0013827	VOLUME	654033.905	4194494.091	7.13
LOCATION L0013828	VOLUME	654033.684	4194495.906	7.12
LOCATION L0013829	VOLUME	654033.463	4194497.721	7.12
LOCATION L0013830	VOLUME	654033.241	4194499.537	7.12
LOCATION L0013831	VOLUME	654033.020	4194501.352	7.12
LOCATION L0013832	VOLUME	654032.799	4194503.167	7.12
LOCATION L0013833	VOLUME	654032.577	4194504.983	7.12
LOCATION L0013834	VOLUME	654032.356	4194506.798	7.12
LOCATION L0013835	VOLUME	654032.134	4194508.613	7.12
LOCATION L0013836	VOLUME	654031.913	4194510.429	7.12
LOCATION L0013837	VOLUME	654031.692	4194512.244	7.12
LOCATION L0013838	VOLUME	654031.470	4194514.059	7.11
LOCATION L0013839	VOLUME	654031.249	4194515.875	7.11
LOCATION L0013840	VOLUME	654031.027	4194517.690	7.11
LOCATION L0013841	VOLUME	654030.806	4194519.505	7.11
LOCATION L0013842	VOLUME	654030.585	4194521.321	7.11

LOCATION L0013843	VOLUME	654030.363	4194523.136	7.11
LOCATION L0013844	VOLUME	654030.142	4194524.951	7.11
LOCATION L0013845	VOLUME	654029.921	4194526.767	7.11
LOCATION L0013846	VOLUME	654029.699	4194528.582	7.11
LOCATION L0013847	VOLUME	654029.478	4194530.398	7.11
LOCATION L0013848	VOLUME	654029.256	4194532.213	7.11
LOCATION L0013849	VOLUME	654029.035	4194534.028	7.11
LOCATION L0013850	VOLUME	654028.814	4194535.844	7.11
LOCATION L0013851	VOLUME	654028.592	4194537.659	7.10
LOCATION L0013852	VOLUME	654028.371	4194539.474	7.10
LOCATION L0013853	VOLUME	654028.149	4194541.290	7.10
LOCATION L0013854	VOLUME	654027.928	4194543.105	7.10
LOCATION L0013855	VOLUME	654027.707	4194544.920	7.10
LOCATION L0013856	VOLUME	654027.485	4194546.736	7.10
LOCATION L0013857	VOLUME	654027.264	4194548.551	7.10
LOCATION L0013858	VOLUME	654027.043	4194550.366	7.10
LOCATION L0013859	VOLUME	654026.821	4194552.182	7.10
LOCATION L0013860	VOLUME	654026.600	4194553.997	7.10
LOCATION L0013861	VOLUME	654026.378	4194555.812	7.10
LOCATION L0013862	VOLUME	654026.157	4194557.628	7.09
LOCATION L0013863	VOLUME	654025.936	4194559.443	7.09
LOCATION L0013864	VOLUME	654025.714	4194561.258	7.09
LOCATION L0013865	VOLUME	654025.493	4194563.074	7.09
LOCATION L0013866	VOLUME	654025.271	4194564.889	7.09
LOCATION L0013867	VOLUME	654025.050	4194566.705	7.09
LOCATION L0013868	VOLUME	654024.829	4194568.520	7.09
LOCATION L0013869	VOLUME	654024.607	4194570.335	7.09
LOCATION L0013870	VOLUME	654024.386	4194572.151	7.09
LOCATION L0013871	VOLUME	654024.165	4194573.966	7.09
LOCATION L0013872	VOLUME	654023.943	4194575.781	7.08
LOCATION L0013873	VOLUME	654023.722	4194577.597	7.08
LOCATION L0013874	VOLUME	654023.500	4194579.412	7.08
LOCATION L0013875	VOLUME	654023.279	4194581.227	7.08
LOCATION L0013876	VOLUME	654023.058	4194583.043	7.08
LOCATION L0013877	VOLUME	654022.836	4194584.858	7.08
LOCATION L0013878	VOLUME	654022.615	4194586.673	7.08
LOCATION L0013879	VOLUME	654022.393	4194588.489	7.08
LOCATION L0013880	VOLUME	654022.172	4194590.304	7.08
LOCATION L0013881	VOLUME	654021.951	4194592.119	7.08
LOCATION L0013882	VOLUME	654021.729	4194593.935	7.07
LOCATION L0013883	VOLUME	654021.508	4194595.750	7.07
LOCATION L0013884	VOLUME	654021.287	4194597.566	7.07
LOCATION L0013885	VOLUME	654021.065	4194599.381	7.07
LOCATION L0013886	VOLUME	654020.844	4194601.196	7.07

** End of LINE VOLUME Source ID = SLINE13

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** Line Source Represented by Adjacent Volume Sources

** LINE VOLUME Source ID = SLINE14

** DESCRSRC Mobile (Airport Way - South)

** PREFIX

** Length of Side = 1.83

** Configuration = Adjacent

** Emission Rate = 1.0

** Vertical Dimension = 3.66

** SZINIT = 1.70

** Nodes = 2

** 654003.211, 4194122.725, 8.28, 3.66, 0.85

** 653695.820, 4193375.749, 7.18, 3.66, 0.85

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LOCATION L0013887	VOLUME	654002.863	4194121.879	8.30
LOCATION L0013888	VOLUME	654002.167	4194120.188	8.29
LOCATION L0013889	VOLUME	654001.471	4194118.497	8.29
LOCATION L0013890	VOLUME	654000.775	4194116.806	8.29
LOCATION L0013891	VOLUME	654000.079	4194115.115	8.29
LOCATION L0013892	VOLUME	653999.383	4194113.423	8.29
LOCATION L0013893	VOLUME	653998.687	4194111.732	8.28
LOCATION L0013894	VOLUME	653997.991	4194110.041	8.27
LOCATION L0013895	VOLUME	653997.295	4194108.350	8.26
LOCATION L0013896	VOLUME	653996.599	4194106.659	8.25
LOCATION L0013897	VOLUME	653995.903	4194104.967	8.23
LOCATION L0013898	VOLUME	653995.207	4194103.276	8.18
LOCATION L0013899	VOLUME	653994.511	4194101.585	8.11
LOCATION L0013900	VOLUME	653993.815	4194099.894	8.03
LOCATION L0013901	VOLUME	653993.119	4194098.203	7.94
LOCATION L0013902	VOLUME	653992.423	4194096.511	7.83
LOCATION L0013903	VOLUME	653991.727	4194094.820	7.69
LOCATION L0013904	VOLUME	653991.031	4194093.129	7.56
LOCATION L0013905	VOLUME	653990.335	4194091.438	7.43
LOCATION L0013906	VOLUME	653989.639	4194089.747	7.31
LOCATION L0013907	VOLUME	653988.943	4194088.055	7.18
LOCATION L0013908	VOLUME	653988.248	4194086.364	7.06
LOCATION L0013909	VOLUME	653987.552	4194084.673	6.94
LOCATION L0013910	VOLUME	653986.856	4194082.982	6.77
LOCATION L0013911	VOLUME	653986.160	4194081.291	6.62
LOCATION L0013912	VOLUME	653985.464	4194079.599	6.49
LOCATION L0013913	VOLUME	653984.768	4194077.908	6.37
LOCATION L0013914	VOLUME	653984.072	4194076.217	6.29
LOCATION L0013915	VOLUME	653983.376	4194074.526	6.23
LOCATION L0013916	VOLUME	653982.680	4194072.835	6.23
LOCATION L0013917	VOLUME	653981.984	4194071.143	6.24
LOCATION L0013918	VOLUME	653981.288	4194069.452	6.25
LOCATION L0013919	VOLUME	653980.592	4194067.761	6.26
LOCATION L0013920	VOLUME	653979.896	4194066.070	6.27
LOCATION L0013921	VOLUME	653979.200	4194064.379	6.27
LOCATION L0013922	VOLUME	653978.504	4194062.687	6.27
LOCATION L0013923	VOLUME	653977.808	4194060.996	6.28
LOCATION L0013924	VOLUME	653977.112	4194059.305	6.29
LOCATION L0013925	VOLUME	653976.416	4194057.614	6.31
LOCATION L0013926	VOLUME	653975.720	4194055.923	6.36
LOCATION L0013927	VOLUME	653975.024	4194054.231	6.42
LOCATION L0013928	VOLUME	653974.328	4194052.540	6.52
LOCATION L0013929	VOLUME	653973.633	4194050.849	6.64
LOCATION L0013930	VOLUME	653972.937	4194049.158	6.77
LOCATION L0013931	VOLUME	653972.241	4194047.467	6.89
LOCATION L0013932	VOLUME	653971.545	4194045.775	7.02
LOCATION L0013933	VOLUME	653970.849	4194044.084	7.14
LOCATION L0013934	VOLUME	653970.153	4194042.393	7.25
LOCATION L0013935	VOLUME	653969.457	4194040.702	7.35
LOCATION L0013936	VOLUME	653968.761	4194039.011	7.45
LOCATION L0013937	VOLUME	653968.065	4194037.319	7.55

LOCATION L0013938	VOLUME	653967.369	4194035.628	7.63
LOCATION L0013939	VOLUME	653966.673	4194033.937	7.72
LOCATION L0013940	VOLUME	653965.977	4194032.246	7.78
LOCATION L0013941	VOLUME	653965.281	4194030.555	7.80
LOCATION L0013942	VOLUME	653964.585	4194028.863	7.82
LOCATION L0013943	VOLUME	653963.889	4194027.172	7.84
LOCATION L0013944	VOLUME	653963.193	4194025.481	7.86
LOCATION L0013945	VOLUME	653962.497	4194023.790	7.88
LOCATION L0013946	VOLUME	653961.801	4194022.099	7.90
LOCATION L0013947	VOLUME	653961.105	4194020.407	7.93
LOCATION L0013948	VOLUME	653960.409	4194018.716	7.94
LOCATION L0013949	VOLUME	653959.713	4194017.025	7.96
LOCATION L0013950	VOLUME	653959.018	4194015.334	7.98
LOCATION L0013951	VOLUME	653958.322	4194013.643	8.00
LOCATION L0013952	VOLUME	653957.626	4194011.951	8.02
LOCATION L0013953	VOLUME	653956.930	4194010.260	8.04
LOCATION L0013954	VOLUME	653956.234	4194008.569	8.06
LOCATION L0013955	VOLUME	653955.538	4194006.878	8.08
LOCATION L0013956	VOLUME	653954.842	4194005.187	8.11
LOCATION L0013957	VOLUME	653954.146	4194003.495	8.13
LOCATION L0013958	VOLUME	653953.450	4194001.804	8.15
LOCATION L0013959	VOLUME	653952.754	4194000.113	8.16
LOCATION L0013960	VOLUME	653952.058	4193998.422	8.17
LOCATION L0013961	VOLUME	653951.362	4193996.731	8.17
LOCATION L0013962	VOLUME	653950.666	4193995.039	8.18
LOCATION L0013963	VOLUME	653949.970	4193993.348	8.19
LOCATION L0013964	VOLUME	653949.274	4193991.657	8.19
LOCATION L0013965	VOLUME	653948.578	4193989.966	8.20
LOCATION L0013966	VOLUME	653947.882	4193988.275	8.20
LOCATION L0013967	VOLUME	653947.186	4193986.583	8.21
LOCATION L0013968	VOLUME	653946.490	4193984.892	8.22
LOCATION L0013969	VOLUME	653945.794	4193983.201	8.22
LOCATION L0013970	VOLUME	653945.098	4193981.510	8.23
LOCATION L0013971	VOLUME	653944.403	4193979.819	8.23
LOCATION L0013972	VOLUME	653943.707	4193978.127	8.23
LOCATION L0013973	VOLUME	653943.011	4193976.436	8.23
LOCATION L0013974	VOLUME	653942.315	4193974.745	8.23
LOCATION L0013975	VOLUME	653941.619	4193973.054	8.23
LOCATION L0013976	VOLUME	653940.923	4193971.363	8.23
LOCATION L0013977	VOLUME	653940.227	4193969.671	8.23
LOCATION L0013978	VOLUME	653939.531	4193967.980	8.22
LOCATION L0013979	VOLUME	653938.835	4193966.289	8.22
LOCATION L0013980	VOLUME	653938.139	4193964.598	8.22
LOCATION L0013981	VOLUME	653937.443	4193962.907	8.23
LOCATION L0013982	VOLUME	653936.747	4193961.215	8.23
LOCATION L0013983	VOLUME	653936.051	4193959.524	8.23
LOCATION L0013984	VOLUME	653935.355	4193957.833	8.23
LOCATION L0013985	VOLUME	653934.659	4193956.142	8.23
LOCATION L0013986	VOLUME	653933.963	4193954.451	8.23
LOCATION L0013987	VOLUME	653933.267	4193952.759	8.23
LOCATION L0013988	VOLUME	653932.571	4193951.068	8.23
LOCATION L0013989	VOLUME	653931.875	4193949.377	8.23
LOCATION L0013990	VOLUME	653931.179	4193947.686	8.23
LOCATION L0013991	VOLUME	653930.483	4193945.995	8.24
LOCATION L0013992	VOLUME	653929.788	4193944.303	8.24

LOCATION L0013993	VOLUME	653929.092	4193942.612	8.24
LOCATION L0013994	VOLUME	653928.396	4193940.921	8.24
LOCATION L0013995	VOLUME	653927.700	4193939.230	8.25
LOCATION L0013996	VOLUME	653927.004	4193937.539	8.25
LOCATION L0013997	VOLUME	653926.308	4193935.847	8.25
LOCATION L0013998	VOLUME	653925.612	4193934.156	8.25
LOCATION L0013999	VOLUME	653924.916	4193932.465	8.25
LOCATION L0014000	VOLUME	653924.220	4193930.774	8.26
LOCATION L0014001	VOLUME	653923.524	4193929.083	8.26
LOCATION L0014002	VOLUME	653922.828	4193927.391	8.26
LOCATION L0014003	VOLUME	653922.132	4193925.700	8.26
LOCATION L0014004	VOLUME	653921.436	4193924.009	8.26
LOCATION L0014005	VOLUME	653920.740	4193922.318	8.26
LOCATION L0014006	VOLUME	653920.044	4193920.627	8.26
LOCATION L0014007	VOLUME	653919.348	4193918.935	8.26
LOCATION L0014008	VOLUME	653918.652	4193917.244	8.26
LOCATION L0014009	VOLUME	653917.956	4193915.553	8.27
LOCATION L0014010	VOLUME	653917.260	4193913.862	8.27
LOCATION L0014011	VOLUME	653916.564	4193912.171	8.27
LOCATION L0014012	VOLUME	653915.868	4193910.479	8.27
LOCATION L0014013	VOLUME	653915.173	4193908.788	8.27
LOCATION L0014014	VOLUME	653914.477	4193907.097	8.27
LOCATION L0014015	VOLUME	653913.781	4193905.406	8.27
LOCATION L0014016	VOLUME	653913.085	4193903.715	8.28
LOCATION L0014017	VOLUME	653912.389	4193902.023	8.28
LOCATION L0014018	VOLUME	653911.693	4193900.332	8.28
LOCATION L0014019	VOLUME	653910.997	4193898.641	8.28
LOCATION L0014020	VOLUME	653910.301	4193896.950	8.28
LOCATION L0014021	VOLUME	653909.605	4193895.259	8.28
LOCATION L0014022	VOLUME	653908.909	4193893.567	8.28
LOCATION L0014023	VOLUME	653908.213	4193891.876	8.28
LOCATION L0014024	VOLUME	653907.517	4193890.185	8.28
LOCATION L0014025	VOLUME	653906.821	4193888.494	8.29
LOCATION L0014026	VOLUME	653906.125	4193886.803	8.29
LOCATION L0014027	VOLUME	653905.429	4193885.111	8.29
LOCATION L0014028	VOLUME	653904.733	4193883.420	8.29
LOCATION L0014029	VOLUME	653904.037	4193881.729	8.29
LOCATION L0014030	VOLUME	653903.341	4193880.038	8.29
LOCATION L0014031	VOLUME	653902.645	4193878.347	8.29
LOCATION L0014032	VOLUME	653901.949	4193876.655	8.29
LOCATION L0014033	VOLUME	653901.253	4193874.964	8.29
LOCATION L0014034	VOLUME	653900.558	4193873.273	8.29
LOCATION L0014035	VOLUME	653899.862	4193871.582	8.29
LOCATION L0014036	VOLUME	653899.166	4193869.891	8.29
LOCATION L0014037	VOLUME	653898.470	4193868.199	8.29
LOCATION L0014038	VOLUME	653897.774	4193866.508	8.29
LOCATION L0014039	VOLUME	653897.078	4193864.817	8.29
LOCATION L0014040	VOLUME	653896.382	4193863.126	8.29
LOCATION L0014041	VOLUME	653895.686	4193861.435	8.30
LOCATION L0014042	VOLUME	653894.990	4193859.743	8.30
LOCATION L0014043	VOLUME	653894.294	4193858.052	8.30
LOCATION L0014044	VOLUME	653893.598	4193856.361	8.30
LOCATION L0014045	VOLUME	653892.902	4193854.670	8.30
LOCATION L0014046	VOLUME	653892.206	4193852.979	8.30
LOCATION L0014047	VOLUME	653891.510	4193851.287	8.30

LOCATION L0014048	VOLUME	653890.814	4193849.596	8.30
LOCATION L0014049	VOLUME	653890.118	4193847.905	8.29
LOCATION L0014050	VOLUME	653889.422	4193846.214	8.29
LOCATION L0014051	VOLUME	653888.726	4193844.523	8.29
LOCATION L0014052	VOLUME	653888.030	4193842.831	8.29
LOCATION L0014053	VOLUME	653887.334	4193841.140	8.29
LOCATION L0014054	VOLUME	653886.638	4193839.449	8.29
LOCATION L0014055	VOLUME	653885.943	4193837.758	8.29
LOCATION L0014056	VOLUME	653885.247	4193836.067	8.30
LOCATION L0014057	VOLUME	653884.551	4193834.375	8.30
LOCATION L0014058	VOLUME	653883.855	4193832.684	8.29
LOCATION L0014059	VOLUME	653883.159	4193830.993	8.29
LOCATION L0014060	VOLUME	653882.463	4193829.302	8.29
LOCATION L0014061	VOLUME	653881.767	4193827.611	8.29
LOCATION L0014062	VOLUME	653881.071	4193825.919	8.29
LOCATION L0014063	VOLUME	653880.375	4193824.228	8.29
LOCATION L0014064	VOLUME	653879.679	4193822.537	8.29
LOCATION L0014065	VOLUME	653878.983	4193820.846	8.28
LOCATION L0014066	VOLUME	653878.287	4193819.155	8.28
LOCATION L0014067	VOLUME	653877.591	4193817.463	8.28
LOCATION L0014068	VOLUME	653876.895	4193815.772	8.28
LOCATION L0014069	VOLUME	653876.199	4193814.081	8.28
LOCATION L0014070	VOLUME	653875.503	4193812.390	8.28
LOCATION L0014071	VOLUME	653874.807	4193810.699	8.28
LOCATION L0014072	VOLUME	653874.111	4193809.007	8.28
LOCATION L0014073	VOLUME	653873.415	4193807.316	8.27
LOCATION L0014074	VOLUME	653872.719	4193805.625	8.27
LOCATION L0014075	VOLUME	653872.023	4193803.934	8.27
LOCATION L0014076	VOLUME	653871.328	4193802.243	8.26
LOCATION L0014077	VOLUME	653870.632	4193800.551	8.26
LOCATION L0014078	VOLUME	653869.936	4193798.860	8.26
LOCATION L0014079	VOLUME	653869.240	4193797.169	8.25
LOCATION L0014080	VOLUME	653868.544	4193795.478	8.25
LOCATION L0014081	VOLUME	653867.848	4193793.787	8.25
LOCATION L0014082	VOLUME	653867.152	4193792.095	8.24
LOCATION L0014083	VOLUME	653866.456	4193790.404	8.24
LOCATION L0014084	VOLUME	653865.760	4193788.713	8.24
LOCATION L0014085	VOLUME	653865.064	4193787.022	8.23
LOCATION L0014086	VOLUME	653864.368	4193785.331	8.23
LOCATION L0014087	VOLUME	653863.672	4193783.639	8.23
LOCATION L0014088	VOLUME	653862.976	4193781.948	8.22
LOCATION L0014089	VOLUME	653862.280	4193780.257	8.22
LOCATION L0014090	VOLUME	653861.584	4193778.566	8.21
LOCATION L0014091	VOLUME	653860.888	4193776.875	8.21
LOCATION L0014092	VOLUME	653860.192	4193775.183	8.20
LOCATION L0014093	VOLUME	653859.496	4193773.492	8.20
LOCATION L0014094	VOLUME	653858.800	4193771.801	8.19
LOCATION L0014095	VOLUME	653858.104	4193770.110	8.18
LOCATION L0014096	VOLUME	653857.408	4193768.419	8.18
LOCATION L0014097	VOLUME	653856.713	4193766.727	8.17
LOCATION L0014098	VOLUME	653856.017	4193765.036	8.16
LOCATION L0014099	VOLUME	653855.321	4193763.345	8.16
LOCATION L0014100	VOLUME	653854.625	4193761.654	8.15
LOCATION L0014101	VOLUME	653853.929	4193759.963	8.15
LOCATION L0014102	VOLUME	653853.233	4193758.271	8.14

LOCATION L0014103	VOLUME	653852.537	4193756.580	8.13
LOCATION L0014104	VOLUME	653851.841	4193754.889	8.13
LOCATION L0014105	VOLUME	653851.145	4193753.198	8.12
LOCATION L0014106	VOLUME	653850.449	4193751.507	8.11
LOCATION L0014107	VOLUME	653849.753	4193749.815	8.10
LOCATION L0014108	VOLUME	653849.057	4193748.124	8.09
LOCATION L0014109	VOLUME	653848.361	4193746.433	8.09
LOCATION L0014110	VOLUME	653847.665	4193744.742	8.08
LOCATION L0014111	VOLUME	653846.969	4193743.051	8.07
LOCATION L0014112	VOLUME	653846.273	4193741.359	8.06
LOCATION L0014113	VOLUME	653845.577	4193739.668	8.05
LOCATION L0014114	VOLUME	653844.881	4193737.977	8.04
LOCATION L0014115	VOLUME	653844.185	4193736.286	8.04
LOCATION L0014116	VOLUME	653843.489	4193734.595	8.03
LOCATION L0014117	VOLUME	653842.793	4193732.903	8.02
LOCATION L0014118	VOLUME	653842.098	4193731.212	8.01
LOCATION L0014119	VOLUME	653841.402	4193729.521	8.00
LOCATION L0014120	VOLUME	653840.706	4193727.830	7.99
LOCATION L0014121	VOLUME	653840.010	4193726.139	7.97
LOCATION L0014122	VOLUME	653839.314	4193724.447	7.96
LOCATION L0014123	VOLUME	653838.618	4193722.756	7.95
LOCATION L0014124	VOLUME	653837.922	4193721.065	7.94
LOCATION L0014125	VOLUME	653837.226	4193719.374	7.93
LOCATION L0014126	VOLUME	653836.530	4193717.683	7.92
LOCATION L0014127	VOLUME	653835.834	4193715.991	7.91
LOCATION L0014128	VOLUME	653835.138	4193714.300	7.90
LOCATION L0014129	VOLUME	653834.442	4193712.609	7.89
LOCATION L0014130	VOLUME	653833.746	4193710.918	7.87
LOCATION L0014131	VOLUME	653833.050	4193709.227	7.86
LOCATION L0014132	VOLUME	653832.354	4193707.535	7.85
LOCATION L0014133	VOLUME	653831.658	4193705.844	7.84
LOCATION L0014134	VOLUME	653830.962	4193704.153	7.82
LOCATION L0014135	VOLUME	653830.266	4193702.462	7.81
LOCATION L0014136	VOLUME	653829.570	4193700.771	7.80
LOCATION L0014137	VOLUME	653828.874	4193699.079	7.79
LOCATION L0014138	VOLUME	653828.178	4193697.388	7.77
LOCATION L0014139	VOLUME	653827.483	4193695.697	7.76
LOCATION L0014140	VOLUME	653826.787	4193694.006	7.75
LOCATION L0014141	VOLUME	653826.091	4193692.315	7.73
LOCATION L0014142	VOLUME	653825.395	4193690.623	7.72
LOCATION L0014143	VOLUME	653824.699	4193688.932	7.71
LOCATION L0014144	VOLUME	653824.003	4193687.241	7.70
LOCATION L0014145	VOLUME	653823.307	4193685.550	7.69
LOCATION L0014146	VOLUME	653822.611	4193683.858	7.68
LOCATION L0014147	VOLUME	653821.915	4193682.167	7.67
LOCATION L0014148	VOLUME	653821.219	4193680.476	7.66
LOCATION L0014149	VOLUME	653820.523	4193678.785	7.64
LOCATION L0014150	VOLUME	653819.827	4193677.094	7.62
LOCATION L0014151	VOLUME	653819.131	4193675.402	7.59
LOCATION L0014152	VOLUME	653818.435	4193673.711	7.57
LOCATION L0014153	VOLUME	653817.739	4193672.020	7.55
LOCATION L0014154	VOLUME	653817.043	4193670.329	7.52
LOCATION L0014155	VOLUME	653816.347	4193668.638	7.50
LOCATION L0014156	VOLUME	653815.651	4193666.946	7.48
LOCATION L0014157	VOLUME	653814.955	4193665.255	7.46

LOCATION L0014158	VOLUME	653814.259	4193663.564	7.44
LOCATION L0014159	VOLUME	653813.563	4193661.873	7.42
LOCATION L0014160	VOLUME	653812.868	4193660.182	7.40
LOCATION L0014161	VOLUME	653812.172	4193658.490	7.38
LOCATION L0014162	VOLUME	653811.476	4193656.799	7.37
LOCATION L0014163	VOLUME	653810.780	4193655.108	7.35
LOCATION L0014164	VOLUME	653810.084	4193653.417	7.34
LOCATION L0014165	VOLUME	653809.388	4193651.726	7.32
LOCATION L0014166	VOLUME	653808.692	4193650.034	7.31
LOCATION L0014167	VOLUME	653807.996	4193648.343	7.29
LOCATION L0014168	VOLUME	653807.300	4193646.652	7.28
LOCATION L0014169	VOLUME	653806.604	4193644.961	7.26
LOCATION L0014170	VOLUME	653805.908	4193643.270	7.25
LOCATION L0014171	VOLUME	653805.212	4193641.578	7.23
LOCATION L0014172	VOLUME	653804.516	4193639.887	7.22
LOCATION L0014173	VOLUME	653803.820	4193638.196	7.21
LOCATION L0014174	VOLUME	653803.124	4193636.505	7.19
LOCATION L0014175	VOLUME	653802.428	4193634.814	7.18
LOCATION L0014176	VOLUME	653801.732	4193633.122	7.17
LOCATION L0014177	VOLUME	653801.036	4193631.431	7.15
LOCATION L0014178	VOLUME	653800.340	4193629.740	7.14
LOCATION L0014179	VOLUME	653799.644	4193628.049	7.12
LOCATION L0014180	VOLUME	653798.948	4193626.358	7.11
LOCATION L0014181	VOLUME	653798.253	4193624.666	7.10
LOCATION L0014182	VOLUME	653797.557	4193622.975	7.08
LOCATION L0014183	VOLUME	653796.861	4193621.284	7.07
LOCATION L0014184	VOLUME	653796.165	4193619.593	7.06
LOCATION L0014185	VOLUME	653795.469	4193617.902	7.05
LOCATION L0014186	VOLUME	653794.773	4193616.210	7.04
LOCATION L0014187	VOLUME	653794.077	4193614.519	7.03
LOCATION L0014188	VOLUME	653793.381	4193612.828	7.02
LOCATION L0014189	VOLUME	653792.685	4193611.137	7.00
LOCATION L0014190	VOLUME	653791.989	4193609.446	6.99
LOCATION L0014191	VOLUME	653791.293	4193607.754	6.98
LOCATION L0014192	VOLUME	653790.597	4193606.063	6.97
LOCATION L0014193	VOLUME	653789.901	4193604.372	6.96
LOCATION L0014194	VOLUME	653789.205	4193602.681	6.95
LOCATION L0014195	VOLUME	653788.509	4193600.990	6.94
LOCATION L0014196	VOLUME	653787.813	4193599.298	6.93
LOCATION L0014197	VOLUME	653787.117	4193597.607	6.92
LOCATION L0014198	VOLUME	653786.421	4193595.916	6.91
LOCATION L0014199	VOLUME	653785.725	4193594.225	6.91
LOCATION L0014200	VOLUME	653785.029	4193592.534	6.90
LOCATION L0014201	VOLUME	653784.333	4193590.842	6.89
LOCATION L0014202	VOLUME	653783.638	4193589.151	6.88
LOCATION L0014203	VOLUME	653782.942	4193587.460	6.87
LOCATION L0014204	VOLUME	653782.246	4193585.769	6.86
LOCATION L0014205	VOLUME	653781.550	4193584.078	6.85
LOCATION L0014206	VOLUME	653780.854	4193582.386	6.85
LOCATION L0014207	VOLUME	653780.158	4193580.695	6.84
LOCATION L0014208	VOLUME	653779.462	4193579.004	6.83
LOCATION L0014209	VOLUME	653778.766	4193577.313	6.83
LOCATION L0014210	VOLUME	653778.070	4193575.622	6.82
LOCATION L0014211	VOLUME	653777.374	4193573.930	6.82
LOCATION L0014212	VOLUME	653776.678	4193572.239	6.81

LOCATION L0014213	VOLUME	653775.982	4193570.548	6.80
LOCATION L0014214	VOLUME	653775.286	4193568.857	6.80
LOCATION L0014215	VOLUME	653774.590	4193567.166	6.79
LOCATION L0014216	VOLUME	653773.894	4193565.474	6.78
LOCATION L0014217	VOLUME	653773.198	4193563.783	6.78
LOCATION L0014218	VOLUME	653772.502	4193562.092	6.77
LOCATION L0014219	VOLUME	653771.806	4193560.401	6.77
LOCATION L0014220	VOLUME	653771.110	4193558.710	6.77
LOCATION L0014221	VOLUME	653770.414	4193557.018	6.76
LOCATION L0014222	VOLUME	653769.718	4193555.327	6.76
LOCATION L0014223	VOLUME	653769.022	4193553.636	6.75
LOCATION L0014224	VOLUME	653768.327	4193551.945	6.75
LOCATION L0014225	VOLUME	653767.631	4193550.254	6.74
LOCATION L0014226	VOLUME	653766.935	4193548.562	6.74
LOCATION L0014227	VOLUME	653766.239	4193546.871	6.73
LOCATION L0014228	VOLUME	653765.543	4193545.180	6.73
LOCATION L0014229	VOLUME	653764.847	4193543.489	6.73
LOCATION L0014230	VOLUME	653764.151	4193541.798	6.72
LOCATION L0014231	VOLUME	653763.455	4193540.106	6.72
LOCATION L0014232	VOLUME	653762.759	4193538.415	6.72
LOCATION L0014233	VOLUME	653762.063	4193536.724	6.72
LOCATION L0014234	VOLUME	653761.367	4193535.033	6.71
LOCATION L0014235	VOLUME	653760.671	4193533.342	6.71
LOCATION L0014236	VOLUME	653759.975	4193531.650	6.71
LOCATION L0014237	VOLUME	653759.279	4193529.959	6.70
LOCATION L0014238	VOLUME	653758.583	4193528.268	6.70
LOCATION L0014239	VOLUME	653757.887	4193526.577	6.70
LOCATION L0014240	VOLUME	653757.191	4193524.886	6.70
LOCATION L0014241	VOLUME	653756.495	4193523.194	6.69
LOCATION L0014242	VOLUME	653755.799	4193521.503	6.69
LOCATION L0014243	VOLUME	653755.103	4193519.812	6.69
LOCATION L0014244	VOLUME	653754.407	4193518.121	6.69
LOCATION L0014245	VOLUME	653753.712	4193516.430	6.69
LOCATION L0014246	VOLUME	653753.016	4193514.738	6.68
LOCATION L0014247	VOLUME	653752.320	4193513.047	6.68
LOCATION L0014248	VOLUME	653751.624	4193511.356	6.68
LOCATION L0014249	VOLUME	653750.928	4193509.665	6.68
LOCATION L0014250	VOLUME	653750.232	4193507.974	6.68
LOCATION L0014251	VOLUME	653749.536	4193506.282	6.68
LOCATION L0014252	VOLUME	653748.840	4193504.591	6.67
LOCATION L0014253	VOLUME	653748.144	4193502.900	6.67
LOCATION L0014254	VOLUME	653747.448	4193501.209	6.67
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LOCATION L0014256	VOLUME	653746.056	4193497.826	6.67
LOCATION L0014257	VOLUME	653745.360	4193496.135	6.67
LOCATION L0014258	VOLUME	653744.664	4193494.444	6.67
LOCATION L0014259	VOLUME	653743.968	4193492.753	6.67
LOCATION L0014260	VOLUME	653743.272	4193491.062	6.66
LOCATION L0014261	VOLUME	653742.576	4193489.370	6.66
LOCATION L0014262	VOLUME	653741.880	4193487.679	6.66
LOCATION L0014263	VOLUME	653741.184	4193485.988	6.66
LOCATION L0014264	VOLUME	653740.488	4193484.297	6.66
LOCATION L0014265	VOLUME	653739.792	4193482.606	6.66
LOCATION L0014266	VOLUME	653739.097	4193480.914	6.66
LOCATION L0014267	VOLUME	653738.401	4193479.223	6.66

LOCATION L0014268	VOLUME	653737.705	4193477.532	6.66
LOCATION L0014269	VOLUME	653737.009	4193475.841	6.66
LOCATION L0014270	VOLUME	653736.313	4193474.150	6.66
LOCATION L0014271	VOLUME	653735.617	4193472.458	6.66
LOCATION L0014272	VOLUME	653734.921	4193470.767	6.66
LOCATION L0014273	VOLUME	653734.225	4193469.076	6.66
LOCATION L0014274	VOLUME	653733.529	4193467.385	6.67
LOCATION L0014275	VOLUME	653732.833	4193465.694	6.67
LOCATION L0014276	VOLUME	653732.137	4193464.002	6.67
LOCATION L0014277	VOLUME	653731.441	4193462.311	6.67
LOCATION L0014278	VOLUME	653730.745	4193460.620	6.67
LOCATION L0014279	VOLUME	653730.049	4193458.929	6.68
LOCATION L0014280	VOLUME	653729.353	4193457.238	6.68
LOCATION L0014281	VOLUME	653728.657	4193455.546	6.68
LOCATION L0014282	VOLUME	653727.961	4193453.855	6.68
LOCATION L0014283	VOLUME	653727.265	4193452.164	6.69
LOCATION L0014284	VOLUME	653726.569	4193450.473	6.69
LOCATION L0014285	VOLUME	653725.873	4193448.782	6.70
LOCATION L0014286	VOLUME	653725.177	4193447.090	6.70
LOCATION L0014287	VOLUME	653724.482	4193445.399	6.71
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LOCATION L0014289	VOLUME	653723.090	4193442.017	6.71
LOCATION L0014290	VOLUME	653722.394	4193440.326	6.72
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LOCATION L0014292	VOLUME	653721.002	4193436.943	6.73
LOCATION L0014293	VOLUME	653720.306	4193435.252	6.74
LOCATION L0014294	VOLUME	653719.610	4193433.561	6.75
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LOCATION L0014297	VOLUME	653717.522	4193428.487	6.77
LOCATION L0014298	VOLUME	653716.826	4193426.796	6.78
LOCATION L0014299	VOLUME	653716.130	4193425.105	6.79
LOCATION L0014300	VOLUME	653715.434	4193423.414	6.79
LOCATION L0014301	VOLUME	653714.738	4193421.722	6.80
LOCATION L0014302	VOLUME	653714.042	4193420.031	6.81
LOCATION L0014303	VOLUME	653713.346	4193418.340	6.82
LOCATION L0014304	VOLUME	653712.650	4193416.649	6.83
LOCATION L0014305	VOLUME	653711.954	4193414.958	6.85
LOCATION L0014306	VOLUME	653711.258	4193413.266	6.86
LOCATION L0014307	VOLUME	653710.562	4193411.575	6.87
LOCATION L0014308	VOLUME	653709.867	4193409.884	6.88
LOCATION L0014309	VOLUME	653709.171	4193408.193	6.89
LOCATION L0014310	VOLUME	653708.475	4193406.502	6.90
LOCATION L0014311	VOLUME	653707.779	4193404.810	6.92
LOCATION L0014312	VOLUME	653707.083	4193403.119	6.93
LOCATION L0014313	VOLUME	653706.387	4193401.428	6.94
LOCATION L0014314	VOLUME	653705.691	4193399.737	6.95
LOCATION L0014315	VOLUME	653704.995	4193398.046	6.97
LOCATION L0014316	VOLUME	653704.299	4193396.354	6.98
LOCATION L0014317	VOLUME	653703.603	4193394.663	7.00
LOCATION L0014318	VOLUME	653702.907	4193392.972	7.01
LOCATION L0014319	VOLUME	653702.211	4193391.281	7.02
LOCATION L0014320	VOLUME	653701.515	4193389.590	7.04
LOCATION L0014321	VOLUME	653700.819	4193387.898	7.05
LOCATION L0014322	VOLUME	653700.123	4193386.207	7.07

LOCATION L0014323	VOLUME	653699.427	4193384.516	7.08
LOCATION L0014324	VOLUME	653698.731	4193382.825	7.10
LOCATION L0014325	VOLUME	653698.035	4193381.134	7.11
LOCATION L0014326	VOLUME	653697.339	4193379.442	7.13
LOCATION L0014327	VOLUME	653696.643	4193377.751	7.15
LOCATION L0014328	VOLUME	653695.947	4193376.060	7.17

** End of LINE VOLUME Source ID = SLINE14

** Source Parameters **

** LINE VOLUME Source ID = SLINE1

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SRCPARAM L0011511	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011512	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011513	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011514	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011515	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011516	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011517	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011518	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011519	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011520	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011521	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011522	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011523	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011524	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011525	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011526	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011527	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011528	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011529	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011530	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011531	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011532	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011533	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011534	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011535	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011536	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011537	0.0064102564	3.66	0.85	1.70

SRCPARAM L0011538	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011539	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011540	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011541	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011542	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011543	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011544	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011545	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011546	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011547	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011548	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011549	0.0064102564	3.66	0.85	1.70
SRCPARAM L0011550	0.0064102564	3.66	0.85	1.70

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** LINE VOLUME Source ID = SLINE7

SRCPARAM L0011551	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011552	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011553	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011554	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011555	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011556	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011557	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011558	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011559	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011560	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011561	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011562	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011563	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011564	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011565	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011566	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011567	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011568	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011569	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011570	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011571	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011572	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011573	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011574	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011575	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011576	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011577	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011578	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011579	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011580	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011581	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011582	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011583	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011584	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011585	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011586	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011587	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011588	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011589	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011590	0.0081967213	3.66	0.85	1.70

SRCPARAM L0011591	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011592	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011593	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011594	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011595	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011596	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011597	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011598	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011599	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011600	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011601	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011602	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011603	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011604	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011605	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011606	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011607	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011608	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011609	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011610	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011611	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011612	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011613	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011614	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011615	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011616	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011617	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011618	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011619	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011620	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011621	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011622	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011623	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011624	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011625	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011626	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011627	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011628	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011629	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011630	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011631	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011632	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011633	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011634	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011635	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011636	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011637	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011638	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011639	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011640	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011641	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011642	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011643	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011644	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011645	0.0081967213	3.66	0.85	1.70

SRCPARAM L0011646	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011647	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011648	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011649	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011650	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011651	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011652	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011653	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011654	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011655	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011656	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011657	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011658	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011659	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011660	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011661	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011662	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011663	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011664	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011665	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011666	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011667	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011668	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011669	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011670	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011671	0.0081967213	3.66	0.85	1.70
SRCPARAM L0011672	0.0081967213	3.66	0.85	1.70

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** LINE VOLUME Source ID = SLINE8

SRCPARAM L0011673	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011674	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011675	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011676	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011677	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011678	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011679	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011680	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011681	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011682	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011683	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011684	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011685	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011686	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011687	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011688	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011689	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011690	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011691	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011692	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011693	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011694	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011695	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011696	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011697	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011698	0.0147058824	3.66	0.85	1.70

SRCPARAM L0011699	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011700	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011701	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011702	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011703	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011704	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011705	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011706	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011707	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011708	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011709	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011710	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011711	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011712	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011713	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011714	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011715	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011716	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011717	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011718	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011719	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011720	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011721	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011722	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011723	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011724	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011725	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011726	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011727	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011728	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011729	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011730	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011731	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011732	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011733	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011734	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011735	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011736	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011737	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011738	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011739	0.0147058824	3.66	0.85	1.70
SRCPARAM L0011740	0.0147058824	3.66	0.85	1.70

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** LINE VOLUME Source ID = SLINE9

SRCPARAM L0011741	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011742	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011743	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011744	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011745	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011746	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011747	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011748	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011749	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011750	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011751	0.0163934426	3.66	0.85	1.70

SRCPARAM L0011752	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011753	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011754	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011755	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011756	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011757	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011758	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011759	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011760	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011761	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011762	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011763	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011764	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011765	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011766	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011767	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011768	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011769	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011770	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011771	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011772	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011773	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011774	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011775	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011776	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011777	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011778	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011779	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011780	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011781	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011782	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011783	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011784	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011785	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011786	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011787	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011788	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011789	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011790	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011791	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011792	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011793	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011794	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011795	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011796	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011797	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011798	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011799	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011800	0.0163934426	3.66	0.85	1.70
SRCPARAM L0011801	0.0163934426	3.66	0.85	1.70

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** LINE VOLUME Source ID = SLINE10

SRCPARAM L0011802	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011803	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011804	0.0181818182	3.66	0.85	1.70

SRCPARAM L0011805	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011806	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011807	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011808	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011809	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011810	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011811	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011812	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011813	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011814	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011815	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011816	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011817	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011818	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011819	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011820	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011821	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011822	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011823	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011824	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011825	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011826	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011827	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011828	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011829	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011830	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011831	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011832	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011833	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011834	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011835	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011836	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011837	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011838	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011839	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011840	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011841	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011842	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011843	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011844	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011845	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011846	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011847	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011848	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011849	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011850	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011851	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011852	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011853	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011854	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011855	0.0181818182	3.66	0.85	1.70
SRCPARAM L0011856	0.0181818182	3.66	0.85	1.70

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** LINE VOLUME Source ID = SLINE11

SRCPARAM L0011857	0.0196078431	3.66	0.85	1.70
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SRCPARAM L0011858	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011859	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011860	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011861	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011862	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011863	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011864	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011865	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011866	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011867	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011868	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011869	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011870	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011871	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011872	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011873	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011874	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011875	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011876	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011877	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011878	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011879	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011880	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011881	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011882	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011883	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011884	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011885	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011886	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011887	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011888	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011889	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011890	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011891	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011892	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011893	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011894	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011895	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011896	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011897	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011898	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011899	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011900	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011901	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011902	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011903	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011904	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011905	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011906	0.0196078431	3.66	0.85	1.70
SRCPARAM L0011907	0.0196078431	3.66	0.85	1.70

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SRCPARAM STCK1	1.0	3.658	366.000	57.10000	0.100
SRCPARAM STCK15	1.0	3.962	501.000	49.00000	0.044
SRCPARAM STCK2	1.0	12.000	366.000	57.10000	0.100
SRCPARAM STCK16	1.0	3.962	501.000	49.00000	0.044

SRCPARAM STCK3	1.0	3.658	366.000	57.10000	0.100
SRCPARAM STCK17	1.0	3.962	501.000	49.00000	0.044
SRCPARAM STCK4	1.0	3.658	366.000	57.10000	0.100
SRCPARAM STCK18	1.0	3.962	501.000	49.00000	0.044
SRCPARAM STCK5	1.0	3.658	366.000	57.10000	0.100
SRCPARAM STCK19	1.0	3.962	501.000	49.00000	0.044
SRCPARAM STCK6	1.0	3.658	366.000	57.10000	0.100
SRCPARAM STCK20	1.0	3.962	501.000	49.00000	0.044
SRCPARAM STCK7	1.0	3.658	366.000	57.10000	0.100
SRCPARAM STCK21	1.0	3.962	501.000	49.00000	0.044
SRCPARAM STCK8	1.0	3.658	366.000	57.10000	0.100
SRCPARAM STCK22	1.0	3.962	501.000	49.00000	0.044
SRCPARAM STCK9	1.0	3.658	366.000	57.10000	0.100
SRCPARAM STCK23	1.0	3.962	501.000	49.00000	0.044
SRCPARAM STCK10	1.0	3.658	366.000	57.10000	0.100
SRCPARAM STCK24	1.0	3.962	501.000	49.00000	0.044
SRCPARAM STCK11	1.0	3.658	366.000	57.10000	0.100
SRCPARAM STCK25	1.0	3.962	501.000	49.00000	0.044
SRCPARAM STCK12	1.0	3.658	366.000	57.10000	0.100
SRCPARAM STCK26	1.0	3.962	501.000	49.00000	0.044
SRCPARAM STCK13	1.0	3.658	366.000	57.10000	0.100
SRCPARAM STCK27	1.0	3.962	501.000	49.00000	0.044
SRCPARAM STCK14	1.0	3.658	366.000	57.10000	0.100
SRCPARAM STCK28	1.0	3.962	501.000	49.00000	0.044

** LINE VOLUME Source ID = SLINE12

SRCPARAM L0011908	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011909	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011910	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011911	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011912	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011913	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011914	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011915	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011916	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011917	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011918	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011919	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011920	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011921	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011922	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011923	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011924	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011925	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011926	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011927	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011928	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011929	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011930	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011931	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011932	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011933	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011934	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011935	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011936	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011937	0.0040816327	3.66	0.85	1.70

SRCPARAM L0011938	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011939	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011940	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011941	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011942	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011943	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011944	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011945	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011946	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011947	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011948	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011949	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011950	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011951	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011952	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011953	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011954	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011955	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011956	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011957	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011958	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011959	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011960	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011961	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011962	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011963	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011964	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011965	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011966	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011967	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011968	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011969	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011970	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011971	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011972	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011973	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011974	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011975	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011976	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011977	0.0040816327	3.66	0.85	1.70
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SRCPARAM L0011980	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011981	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011982	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011983	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011984	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011985	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011986	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011987	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011988	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011989	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011990	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011991	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011992	0.0040816327	3.66	0.85	1.70

SRCPARAM L0011993	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011994	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011995	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011996	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011997	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011998	0.0040816327	3.66	0.85	1.70
SRCPARAM L0011999	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012000	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012001	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012002	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012003	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012004	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012005	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012006	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012007	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012008	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012009	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012010	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012011	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012012	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012013	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012014	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012015	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012016	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012017	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012018	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012019	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012020	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012021	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012022	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012023	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012024	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012025	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012026	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012027	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012028	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012029	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012030	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012031	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012032	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012033	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012034	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012035	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012036	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012037	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012038	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012039	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012040	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012041	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012042	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012043	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012044	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012045	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012046	0.0040816327	3.66	0.85	1.70
SRCPARAM L0012047	0.0040816327	3.66	0.85	1.70

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SRCPARAM L0013815	0.0038314176	3.64	0.85	1.70
SRCPARAM L0013816	0.0038314176	3.58	0.85	1.70
SRCPARAM L0013817	0.0038314176	3.53	0.85	1.70
SRCPARAM L0013818	0.0038314176	3.48	0.85	1.70
SRCPARAM L0013819	0.0038314176	3.43	0.85	1.70
SRCPARAM L0013820	0.0038314176	3.38	0.85	1.70
SRCPARAM L0013821	0.0038314176	3.33	0.85	1.70
SRCPARAM L0013822	0.0038314176	3.28	0.85	1.70
SRCPARAM L0013823	0.0038314176	3.23	0.85	1.70
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SRCPARAM L0013838	0.0038314176	2.47	0.85	1.70
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SRCPARAM L0013847	0.0038314176	2.01	0.85	1.70
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SRCGROUP SLINE5 L0011282 L0011283 L0011284 L0011285 L0011286 L0011287
SRCGROUP SLINE5 L0011288 L0011289 L0011290 L0011291 L0011292 L0011293
SRCGROUP SLINE5 L0011294 L0011295 L0011296 L0011297 L0011298 L0011299
SRCGROUP SLINE5 L0011300 L0011301 L0011302 L0011303 L0011304 L0011305
SRCGROUP SLINE5 L0011306 L0011307 L0011308 L0011309 L0011310 L0011311
SRCGROUP SLINE5 L0011312 L0011313 L0011314 L0011315 L0011316 L0011317
SRCGROUP SLINE5 L0011318 L0011319 L0011320 L0011321 L0011322 L0011323
SRCGROUP SLINE5 L0011324 L0011325 L0011326 L0011327 L0011328 L0011329
SRCGROUP SLINE5 L0011330 L0011331 L0011332 L0011333 L0011334 L0011335
SRCGROUP SLINE5 L0011336 L0011337 L0011338 L0011339 L0011340 L0011341
SRCGROUP SLINE5 L0011342 L0011343 L0011344 L0011345 L0011346 L0011347
SRCGROUP SLINE5 L0011348 L0011349 L0011350 L0011351 L0011352 L0011353
SRCGROUP SLINE5 L0011354 L0011355 L0011356 L0011357 L0011358 L0011359
SRCGROUP SLINE5 L0011360 L0011361 L0011362 L0011363 L0011364 L0011365
SRCGROUP SLINE5 L0011366 L0011367 L0011368 L0011369 L0011370 L0011371
SRCGROUP SLINE5 L0011372 L0011373 L0011374 L0011375 L0011376 L0011377
SRCGROUP SLINE5 L0011378 L0011379 L0011380 L0011381 L0011382 L0011383
SRCGROUP SLINE5 L0011384 L0011385 L0011386 L0011387 L0011388 L0011389
SRCGROUP SLINE5 L0011390 L0011391 L0011392 L0011393 L0011394
SRCGROUP SLINE6 L0011395 L0011396 L0011397 L0011398 L0011399 L0011400
SRCGROUP SLINE6 L0011401 L0011402 L0011403 L0011404 L0011405 L0011406
SRCGROUP SLINE6 L0011407 L0011408 L0011409 L0011410 L0011411 L0011412
SRCGROUP SLINE6 L0011413 L0011414 L0011415 L0011416 L0011417 L0011418
SRCGROUP SLINE6 L0011419 L0011420 L0011421 L0011422 L0011423 L0011424
SRCGROUP SLINE6 L0011425 L0011426 L0011427 L0011428 L0011429 L0011430

SRCGROUP SLINE6 L0011431 L0011432 L0011433 L0011434 L0011435 L0011436
SRCGROUP SLINE6 L0011437 L0011438 L0011439 L0011440 L0011441 L0011442
SRCGROUP SLINE6 L0011443 L0011444 L0011445 L0011446 L0011447 L0011448
SRCGROUP SLINE6 L0011449 L0011450 L0011451 L0011452 L0011453 L0011454
SRCGROUP SLINE6 L0011455 L0011456 L0011457 L0011458 L0011459 L0011460
SRCGROUP SLINE6 L0011461 L0011462 L0011463 L0011464 L0011465 L0011466
SRCGROUP SLINE6 L0011467 L0011468 L0011469 L0011470 L0011471 L0011472
SRCGROUP SLINE6 L0011473 L0011474 L0011475 L0011476 L0011477 L0011478
SRCGROUP SLINE6 L0011479 L0011480 L0011481 L0011482 L0011483 L0011484
SRCGROUP SLINE6 L0011485 L0011486 L0011487 L0011488 L0011489 L0011490
SRCGROUP SLINE6 L0011491 L0011492 L0011493 L0011494 L0011495 L0011496
SRCGROUP SLINE6 L0011497 L0011498 L0011499 L0011500 L0011501 L0011502
SRCGROUP SLINE6 L0011503 L0011504 L0011505 L0011506 L0011507 L0011508
SRCGROUP SLINE6 L0011509 L0011510 L0011511 L0011512 L0011513 L0011514
SRCGROUP SLINE6 L0011515 L0011516 L0011517 L0011518 L0011519 L0011520
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SRCGROUP SLINE6 L0011527 L0011528 L0011529 L0011530 L0011531 L0011532
SRCGROUP SLINE6 L0011533 L0011534 L0011535 L0011536 L0011537 L0011538
SRCGROUP SLINE6 L0011539 L0011540 L0011541 L0011542 L0011543 L0011544
SRCGROUP SLINE6 L0011545 L0011546 L0011547 L0011548 L0011549 L0011550
SRCGROUP SLINE7 L0011551 L0011552 L0011553 L0011554 L0011555 L0011556
SRCGROUP SLINE7 L0011557 L0011558 L0011559 L0011560 L0011561 L0011562
SRCGROUP SLINE7 L0011563 L0011564 L0011565 L0011566 L0011567 L0011568
SRCGROUP SLINE7 L0011569 L0011570 L0011571 L0011572 L0011573 L0011574
SRCGROUP SLINE7 L0011575 L0011576 L0011577 L0011578 L0011579 L0011580
SRCGROUP SLINE7 L0011581 L0011582 L0011583 L0011584 L0011585 L0011586
SRCGROUP SLINE7 L0011587 L0011588 L0011589 L0011590 L0011591 L0011592
SRCGROUP SLINE7 L0011593 L0011594 L0011595 L0011596 L0011597 L0011598
SRCGROUP SLINE7 L0011599 L0011600 L0011601 L0011602 L0011603 L0011604
SRCGROUP SLINE7 L0011605 L0011606 L0011607 L0011608 L0011609 L0011610
SRCGROUP SLINE7 L0011611 L0011612 L0011613 L0011614 L0011615 L0011616
SRCGROUP SLINE7 L0011617 L0011618 L0011619 L0011620 L0011621 L0011622
SRCGROUP SLINE7 L0011623 L0011624 L0011625 L0011626 L0011627 L0011628
SRCGROUP SLINE7 L0011629 L0011630 L0011631 L0011632 L0011633 L0011634
SRCGROUP SLINE7 L0011635 L0011636 L0011637 L0011638 L0011639 L0011640
SRCGROUP SLINE7 L0011641 L0011642 L0011643 L0011644 L0011645 L0011646
SRCGROUP SLINE7 L0011647 L0011648 L0011649 L0011650 L0011651 L0011652
SRCGROUP SLINE7 L0011653 L0011654 L0011655 L0011656 L0011657 L0011658
SRCGROUP SLINE7 L0011659 L0011660 L0011661 L0011662 L0011663 L0011664
SRCGROUP SLINE7 L0011665 L0011666 L0011667 L0011668 L0011669 L0011670
SRCGROUP SLINE7 L0011671 L0011672
SRCGROUP SLINE8 L0011673 L0011674 L0011675 L0011676 L0011677 L0011678
SRCGROUP SLINE8 L0011679 L0011680 L0011681 L0011682 L0011683 L0011684
SRCGROUP SLINE8 L0011685 L0011686 L0011687 L0011688 L0011689 L0011690
SRCGROUP SLINE8 L0011691 L0011692 L0011693 L0011694 L0011695 L0011696
SRCGROUP SLINE8 L0011697 L0011698 L0011699 L0011700 L0011701 L0011702
SRCGROUP SLINE8 L0011703 L0011704 L0011705 L0011706 L0011707 L0011708
SRCGROUP SLINE8 L0011709 L0011710 L0011711 L0011712 L0011713 L0011714
SRCGROUP SLINE8 L0011715 L0011716 L0011717 L0011718 L0011719 L0011720
SRCGROUP SLINE8 L0011721 L0011722 L0011723 L0011724 L0011725 L0011726
SRCGROUP SLINE8 L0011727 L0011728 L0011729 L0011730 L0011731 L0011732
SRCGROUP SLINE8 L0011733 L0011734 L0011735 L0011736 L0011737 L0011738
SRCGROUP SLINE8 L0011739 L0011740
SRCGROUP SLINE9 L0011741 L0011742 L0011743 L0011744 L0011745 L0011746
SRCGROUP SLINE9 L0011747 L0011748 L0011749 L0011750 L0011751 L0011752

SRCGROUP SLINE9 L0011753 L0011754 L0011755 L0011756 L0011757 L0011758
SRCGROUP SLINE9 L0011759 L0011760 L0011761 L0011762 L0011763 L0011764
SRCGROUP SLINE9 L0011765 L0011766 L0011767 L0011768 L0011769 L0011770
SRCGROUP SLINE9 L0011771 L0011772 L0011773 L0011774 L0011775 L0011776
SRCGROUP SLINE9 L0011777 L0011778 L0011779 L0011780 L0011781 L0011782
SRCGROUP SLINE9 L0011783 L0011784 L0011785 L0011786 L0011787 L0011788
SRCGROUP SLINE9 L0011789 L0011790 L0011791 L0011792 L0011793 L0011794
SRCGROUP SLINE9 L0011795 L0011796 L0011797 L0011798 L0011799 L0011800
SRCGROUP SLINE9 L0011801
SRCGROUP STCK1 STCK1
SRCGROUP STCK10 STCK10
SRCGROUP STCK11 STCK11
SRCGROUP STCK12 STCK12
SRCGROUP STCK13 STCK13
SRCGROUP STCK14 STCK14
SRCGROUP STCK15 STCK15
SRCGROUP STCK16 STCK16
SRCGROUP STCK17 STCK17
SRCGROUP STCK18 STCK18
SRCGROUP STCK19 STCK19
SRCGROUP STCK2 STCK2
SRCGROUP STCK20 STCK20
SRCGROUP STCK21 STCK21
SRCGROUP STCK22 STCK22
SRCGROUP STCK23 STCK23
SRCGROUP STCK24 STCK24
SRCGROUP STCK25 STCK25
SRCGROUP STCK26 STCK26
SRCGROUP STCK27 STCK27
SRCGROUP STCK28 STCK28
SRCGROUP STCK3 STCK3
SRCGROUP STCK4 STCK4
SRCGROUP STCK5 STCK5
SRCGROUP STCK6 STCK6
SRCGROUP STCK7 STCK7
SRCGROUP STCK8 STCK8
SRCGROUP STCK9 STCK9

SO FINISHED

**

** AERMOD Receptor Pathway

**
**

RE STARTING
INCLUDED SSSC.rou
RE FINISHED

**

** AERMOD Meteorology Pathway

**
**

ME STARTING
SURFFILE AERMET\Stockton_2013-2017.SFC

PROFFILE AERMET\Stockton_2013-2017.PFL
SURFDATA 23237 2013 Stockton
UAIRDATA 23230 2013 OAKLAND/WSO_AP
PROFBASE 8.0 METERS

ME FINISHED

**

** AERMOD Output Pathway

**

**

OU STARTING

RECTABLE ALLAVE 1ST

RECTABLE 1 1ST

** Auto-Generated Plotfiles

PLOTFILE 1 SLINE1 1ST SSCC.AD\01H1G001.PLT 31
PLOTFILE 1 SLINE10 1ST SSCC.AD\01H1G002.PLT 32
PLOTFILE 1 SLINE11 1ST SSCC.AD\01H1G003.PLT 33
PLOTFILE 1 SLINE12 1ST SSCC.AD\01H1G004.PLT 34
PLOTFILE 1 SLINE13 1ST SSCC.AD\01H1G005.PLT 35
PLOTFILE 1 SLINE14 1ST SSCC.AD\01H1G006.PLT 36
PLOTFILE 1 SLINE2 1ST SSCC.AD\01H1G007.PLT 37
PLOTFILE 1 SLINE3 1ST SSCC.AD\01H1G008.PLT 38
PLOTFILE 1 SLINE4 1ST SSCC.AD\01H1G009.PLT 39
PLOTFILE 1 SLINE5 1ST SSCC.AD\01H1G010.PLT 40
PLOTFILE 1 SLINE6 1ST SSCC.AD\01H1G011.PLT 41
PLOTFILE 1 SLINE7 1ST SSCC.AD\01H1G012.PLT 42
PLOTFILE 1 SLINE8 1ST SSCC.AD\01H1G013.PLT 43
PLOTFILE 1 SLINE9 1ST SSCC.AD\01H1G014.PLT 44
PLOTFILE 1 STCK1 1ST SSCC.AD\01H1G015.PLT 45
PLOTFILE 1 STCK10 1ST SSCC.AD\01H1G016.PLT 46
PLOTFILE 1 STCK11 1ST SSCC.AD\01H1G017.PLT 47
PLOTFILE 1 STCK12 1ST SSCC.AD\01H1G018.PLT 48
PLOTFILE 1 STCK13 1ST SSCC.AD\01H1G019.PLT 49
PLOTFILE 1 STCK14 1ST SSCC.AD\01H1G020.PLT 50
PLOTFILE 1 STCK15 1ST SSCC.AD\01H1G021.PLT 51
PLOTFILE 1 STCK16 1ST SSCC.AD\01H1G022.PLT 52
PLOTFILE 1 STCK17 1ST SSCC.AD\01H1G023.PLT 53
PLOTFILE 1 STCK18 1ST SSCC.AD\01H1G024.PLT 54
PLOTFILE 1 STCK19 1ST SSCC.AD\01H1G025.PLT 55
PLOTFILE 1 STCK2 1ST SSCC.AD\01H1G026.PLT 56
PLOTFILE 1 STCK20 1ST SSCC.AD\01H1G027.PLT 57
PLOTFILE 1 STCK21 1ST SSCC.AD\01H1G028.PLT 58
PLOTFILE 1 STCK22 1ST SSCC.AD\01H1G029.PLT 59
PLOTFILE 1 STCK23 1ST SSCC.AD\01H1G030.PLT 60
PLOTFILE 1 STCK24 1ST SSCC.AD\01H1G031.PLT 61
PLOTFILE 1 STCK25 1ST SSCC.AD\01H1G032.PLT 62
PLOTFILE 1 STCK26 1ST SSCC.AD\01H1G033.PLT 63
PLOTFILE 1 STCK27 1ST SSCC.AD\01H1G034.PLT 64
PLOTFILE 1 STCK28 1ST SSCC.AD\01H1G035.PLT 65
PLOTFILE 1 STCK3 1ST SSCC.AD\01H1G036.PLT 66
PLOTFILE 1 STCK4 1ST SSCC.AD\01H1G037.PLT 67
PLOTFILE 1 STCK5 1ST SSCC.AD\01H1G038.PLT 68
PLOTFILE 1 STCK6 1ST SSCC.AD\01H1G039.PLT 69
PLOTFILE 1 STCK7 1ST SSCC.AD\01H1G040.PLT 70

PLOTFILE 1 STCK8 1ST SSCC.AD\01H1G041.PLT 71
PLOTFILE 1 STCK9 1ST SSCC.AD\01H1G042.PLT 72
PLOTFILE PERIOD SLINE1 SSCC.AD\PE00G001.PLT 73
PLOTFILE PERIOD SLINE10 SSCC.AD\PE00G002.PLT 74
PLOTFILE PERIOD SLINE11 SSCC.AD\PE00G003.PLT 75
PLOTFILE PERIOD SLINE12 SSCC.AD\PE00G004.PLT 76
PLOTFILE PERIOD SLINE13 SSCC.AD\PE00G005.PLT 77
PLOTFILE PERIOD SLINE14 SSCC.AD\PE00G006.PLT 78
PLOTFILE PERIOD SLINE2 SSCC.AD\PE00G007.PLT 79
PLOTFILE PERIOD SLINE3 SSCC.AD\PE00G008.PLT 80
PLOTFILE PERIOD SLINE4 SSCC.AD\PE00G009.PLT 81
PLOTFILE PERIOD SLINE5 SSCC.AD\PE00G010.PLT 82
PLOTFILE PERIOD SLINE6 SSCC.AD\PE00G011.PLT 83
PLOTFILE PERIOD SLINE7 SSCC.AD\PE00G012.PLT 84
PLOTFILE PERIOD SLINE8 SSCC.AD\PE00G013.PLT 85
PLOTFILE PERIOD SLINE9 SSCC.AD\PE00G014.PLT 86
PLOTFILE PERIOD STCK1 SSCC.AD\PE00G015.PLT 87
PLOTFILE PERIOD STCK10 SSCC.AD\PE00G016.PLT 88
PLOTFILE PERIOD STCK11 SSCC.AD\PE00G017.PLT 89
PLOTFILE PERIOD STCK12 SSCC.AD\PE00G018.PLT 90
PLOTFILE PERIOD STCK13 SSCC.AD\PE00G019.PLT 91
PLOTFILE PERIOD STCK14 SSCC.AD\PE00G020.PLT 92
PLOTFILE PERIOD STCK15 SSCC.AD\PE00G021.PLT 93
PLOTFILE PERIOD STCK16 SSCC.AD\PE00G022.PLT 94
PLOTFILE PERIOD STCK17 SSCC.AD\PE00G023.PLT 95
PLOTFILE PERIOD STCK18 SSCC.AD\PE00G024.PLT 96
PLOTFILE PERIOD STCK19 SSCC.AD\PE00G025.PLT 97
PLOTFILE PERIOD STCK2 SSCC.AD\PE00G026.PLT 98
PLOTFILE PERIOD STCK20 SSCC.AD\PE00G027.PLT 99
PLOTFILE PERIOD STCK21 SSCC.AD\PE00G028.PLT 100
PLOTFILE PERIOD STCK22 SSCC.AD\PE00G029.PLT 101
PLOTFILE PERIOD STCK23 SSCC.AD\PE00G030.PLT 102
PLOTFILE PERIOD STCK24 SSCC.AD\PE00G031.PLT 103
PLOTFILE PERIOD STCK25 SSCC.AD\PE00G032.PLT 104
PLOTFILE PERIOD STCK26 SSCC.AD\PE00G033.PLT 105
PLOTFILE PERIOD STCK27 SSCC.AD\PE00G034.PLT 106
PLOTFILE PERIOD STCK28 SSCC.AD\PE00G035.PLT 107
PLOTFILE PERIOD STCK3 SSCC.AD\PE00G036.PLT 108
PLOTFILE PERIOD STCK4 SSCC.AD\PE00G037.PLT 109
PLOTFILE PERIOD STCK5 SSCC.AD\PE00G038.PLT 110
PLOTFILE PERIOD STCK6 SSCC.AD\PE00G039.PLT 111
PLOTFILE PERIOD STCK7 SSCC.AD\PE00G040.PLT 112
PLOTFILE PERIOD STCK8 SSCC.AD\PE00G041.PLT 113
PLOTFILE PERIOD STCK9 SSCC.AD\PE00G042.PLT 114
SUMMFILE SSCC.sum
OU FINISHED

*** Message Summary For AERMOD Model Setup ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 30 Warning Message(s)
A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

SO W320	7476	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	7478	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	7480	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	7482	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	7484	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	7486	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	7488	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	7490	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	7492	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	7494	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	7496	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	7498	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	7500	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	7502	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
ME W186	9189	MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used	0.50
ME W187	9189	MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET	
OU W565	9270	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9271	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9272	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9273	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9274	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9275	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9276	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9277	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9278	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9279	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9280	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9281	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9282	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9283	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE

*** SETUP Finishes Successfully ***

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

*** 12:37:56

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY ***

-- **Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --

**NO GAS DEPOSITION Data Provided.

****NO PARTICLE DEPOSITION Data Provided.**

****Model Uses NO DRY DEPLETION. DRYDPLT = F**

****Model Uses NO WET DEPLETION. WETDPLT = F**

****Model Uses RURAL Dispersion Only.**

****Model Uses Regulatory DEFAULT Options:**

1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

****Other Options Specified:**

ADJ_U* - Use ADJ_U* option for SBL in AERMET
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions

****Model Assumes No FLAGPOLE Receptor Heights.**

****The User Specified a Pollutant Type of: OTHER**

****Model Calculates 1 Short Term Average(s) of: 1-HR
and Calculates PERIOD Averages**

****This Run Includes: 4077 Source(s); 42 Source Group(s); and 148 Receptor(s)**

with: 28 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 4049 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

****Model Set To Continue RUNning After the Setup Testing.**

****The AERMET Input Meteorological Data Version Date: 18081**

****Output Options Selected:**

Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

****NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours**

****Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 8.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3**

**Approximate Storage Requirements of Model = 6.1 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: SSCC.err

**File for Summary of Results: SSCC.sum

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** POINT SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	STACK	STACK	STACK	STACK	BLDG	URBAN	
CAP/	EMIS RATE								
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	TEMP.	EXIT VEL.	DIAMETER	EXISTS
SOURCE HOR	SCALAR								
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(DEG.K)	(M/SEC)	(METERS)	
VARY BY									

STCK1	0	0.10000E+01	654520.9	4194293.9	7.6	3.66	366.00	57.10	0.10	NO	NO	NO
STCK15	0	0.10000E+01	654520.9	4194293.9	7.6	3.96	501.00	49.00	0.04	NO	NO	NO
STCK2	0	0.10000E+01	654609.9	4194184.3	7.5	12.00	366.00	57.10	0.10	NO	NO	NO
STCK16	0	0.10000E+01	654609.9	4194184.3	7.5	3.96	501.00	49.00	0.04	NO	NO	NO
STCK3	0	0.10000E+01	654835.4	4194416.0	7.7	3.66	366.00	57.10	0.10	NO	NO	NO
STCK17	0	0.10000E+01	654835.4	4194416.0	7.7	3.96	501.00	49.00	0.04	NO	NO	NO
STCK4	0	0.10000E+01	654920.2	4194252.5	7.5	3.66	366.00	57.10	0.10	NO	NO	NO
STCK18	0	0.10000E+01	654920.2	4194252.5	7.5	3.96	501.00	49.00	0.04	NO	NO	NO
STCK5	0	0.10000E+01	655139.5	4194449.1	7.9	3.66	366.00	57.10	0.10	NO	NO	NO
STCK19	0	0.10000E+01	655139.5	4194449.1	7.9	3.96	501.00	49.00	0.04	NO	NO	NO
STCK6	0	0.10000E+01	655259.5	4194277.4	8.0	3.66	366.00	57.10	0.10	NO	NO	NO
STCK20	0	0.10000E+01	655259.5	4194277.4	8.0	3.96	501.00	49.00	0.04	NO	NO	NO
STCK7	0	0.10000E+01	655476.8	4194571.1	8.4	3.66	366.00	57.10	0.10	NO	NO	NO
STCK21	0	0.10000E+01	655476.8	4194571.1	8.4	3.96	501.00	49.00	0.04	NO	NO	NO
STCK8	0	0.10000E+01	655582.3	4194298.0	8.5	3.66	366.00	57.10	0.10	NO	NO	NO
STCK22	0	0.10000E+01	655582.3	4194298.0	8.5	3.96	501.00	49.00	0.04	NO	NO	NO
STCK9	0	0.10000E+01	655998.1	4194151.2	9.0	3.66	366.00	57.10	0.10	NO	NO	NO
STCK23	0	0.10000E+01	655998.1	4194151.2	9.0	3.96	501.00	49.00	0.04	NO	NO	NO
STCK10	0	0.10000E+01	656316.7	4194128.4	9.4	3.66	366.00	57.10	0.10	NO	NO	NO
STCK24	0	0.10000E+01	656316.7	4194128.4	9.4	3.96	501.00	49.00	0.04	NO	NO	NO
STCK11	0	0.10000E+01	656161.6	4193909.1	9.2	3.66	366.00	57.10	0.10	NO	NO	NO
STCK25	0	0.10000E+01	656161.6	4193909.1	9.2	3.96	501.00	49.00	0.04	NO	NO	NO
STCK12	0	0.10000E+01	655847.1	4193925.6	8.7	3.66	366.00	57.10	0.10	NO	NO	NO
STCK26	0	0.10000E+01	655847.1	4193925.6	8.7	3.96	501.00	49.00	0.04	NO	NO	NO
STCK13	0	0.10000E+01	655559.5	4193921.5	8.2	3.66	366.00	57.10	0.10	NO	NO	NO
STCK27	0	0.10000E+01	655559.5	4193921.5	8.2	3.96	501.00	49.00	0.04	NO	NO	NO
STCK14	0	0.10000E+01	655176.8	4193917.4	7.3	3.66	366.00	57.10	0.10	NO	NO	NO
STCK28	0	0.10000E+01	655176.8	4193917.4	7.3	3.96	501.00	49.00	0.04	NO	NO	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

*** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE SCALAR VARY BY
L0008807	0	0.88496E-03	656503.1	4194000.1	9.8	3.66	0.85	1.70	NO
L0008808	0	0.88496E-03	656501.2	4194000.1	9.8	3.66	0.85	1.70	NO
L0008809	0	0.88496E-03	656499.4	4194000.0	9.8	3.66	0.85	1.70	NO
L0008810	0	0.88496E-03	656497.6	4194000.0	9.8	3.66	0.85	1.70	NO
L0008811	0	0.88496E-03	656495.8	4194000.0	9.8	3.66	0.85	1.70	NO
L0008812	0	0.88496E-03	656493.9	4193999.9	9.8	3.66	0.85	1.70	NO
L0008813	0	0.88496E-03	656492.1	4193999.9	9.8	3.66	0.85	1.70	NO
L0008814	0	0.88496E-03	656490.3	4193999.9	9.8	3.66	0.85	1.70	NO
L0008815	0	0.88496E-03	656488.4	4193999.8	9.8	3.66	0.85	1.70	NO
L0008816	0	0.88496E-03	656486.6	4193999.8	9.8	3.66	0.85	1.70	NO
L0008817	0	0.88496E-03	656484.8	4193999.8	9.8	3.66	0.85	1.70	NO
L0008818	0	0.88496E-03	656483.0	4193999.7	9.8	3.66	0.85	1.70	NO
L0008819	0	0.88496E-03	656481.1	4193999.7	9.8	3.66	0.85	1.70	NO
L0008820	0	0.88496E-03	656479.3	4193999.7	9.8	3.66	0.85	1.70	NO
L0008821	0	0.88496E-03	656477.5	4193999.6	9.7	3.66	0.85	1.70	NO
L0008822	0	0.88496E-03	656475.6	4193999.6	9.7	3.66	0.85	1.70	NO
L0008823	0	0.88496E-03	656473.8	4193999.6	9.7	3.66	0.85	1.70	NO
L0008824	0	0.88496E-03	656472.0	4193999.5	9.7	3.66	0.85	1.70	NO
L0008825	0	0.88496E-03	656470.2	4193999.5	9.7	3.66	0.85	1.70	NO
L0008826	0	0.88496E-03	656468.3	4193999.5	9.7	3.66	0.85	1.70	NO
L0008827	0	0.88496E-03	656466.5	4193999.4	9.7	3.66	0.85	1.70	NO
L0008828	0	0.88496E-03	656464.7	4193999.4	9.7	3.66	0.85	1.70	NO
L0008829	0	0.88496E-03	656462.8	4193999.4	9.7	3.66	0.85	1.70	NO
L0008830	0	0.88496E-03	656461.0	4193999.3	9.7	3.66	0.85	1.70	NO
L0008831	0	0.88496E-03	656459.2	4193999.3	9.7	3.66	0.85	1.70	NO
L0008832	0	0.88496E-03	656457.4	4193999.3	9.7	3.66	0.85	1.70	NO
L0008833	0	0.88496E-03	656455.5	4193999.2	9.7	3.66	0.85	1.70	NO
L0008834	0	0.88496E-03	656453.7	4193999.2	9.7	3.66	0.85	1.70	NO
L0008835	0	0.88496E-03	656451.9	4193999.2	9.7	3.66	0.85	1.70	NO
L0008836	0	0.88496E-03	656450.0	4193999.1	9.7	3.66	0.85	1.70	NO
L0008837	0	0.88496E-03	656448.2	4193999.1	9.7	3.66	0.85	1.70	NO
L0008838	0	0.88496E-03	656446.4	4193999.1	9.7	3.66	0.85	1.70	NO
L0008839	0	0.88496E-03	656444.6	4193999.0	9.7	3.66	0.85	1.70	NO
L0008840	0	0.88496E-03	656442.7	4193999.0	9.7	3.66	0.85	1.70	NO
L0008841	0	0.88496E-03	656440.9	4193999.0	9.7	3.66	0.85	1.70	NO
L0008842	0	0.88496E-03	656439.1	4193998.9	9.7	3.66	0.85	1.70	NO
L0008843	0	0.88496E-03	656437.2	4193998.9	9.7	3.66	0.85	1.70	NO
L0008844	0	0.88496E-03	656435.4	4193998.9	9.7	3.66	0.85	1.70	NO
L0008845	0	0.88496E-03	656433.6	4193998.8	9.6	3.66	0.85	1.70	NO
L0008846	0	0.88496E-03	656431.8	4193998.8	9.6	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

*** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE SCALAR VARY BY
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L0008847	0	0.88496E-03	656429.9	4193998.8	9.6	3.66	0.85	1.70	NO
L0008848	0	0.88496E-03	656428.1	4193998.7	9.6	3.66	0.85	1.70	NO
L0008849	0	0.88496E-03	656426.3	4193998.7	9.6	3.66	0.85	1.70	NO
L0008850	0	0.88496E-03	656424.4	4193998.7	9.6	3.66	0.85	1.70	NO
L0008851	0	0.88496E-03	656422.6	4193998.6	9.6	3.66	0.85	1.70	NO
L0008852	0	0.88496E-03	656420.8	4193998.6	9.6	3.66	0.85	1.70	NO
L0008853	0	0.88496E-03	656419.0	4193998.6	9.6	3.66	0.85	1.70	NO
L0008854	0	0.88496E-03	656417.1	4193998.6	9.6	3.66	0.85	1.70	NO
L0008855	0	0.88496E-03	656415.3	4193998.5	9.6	3.66	0.85	1.70	NO
L0008856	0	0.88496E-03	656413.5	4193998.5	9.6	3.66	0.85	1.70	NO
L0008857	0	0.88496E-03	656411.6	4193998.5	9.6	3.66	0.85	1.70	NO
L0008858	0	0.88496E-03	656409.8	4193998.4	9.6	3.66	0.85	1.70	NO
L0008859	0	0.88496E-03	656408.0	4193998.4	9.6	3.66	0.85	1.70	NO
L0008860	0	0.88496E-03	656406.2	4193998.4	9.6	3.66	0.85	1.70	NO
L0008861	0	0.88496E-03	656404.3	4193998.3	9.6	3.66	0.85	1.70	NO
L0008862	0	0.88496E-03	656402.5	4193998.3	9.6	3.66	0.85	1.70	NO
L0008863	0	0.88496E-03	656400.7	4193998.3	9.6	3.66	0.85	1.70	NO
L0008864	0	0.88496E-03	656398.8	4193998.2	9.6	3.66	0.85	1.70	NO
L0008865	0	0.88496E-03	656397.0	4193998.2	9.6	3.66	0.85	1.70	NO
L0008866	0	0.88496E-03	656395.2	4193998.2	9.6	3.66	0.85	1.70	NO
L0008867	0	0.88496E-03	656393.4	4193998.1	9.6	3.66	0.85	1.70	NO
L0008868	0	0.88496E-03	656391.5	4193998.1	9.6	3.66	0.85	1.70	NO
L0008869	0	0.88496E-03	656389.7	4193998.1	9.6	3.66	0.85	1.70	NO
L0008870	0	0.88496E-03	656387.9	4193998.0	9.6	3.66	0.85	1.70	NO
L0008871	0	0.88496E-03	656386.0	4193998.0	9.6	3.66	0.85	1.70	NO
L0008872	0	0.88496E-03	656384.2	4193998.0	9.6	3.66	0.85	1.70	NO
L0008873	0	0.88496E-03	656382.4	4193997.9	9.6	3.66	0.85	1.70	NO
L0008874	0	0.88496E-03	656380.6	4193997.9	9.6	3.66	0.85	1.70	NO
L0008875	0	0.88496E-03	656378.7	4193997.9	9.6	3.66	0.85	1.70	NO
L0008876	0	0.88496E-03	656376.9	4193997.8	9.6	3.66	0.85	1.70	NO
L0008877	0	0.88496E-03	656375.1	4193997.8	9.5	3.66	0.85	1.70	NO
L0008878	0	0.88496E-03	656373.2	4193997.8	9.5	3.66	0.85	1.70	NO
L0008879	0	0.88496E-03	656371.4	4193997.7	9.5	3.66	0.85	1.70	NO
L0008880	0	0.88496E-03	656369.6	4193997.7	9.5	3.66	0.85	1.70	NO
L0008881	0	0.88496E-03	656367.8	4193997.7	9.5	3.66	0.85	1.70	NO
L0008882	0	0.88496E-03	656365.9	4193997.6	9.5	3.66	0.85	1.70	NO
L0008883	0	0.88496E-03	656364.1	4193997.6	9.5	3.66	0.85	1.70	NO
L0008884	0	0.88496E-03	656362.3	4193997.6	9.5	3.66	0.85	1.70	NO
L0008885	0	0.88496E-03	656360.4	4193997.5	9.5	3.66	0.85	1.70	NO
L0008886	0	0.88496E-03	656358.6	4193997.5	9.5	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

*** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE SCALAR VARY BY
L0008887	0	0.88496E-03	656356.8	4193997.5	9.5	3.66	0.85	1.70	NO
L0008888	0	0.88496E-03	656355.0	4193997.4	9.5	3.66	0.85	1.70	NO
L0008889	0	0.88496E-03	656353.1	4193997.4	9.5	3.66	0.85	1.70	NO
L0008890	0	0.88496E-03	656351.3	4193997.4	9.5	3.66	0.85	1.70	NO
L0008891	0	0.88496E-03	656349.5	4193997.3	9.5	3.66	0.85	1.70	NO
L0008892	0	0.88496E-03	656347.6	4193997.3	9.5	3.66	0.85	1.70	NO
L0008893	0	0.88496E-03	656345.8	4193997.3	9.5	3.66	0.85	1.70	NO
L0008894	0	0.88496E-03	656344.0	4193997.2	9.5	3.66	0.85	1.70	NO
L0008895	0	0.88496E-03	656342.2	4193997.2	9.5	3.66	0.85	1.70	NO
L0008896	0	0.88496E-03	656340.3	4193997.2	9.5	3.66	0.85	1.70	NO
L0008897	0	0.88496E-03	656338.5	4193997.1	9.5	3.66	0.85	1.70	NO
L0008898	0	0.88496E-03	656336.7	4193997.1	9.5	3.66	0.85	1.70	NO
L0008899	0	0.88496E-03	656334.8	4193997.1	9.5	3.66	0.85	1.70	NO
L0008900	0	0.88496E-03	656333.0	4193997.0	9.5	3.66	0.85	1.70	NO
L0008901	0	0.88496E-03	656331.2	4193997.0	9.5	3.66	0.85	1.70	NO
L0008902	0	0.88496E-03	656329.4	4193997.0	9.5	3.66	0.85	1.70	NO
L0008903	0	0.88496E-03	656327.5	4193997.0	9.5	3.66	0.85	1.70	NO
L0008904	0	0.88496E-03	656325.7	4193996.9	9.5	3.66	0.85	1.70	NO
L0008905	0	0.88496E-03	656323.9	4193996.9	9.5	3.66	0.85	1.70	NO
L0008906	0	0.88496E-03	656322.0	4193996.9	9.5	3.66	0.85	1.70	NO
L0008907	0	0.88496E-03	656320.2	4193996.8	9.5	3.66	0.85	1.70	NO
L0008908	0	0.88496E-03	656318.4	4193996.8	9.5	3.66	0.85	1.70	NO
L0008909	0	0.88496E-03	656316.6	4193996.8	9.5	3.66	0.85	1.70	NO
L0008910	0	0.88496E-03	656314.7	4193996.7	9.5	3.66	0.85	1.70	NO
L0008911	0	0.88496E-03	656312.9	4193996.7	9.4	3.66	0.85	1.70	NO
L0008912	0	0.88496E-03	656311.1	4193996.7	9.4	3.66	0.85	1.70	NO
L0008913	0	0.88496E-03	656309.2	4193996.6	9.4	3.66	0.85	1.70	NO
L0008914	0	0.88496E-03	656307.4	4193996.6	9.4	3.66	0.85	1.70	NO
L0008915	0	0.88496E-03	656305.6	4193996.6	9.4	3.66	0.85	1.70	NO
L0008916	0	0.88496E-03	656303.8	4193996.5	9.4	3.66	0.85	1.70	NO
L0008917	0	0.88496E-03	656301.9	4193996.5	9.4	3.66	0.85	1.70	NO
L0008918	0	0.88496E-03	656300.1	4193996.5	9.4	3.66	0.85	1.70	NO
L0008919	0	0.88496E-03	656298.3	4193996.4	9.4	3.66	0.85	1.70	NO
L0008920	0	0.88496E-03	656296.5	4193996.4	9.4	3.66	0.85	1.70	NO
L0008921	0	0.88496E-03	656294.6	4193996.4	9.4	3.66	0.85	1.70	NO
L0008922	0	0.88496E-03	656292.8	4193996.3	9.4	3.66	0.85	1.70	NO
L0008923	0	0.88496E-03	656291.0	4193996.3	9.4	3.66	0.85	1.70	NO
L0008924	0	0.88496E-03	656289.1	4193996.3	9.4	3.66	0.85	1.70	NO
L0008925	0	0.88496E-03	656287.3	4193996.2	9.4	3.66	0.85	1.70	NO
L0008926	0	0.88496E-03	656285.5	4193996.2	9.4	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

*** 12:37:56

PAGE 6

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE (METERS)	EMISSION RATE SCALAR VARY BY
L0008927	0	0.88496E-03	656283.7	4193996.2	9.4	3.66	0.85	1.70	NO	
L0008928	0	0.88496E-03	656281.8	4193996.1	9.4	3.66	0.85	1.70	NO	
L0008929	0	0.88496E-03	656280.0	4193996.1	9.4	3.66	0.85	1.70	NO	
L0008930	0	0.88496E-03	656278.2	4193996.1	9.4	3.66	0.85	1.70	NO	
L0008931	0	0.88496E-03	656276.3	4193996.0	9.4	3.66	0.85	1.70	NO	
L0008932	0	0.88496E-03	656274.5	4193996.0	9.4	3.66	0.85	1.70	NO	
L0008933	0	0.88496E-03	656272.7	4193996.0	9.4	3.66	0.85	1.70	NO	
L0008934	0	0.88496E-03	656270.9	4193995.9	9.4	3.66	0.85	1.70	NO	
L0008935	0	0.88496E-03	656269.0	4193995.9	9.4	3.66	0.85	1.70	NO	
L0008936	0	0.88496E-03	656267.2	4193995.9	9.4	3.66	0.85	1.70	NO	
L0008937	0	0.88496E-03	656265.4	4193995.8	9.4	3.66	0.85	1.70	NO	
L0008938	0	0.88496E-03	656263.5	4193995.8	9.4	3.66	0.85	1.70	NO	
L0008939	0	0.88496E-03	656261.7	4193995.8	9.4	3.66	0.85	1.70	NO	
L0008940	0	0.88496E-03	656259.9	4193995.7	9.4	3.66	0.85	1.70	NO	
L0008941	0	0.88496E-03	656258.1	4193995.7	9.4	3.66	0.85	1.70	NO	
L0008942	0	0.88496E-03	656256.2	4193995.7	9.4	3.66	0.85	1.70	NO	
L0008943	0	0.88496E-03	656254.4	4193995.6	9.4	3.66	0.85	1.70	NO	
L0008944	0	0.88496E-03	656252.6	4193995.6	9.4	3.66	0.85	1.70	NO	
L0008945	0	0.88496E-03	656250.7	4193995.6	9.4	3.66	0.85	1.70	NO	
L0008946	0	0.88496E-03	656248.9	4193995.5	9.4	3.66	0.85	1.70	NO	
L0008947	0	0.88496E-03	656247.1	4193995.5	9.4	3.66	0.85	1.70	NO	
L0008948	0	0.88496E-03	656245.3	4193995.5	9.4	3.66	0.85	1.70	NO	
L0008949	0	0.88496E-03	656243.4	4193995.4	9.4	3.66	0.85	1.70	NO	
L0008950	0	0.88496E-03	656241.6	4193995.4	9.4	3.66	0.85	1.70	NO	
L0008951	0	0.88496E-03	656239.8	4193995.4	9.4	3.66	0.85	1.70	NO	
L0008952	0	0.88496E-03	656237.9	4193995.3	9.4	3.66	0.85	1.70	NO	
L0008953	0	0.88496E-03	656236.1	4193995.3	9.4	3.66	0.85	1.70	NO	
L0008954	0	0.88496E-03	656234.3	4193995.3	9.3	3.66	0.85	1.70	NO	
L0008955	0	0.88496E-03	656232.5	4193995.3	9.3	3.66	0.85	1.70	NO	
L0008956	0	0.88496E-03	656230.6	4193995.2	9.3	3.66	0.85	1.70	NO	
L0008957	0	0.88496E-03	656228.8	4193995.2	9.3	3.66	0.85	1.70	NO	
L0008958	0	0.88496E-03	656227.0	4193995.2	9.3	3.66	0.85	1.70	NO	
L0008959	0	0.88496E-03	656225.1	4193995.1	9.3	3.66	0.85	1.70	NO	
L0008960	0	0.88496E-03	656223.3	4193995.1	9.3	3.66	0.85	1.70	NO	
L0008961	0	0.88496E-03	656221.5	4193995.1	9.3	3.66	0.85	1.70	NO	
L0008962	0	0.88496E-03	656219.7	4193995.0	9.3	3.66	0.85	1.70	NO	
L0008963	0	0.88496E-03	656217.8	4193995.0	9.3	3.66	0.85	1.70	NO	
L0008964	0	0.88496E-03	656216.0	4193995.0	9.3	3.66	0.85	1.70	NO	
L0008965	0	0.88496E-03	656214.2	4193994.9	9.3	3.66	0.85	1.70	NO	
L0008966	0	0.88496E-03	656212.3	4193994.9	9.3	3.66	0.85	1.70	NO	

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION	RATE		BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION	RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY
	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY

L0008967	0	0.88496E-03	656210.5	4193994.9	9.3	3.66	0.85	1.70	NO		
L0008968	0	0.88496E-03	656208.7	4193994.8	9.3	3.66	0.85	1.70	NO		
L0008969	0	0.88496E-03	656206.9	4193994.8	9.3	3.66	0.85	1.70	NO		
L0008970	0	0.88496E-03	656205.0	4193994.8	9.3	3.66	0.85	1.70	NO		
L0008971	0	0.88496E-03	656203.2	4193994.7	9.3	3.66	0.85	1.70	NO		
L0008972	0	0.88496E-03	656201.4	4193994.7	9.3	3.66	0.85	1.70	NO		
L0008973	0	0.88496E-03	656199.5	4193994.7	9.3	3.66	0.85	1.70	NO		
L0008974	0	0.88496E-03	656197.7	4193994.6	9.3	3.66	0.85	1.70	NO		
L0008975	0	0.88496E-03	656195.9	4193994.6	9.3	3.66	0.85	1.70	NO		
L0008976	0	0.88496E-03	656194.1	4193994.6	9.3	3.66	0.85	1.70	NO		
L0008977	0	0.88496E-03	656192.2	4193994.5	9.3	3.66	0.85	1.70	NO		
L0008978	0	0.88496E-03	656190.4	4193994.5	9.3	3.66	0.85	1.70	NO		
L0008979	0	0.88496E-03	656188.6	4193994.5	9.3	3.66	0.85	1.70	NO		
L0008980	0	0.88496E-03	656186.7	4193994.4	9.3	3.66	0.85	1.70	NO		
L0008981	0	0.88496E-03	656184.9	4193994.4	9.3	3.66	0.85	1.70	NO		
L0008982	0	0.88496E-03	656183.1	4193994.4	9.3	3.66	0.85	1.70	NO		
L0008983	0	0.88496E-03	656181.3	4193994.3	9.3	3.66	0.85	1.70	NO		
L0008984	0	0.88496E-03	656179.4	4193994.3	9.3	3.66	0.85	1.70	NO		
L0008985	0	0.88496E-03	656177.6	4193994.3	9.3	3.66	0.85	1.70	NO		
L0008986	0	0.88496E-03	656175.8	4193994.2	9.3	3.66	0.85	1.70	NO		
L0008987	0	0.88496E-03	656173.9	4193994.2	9.2	3.66	0.85	1.70	NO		
L0008988	0	0.88496E-03	656172.1	4193994.2	9.2	3.66	0.85	1.70	NO		
L0008989	0	0.88496E-03	656170.3	4193994.1	9.2	3.66	0.85	1.70	NO		
L0008990	0	0.88496E-03	656168.5	4193994.1	9.2	3.66	0.85	1.70	NO		
L0008991	0	0.88496E-03	656166.6	4193994.1	9.2	3.66	0.85	1.70	NO		
L0008992	0	0.88496E-03	656164.8	4193994.0	9.2	3.66	0.85	1.70	NO		
L0008993	0	0.88496E-03	656163.0	4193994.0	9.2	3.66	0.85	1.70	NO		
L0008994	0	0.88496E-03	656161.1	4193994.0	9.2	3.66	0.85	1.70	NO		
L0008995	0	0.88496E-03	656159.3	4193993.9	9.2	3.66	0.85	1.70	NO		
L0008996	0	0.88496E-03	656157.5	4193993.9	9.2	3.66	0.85	1.70	NO		
L0008997	0	0.88496E-03	656155.7	4193993.9	9.2	3.66	0.85	1.70	NO		
L0008998	0	0.88496E-03	656153.8	4193993.8	9.2	3.66	0.85	1.70	NO		
L0008999	0	0.88496E-03	656152.0	4193993.8	9.2	3.66	0.85	1.70	NO		
L0009000	0	0.88496E-03	656150.2	4193993.8	9.2	3.66	0.85	1.70	NO		
L0009001	0	0.88496E-03	656148.3	4193993.7	9.2	3.66	0.85	1.70	NO		
L0009002	0	0.88496E-03	656146.5	4193993.7	9.2	3.66	0.85	1.70	NO		
L0009003	0	0.88496E-03	656144.7	4193993.7	9.2	3.66	0.85	1.70	NO		
L0009004	0	0.88496E-03	656142.9	4193993.6	9.2	3.66	0.85	1.70	NO		
L0009005	0	0.88496E-03	656141.0	4193993.6	9.2	3.66	0.85	1.70	NO		
L0009006	0	0.88496E-03	656139.2	4193993.6	9.2	3.66	0.85	1.70	NO		

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION	RATE		BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION	RATE
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SOURCE ID	PART. CATS.	(GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	SOURCE SCALAR VARY BY
L0009007	0	0.88496E-03	656137.4	4193993.6	9.2	3.66	0.85	1.70	NO
L0009008	0	0.88496E-03	656135.5	4193993.5	9.2	3.66	0.85	1.70	NO
L0009009	0	0.88496E-03	656133.7	4193993.5	9.2	3.66	0.85	1.70	NO
L0009010	0	0.88496E-03	656131.9	4193993.5	9.2	3.66	0.85	1.70	NO
L0009011	0	0.88496E-03	656130.1	4193993.4	9.2	3.66	0.85	1.70	NO
L0009012	0	0.88496E-03	656128.2	4193993.4	9.2	3.66	0.85	1.70	NO
L0009013	0	0.88496E-03	656126.4	4193993.4	9.2	3.66	0.85	1.70	NO
L0009014	0	0.88496E-03	656124.6	4193993.3	9.2	3.66	0.85	1.70	NO
L0009015	0	0.88496E-03	656122.7	4193993.3	9.2	3.66	0.85	1.70	NO
L0009016	0	0.88496E-03	656120.9	4193993.3	9.2	3.66	0.85	1.70	NO
L0009017	0	0.88496E-03	656119.1	4193993.2	9.2	3.66	0.85	1.70	NO
L0009018	0	0.88496E-03	656117.3	4193993.2	9.2	3.66	0.85	1.70	NO
L0009019	0	0.88496E-03	656115.4	4193993.2	9.2	3.66	0.85	1.70	NO
L0009020	0	0.88496E-03	656113.6	4193993.1	9.2	3.66	0.85	1.70	NO
L0009021	0	0.88496E-03	656111.8	4193993.1	9.2	3.66	0.85	1.70	NO
L0009022	0	0.88496E-03	656109.9	4193993.1	9.2	3.66	0.85	1.70	NO
L0009023	0	0.88496E-03	656108.1	4193993.0	9.2	3.66	0.85	1.70	NO
L0009024	0	0.88496E-03	656106.3	4193993.0	9.1	3.66	0.85	1.70	NO
L0009025	0	0.88496E-03	656104.5	4193993.0	9.1	3.66	0.85	1.70	NO
L0009026	0	0.88496E-03	656102.6	4193992.9	9.1	3.66	0.85	1.70	NO
L0009027	0	0.88496E-03	656100.8	4193992.9	9.1	3.66	0.85	1.70	NO
L0009028	0	0.88496E-03	656099.0	4193992.9	9.1	3.66	0.85	1.70	NO
L0009029	0	0.88496E-03	656097.1	4193992.8	9.1	3.66	0.85	1.70	NO
L0009030	0	0.88496E-03	656095.3	4193992.8	9.1	3.66	0.85	1.70	NO
L0009031	0	0.88496E-03	656093.5	4193992.8	9.1	3.66	0.85	1.70	NO
L0009032	0	0.88496E-03	656091.7	4193992.7	9.1	3.66	0.85	1.70	NO
L0009033	0	0.88496E-03	656089.8	4193992.7	9.1	3.66	0.85	1.70	NO
L0009034	0	0.88496E-03	656088.0	4193992.7	9.1	3.66	0.85	1.70	NO
L0009035	0	0.88496E-03	656086.2	4193992.6	9.1	3.66	0.85	1.70	NO
L0009036	0	0.88496E-03	656084.3	4193992.6	9.1	3.66	0.85	1.70	NO
L0009037	0	0.88496E-03	656082.5	4193992.6	9.1	3.66	0.85	1.70	NO
L0009038	0	0.88496E-03	656080.7	4193992.5	9.1	3.66	0.85	1.70	NO
L0009039	0	0.88496E-03	656078.9	4193992.5	9.1	3.66	0.85	1.70	NO
L0009040	0	0.88496E-03	656077.0	4193992.5	9.1	3.66	0.85	1.70	NO
L0009041	0	0.88496E-03	656075.2	4193992.4	9.1	3.66	0.85	1.70	NO
L0009042	0	0.88496E-03	656073.4	4193992.4	9.1	3.66	0.85	1.70	NO
L0009043	0	0.88496E-03	656071.5	4193992.4	9.1	3.66	0.85	1.70	NO
L0009044	0	0.88496E-03	656069.7	4193992.3	9.1	3.66	0.85	1.70	NO
L0009045	0	0.88496E-03	656067.9	4193992.3	9.1	3.66	0.85	1.70	NO
L0009046	0	0.88496E-03	656066.1	4193992.3	9.1	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ

ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
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L0009047	0	0.88496E-03	656064.2	4193992.2	9.1	3.66	0.85	1.70	NO
L0009048	0	0.88496E-03	656062.4	4193992.2	9.1	3.66	0.85	1.70	NO
L0009049	0	0.88496E-03	656060.6	4193992.2	9.1	3.66	0.85	1.70	NO
L0009050	0	0.88496E-03	656058.7	4193992.1	9.1	3.66	0.85	1.70	NO
L0009051	0	0.88496E-03	656056.9	4193992.1	9.1	3.66	0.85	1.70	NO
L0009052	0	0.88496E-03	656055.1	4193992.1	9.1	3.66	0.85	1.70	NO
L0009053	0	0.88496E-03	656053.3	4193992.0	9.1	3.66	0.85	1.70	NO
L0009054	0	0.88496E-03	656051.4	4193992.0	9.1	3.66	0.85	1.70	NO
L0009055	0	0.88496E-03	656049.6	4193992.0	9.1	3.66	0.85	1.70	NO
L0009056	0	0.88496E-03	656047.8	4193992.0	9.1	3.66	0.85	1.70	NO
L0009057	0	0.88496E-03	656045.9	4193991.9	9.0	3.66	0.85	1.70	NO
L0009058	0	0.88496E-03	656044.1	4193991.9	9.0	3.66	0.85	1.70	NO
L0009059	0	0.88496E-03	656042.3	4193991.9	9.0	3.66	0.85	1.70	NO
L0009060	0	0.88496E-03	656040.5	4193991.8	9.0	3.66	0.85	1.70	NO
L0009061	0	0.88496E-03	656038.6	4193991.8	9.0	3.66	0.85	1.70	NO
L0009062	0	0.88496E-03	656036.8	4193991.8	9.0	3.66	0.85	1.70	NO
L0009063	0	0.88496E-03	656035.0	4193991.7	9.0	3.66	0.85	1.70	NO
L0009064	0	0.88496E-03	656033.1	4193991.7	9.0	3.66	0.85	1.70	NO
L0009065	0	0.88496E-03	656031.3	4193991.7	9.0	3.66	0.85	1.70	NO
L0009066	0	0.88496E-03	656029.5	4193991.6	9.0	3.66	0.85	1.70	NO
L0009067	0	0.88496E-03	656027.7	4193991.6	9.0	3.66	0.85	1.70	NO
L0009068	0	0.88496E-03	656025.8	4193991.6	9.0	3.66	0.85	1.70	NO
L0009069	0	0.88496E-03	656024.0	4193991.5	9.0	3.66	0.85	1.70	NO
L0009070	0	0.88496E-03	656022.2	4193991.5	9.0	3.66	0.85	1.70	NO
L0009071	0	0.88496E-03	656020.3	4193991.5	9.0	3.66	0.85	1.70	NO
L0009072	0	0.88496E-03	656018.5	4193991.4	9.0	3.66	0.85	1.70	NO
L0009073	0	0.88496E-03	656016.7	4193991.4	9.0	3.66	0.85	1.70	NO
L0009074	0	0.88496E-03	656014.9	4193991.4	9.0	3.66	0.85	1.70	NO
L0009075	0	0.88496E-03	656013.0	4193991.3	9.0	3.66	0.85	1.70	NO
L0009076	0	0.88496E-03	656011.2	4193991.3	9.0	3.66	0.85	1.70	NO
L0009077	0	0.88496E-03	656009.4	4193991.3	9.0	3.66	0.85	1.70	NO
L0009078	0	0.88496E-03	656007.5	4193991.2	9.0	3.66	0.85	1.70	NO
L0009079	0	0.88496E-03	656005.7	4193991.2	9.0	3.66	0.85	1.70	NO
L0009080	0	0.88496E-03	656003.9	4193991.2	9.0	3.66	0.85	1.70	NO
L0009081	0	0.88496E-03	656002.1	4193991.1	9.0	3.66	0.85	1.70	NO
L0009082	0	0.88496E-03	656000.2	4193991.1	9.0	3.66	0.85	1.70	NO
L0009083	0	0.88496E-03	655998.4	4193991.1	9.0	3.66	0.85	1.70	NO
L0009084	0	0.88496E-03	655996.6	4193991.0	9.0	3.66	0.85	1.70	NO
L0009085	0	0.88496E-03	655994.7	4193991.0	9.0	3.66	0.85	1.70	NO
L0009086	0	0.88496E-03	655992.9	4193991.0	9.0	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE			
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY	

Table with 10 columns: ID, CATS, and 8 numerical values. Rows are labeled L0009087 through L0009126.

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

Table header with 10 columns: NUMBER, EMISSION RATE, BASE, RELEASE, INIT., INIT., URBAN, EMISSION RATE, SOURCE, SCALAR VARY. Sub-headers include PART. (GRAMS/SEC), X, Y, ELEV., HEIGHT, SY, SZ, SOURCE, and BY.

L0009127	0	0.88496E-03	655917.9	4193989.6	8.8	3.66	0.85	1.70	NO
L0009128	0	0.88496E-03	655916.1	4193989.6	8.8	3.66	0.85	1.70	NO
L0009129	0	0.88496E-03	655914.3	4193989.6	8.8	3.66	0.85	1.70	NO
L0009130	0	0.88496E-03	655912.5	4193989.5	8.8	3.66	0.85	1.70	NO
L0009131	0	0.88496E-03	655910.6	4193989.5	8.8	3.66	0.85	1.70	NO
L0009132	0	0.88496E-03	655908.8	4193989.5	8.8	3.66	0.85	1.70	NO
L0009133	0	0.88496E-03	655907.0	4193989.4	8.8	3.66	0.85	1.70	NO
L0009134	0	0.88496E-03	655905.2	4193989.4	8.8	3.66	0.85	1.70	NO
L0009135	0	0.88496E-03	655903.3	4193989.4	8.8	3.66	0.85	1.70	NO
L0009136	0	0.88496E-03	655901.5	4193989.3	8.8	3.66	0.85	1.70	NO
L0009137	0	0.88496E-03	655899.7	4193989.3	8.8	3.66	0.85	1.70	NO
L0009138	0	0.88496E-03	655897.8	4193989.3	8.8	3.66	0.85	1.70	NO
L0009139	0	0.88496E-03	655896.0	4193989.2	8.8	3.66	0.85	1.70	NO
L0009140	0	0.88496E-03	655894.2	4193989.2	8.8	3.66	0.85	1.70	NO
L0009141	0	0.88496E-03	655892.4	4193989.2	8.8	3.66	0.85	1.70	NO
L0009142	0	0.88496E-03	655890.5	4193989.1	8.8	3.66	0.85	1.70	NO
L0009143	0	0.88496E-03	655888.7	4193989.1	8.8	3.66	0.85	1.70	NO
L0009144	0	0.88496E-03	655886.9	4193989.1	8.8	3.66	0.85	1.70	NO
L0009145	0	0.88496E-03	655885.0	4193989.0	8.8	3.66	0.85	1.70	NO
L0009146	0	0.88496E-03	655883.2	4193989.0	8.8	3.66	0.85	1.70	NO
L0009147	0	0.88496E-03	655881.4	4193989.0	8.8	3.66	0.85	1.70	NO
L0009148	0	0.88496E-03	655879.6	4193988.9	8.8	3.66	0.85	1.70	NO
L0009149	0	0.88496E-03	655877.7	4193988.9	8.8	3.66	0.85	1.70	NO
L0009150	0	0.88496E-03	655875.9	4193988.9	8.8	3.66	0.85	1.70	NO
L0009151	0	0.88496E-03	655874.1	4193988.8	8.8	3.66	0.85	1.70	NO
L0009152	0	0.88496E-03	655872.2	4193988.8	8.8	3.66	0.85	1.70	NO
L0009153	0	0.88496E-03	655870.4	4193988.8	8.8	3.66	0.85	1.70	NO
L0009154	0	0.88496E-03	655868.6	4193988.7	8.8	3.66	0.85	1.70	NO
L0009155	0	0.88496E-03	655866.8	4193988.7	8.8	3.66	0.85	1.70	NO
L0009156	0	0.88496E-03	655864.9	4193988.7	8.7	3.66	0.85	1.70	NO
L0009157	0	0.88496E-03	655863.1	4193988.6	8.7	3.66	0.85	1.70	NO
L0009158	0	0.88496E-03	655861.3	4193988.6	8.7	3.66	0.85	1.70	NO
L0009159	0	0.88496E-03	655859.4	4193988.6	8.7	3.66	0.85	1.70	NO
L0009160	0	0.88496E-03	655857.6	4193988.6	8.7	3.66	0.85	1.70	NO
L0009161	0	0.88496E-03	655855.8	4193988.5	8.7	3.66	0.85	1.70	NO
L0009162	0	0.88496E-03	655854.0	4193988.5	8.7	3.66	0.85	1.70	NO
L0009163	0	0.88496E-03	655852.1	4193988.5	8.7	3.66	0.85	1.70	NO
L0009164	0	0.88496E-03	655850.3	4193988.4	8.7	3.66	0.85	1.70	NO
L0009165	0	0.88496E-03	655848.5	4193988.4	8.7	3.66	0.85	1.70	NO
L0009166	0	0.88496E-03	655846.6	4193988.4	8.7	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY

L0009167	0	0.88496E-03	655844.8	4193988.3	8.7	3.66	0.85	1.70	NO

L0009168	0	0.88496E-03	655843.0	4193988.3	8.7	3.66	0.85	1.70	NO
L0009169	0	0.88496E-03	655841.2	4193988.3	8.7	3.66	0.85	1.70	NO
L0009170	0	0.88496E-03	655839.3	4193988.2	8.7	3.66	0.85	1.70	NO
L0009171	0	0.88496E-03	655837.5	4193988.2	8.7	3.66	0.85	1.70	NO
L0009172	0	0.88496E-03	655835.7	4193988.2	8.7	3.66	0.85	1.70	NO
L0009173	0	0.88496E-03	655833.8	4193988.1	8.7	3.66	0.85	1.70	NO
L0009174	0	0.88496E-03	655832.0	4193988.1	8.7	3.66	0.85	1.70	NO
L0009175	0	0.88496E-03	655830.2	4193988.1	8.7	3.66	0.85	1.70	NO
L0009176	0	0.88496E-03	655828.4	4193988.0	8.7	3.66	0.85	1.70	NO
L0009177	0	0.88496E-03	655826.5	4193988.0	8.7	3.66	0.85	1.70	NO
L0009178	0	0.88496E-03	655824.7	4193988.0	8.7	3.66	0.85	1.70	NO
L0009179	0	0.88496E-03	655822.9	4193987.9	8.7	3.66	0.85	1.70	NO
L0009180	0	0.88496E-03	655821.0	4193987.9	8.7	3.66	0.85	1.70	NO
L0009181	0	0.88496E-03	655819.2	4193987.9	8.7	3.66	0.85	1.70	NO
L0009182	0	0.88496E-03	655817.4	4193987.8	8.7	3.66	0.85	1.70	NO
L0009183	0	0.88496E-03	655815.6	4193987.8	8.7	3.66	0.85	1.70	NO
L0009184	0	0.88496E-03	655813.7	4193987.8	8.7	3.66	0.85	1.70	NO
L0009185	0	0.88496E-03	655811.9	4193987.7	8.7	3.66	0.85	1.70	NO
L0009186	0	0.88496E-03	655810.1	4193987.7	8.7	3.66	0.85	1.70	NO
L0009187	0	0.88496E-03	655808.2	4193987.7	8.7	3.66	0.85	1.70	NO
L0009188	0	0.88496E-03	655806.4	4193987.6	8.7	3.66	0.85	1.70	NO
L0009189	0	0.88496E-03	655804.6	4193987.6	8.7	3.66	0.85	1.70	NO
L0009190	0	0.88496E-03	655802.8	4193987.6	8.7	3.66	0.85	1.70	NO
L0009191	0	0.88496E-03	655800.9	4193987.5	8.7	3.66	0.85	1.70	NO
L0009192	0	0.88496E-03	655799.1	4193987.5	8.7	3.66	0.85	1.70	NO
L0009193	0	0.88496E-03	655797.3	4193987.5	8.6	3.66	0.85	1.70	NO
L0009194	0	0.88496E-03	655795.4	4193987.4	8.6	3.66	0.85	1.70	NO
L0009195	0	0.88496E-03	655793.6	4193987.4	8.6	3.66	0.85	1.70	NO
L0009196	0	0.88496E-03	655791.8	4193987.4	8.6	3.66	0.85	1.70	NO
L0009197	0	0.88496E-03	655790.0	4193987.3	8.6	3.66	0.85	1.70	NO
L0009198	0	0.88496E-03	655788.1	4193987.3	8.6	3.66	0.85	1.70	NO
L0009199	0	0.88496E-03	655786.3	4193987.3	8.6	3.66	0.85	1.70	NO
L0009200	0	0.88496E-03	655784.5	4193987.2	8.6	3.66	0.85	1.70	NO
L0009201	0	0.88496E-03	655782.6	4193987.2	8.6	3.66	0.85	1.70	NO
L0009202	0	0.88496E-03	655780.8	4193987.2	8.6	3.66	0.85	1.70	NO
L0009203	0	0.88496E-03	655779.0	4193987.1	8.6	3.66	0.85	1.70	NO
L0009204	0	0.88496E-03	655777.2	4193987.1	8.6	3.66	0.85	1.70	NO
L0009205	0	0.88496E-03	655775.3	4193987.1	8.6	3.66	0.85	1.70	NO
L0009206	0	0.88496E-03	655773.5	4193987.0	8.6	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY

L0009207	0	0.88496E-03	655771.7	4193987.0	8.6	3.66	0.85	1.70	NO
L0009208	0	0.88496E-03	655769.8	4193987.0	8.6	3.66	0.85	1.70	NO

L0009209	0	0.88496E-03	655768.0	4193987.0	8.6	3.66	0.85	1.70	NO
L0009210	0	0.88496E-03	655766.2	4193986.9	8.6	3.66	0.85	1.70	NO
L0009211	0	0.88496E-03	655764.4	4193986.9	8.6	3.66	0.85	1.70	NO
L0009212	0	0.88496E-03	655762.5	4193986.9	8.6	3.66	0.85	1.70	NO
L0009213	0	0.88496E-03	655760.7	4193986.8	8.6	3.66	0.85	1.70	NO
L0009214	0	0.88496E-03	655758.9	4193986.8	8.6	3.66	0.85	1.70	NO
L0009215	0	0.88496E-03	655757.0	4193986.8	8.6	3.66	0.85	1.70	NO
L0009216	0	0.88496E-03	655755.2	4193986.7	8.6	3.66	0.85	1.70	NO
L0009217	0	0.88496E-03	655753.4	4193986.7	8.6	3.66	0.85	1.70	NO
L0009218	0	0.88496E-03	655751.6	4193986.7	8.6	3.66	0.85	1.70	NO
L0009219	0	0.88496E-03	655749.7	4193986.6	8.6	3.66	0.85	1.70	NO
L0009220	0	0.88496E-03	655747.9	4193986.6	8.6	3.66	0.85	1.70	NO
L0009221	0	0.88496E-03	655746.1	4193986.6	8.6	3.66	0.85	1.70	NO
L0009222	0	0.88496E-03	655744.2	4193986.5	8.6	3.66	0.85	1.70	NO
L0009223	0	0.88496E-03	655742.4	4193986.5	8.6	3.66	0.85	1.70	NO
L0009224	0	0.88496E-03	655740.6	4193986.5	8.6	3.66	0.85	1.70	NO
L0009225	0	0.88496E-03	655738.8	4193986.4	8.6	3.66	0.85	1.70	NO
L0009226	0	0.88496E-03	655736.9	4193986.4	8.6	3.66	0.85	1.70	NO
L0009227	0	0.88496E-03	655735.1	4193986.4	8.5	3.66	0.85	1.70	NO
L0009228	0	0.88496E-03	655733.3	4193986.3	8.5	3.66	0.85	1.70	NO
L0009229	0	0.88496E-03	655731.4	4193986.3	8.5	3.66	0.85	1.70	NO
L0009230	0	0.88496E-03	655729.6	4193986.3	8.5	3.66	0.85	1.70	NO
L0009231	0	0.88496E-03	655727.8	4193986.2	8.5	3.66	0.85	1.70	NO
L0009232	0	0.88496E-03	655726.0	4193986.2	8.5	3.66	0.85	1.70	NO
L0009233	0	0.88496E-03	655724.1	4193986.2	8.5	3.66	0.85	1.70	NO
L0009234	0	0.88496E-03	655722.3	4193986.1	8.5	3.66	0.85	1.70	NO
L0009235	0	0.88496E-03	655720.5	4193986.1	8.5	3.66	0.85	1.70	NO
L0009236	0	0.88496E-03	655718.6	4193986.1	8.5	3.66	0.85	1.70	NO
L0009237	0	0.88496E-03	655716.8	4193986.0	8.5	3.66	0.85	1.70	NO
L0009238	0	0.88496E-03	655715.0	4193986.0	8.5	3.66	0.85	1.70	NO
L0009239	0	0.88496E-03	655713.2	4193986.0	8.5	3.66	0.85	1.70	NO
L0009240	0	0.88496E-03	655711.3	4193985.9	8.5	3.66	0.85	1.70	NO
L0009241	0	0.88496E-03	655709.5	4193985.9	8.5	3.66	0.85	1.70	NO
L0009242	0	0.88496E-03	655707.7	4193985.9	8.5	3.66	0.85	1.70	NO
L0009243	0	0.88496E-03	655705.8	4193985.8	8.5	3.66	0.85	1.70	NO
L0009244	0	0.88496E-03	655704.0	4193985.8	8.5	3.66	0.85	1.70	NO
L0009245	0	0.88496E-03	655702.2	4193985.8	8.5	3.66	0.85	1.70	NO
L0009246	0	0.88496E-03	655700.4	4193985.7	8.5	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE			BASE RELEASE		INIT.	INIT.	URBAN EMISSION RATE			
		(GRAMS/SEC)	X	Y	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	SOURCE	SCALAR	EMISSION RATE VARY BY	

L0009247	0	0.88496E-03	655698.5	4193985.7	8.5	3.66	0.85	1.70	NO			
L0009248	0	0.88496E-03	655696.7	4193985.7	8.5	3.66	0.85	1.70	NO			
L0009249	0	0.88496E-03	655694.9	4193985.6	8.5	3.66	0.85	1.70	NO			

L0009250	0	0.88496E-03	655693.0	4193985.6	8.5	3.66	0.85	1.70	NO
L0009251	0	0.88496E-03	655691.2	4193985.6	8.5	3.66	0.85	1.70	NO
L0009252	0	0.88496E-03	655689.4	4193985.5	8.5	3.66	0.85	1.70	NO
L0009253	0	0.88496E-03	655687.6	4193985.5	8.5	3.66	0.85	1.70	NO
L0009254	0	0.88496E-03	655685.7	4193985.5	8.5	3.66	0.85	1.70	NO
L0009255	0	0.88496E-03	655683.9	4193985.4	8.5	3.66	0.85	1.70	NO
L0009256	0	0.88496E-03	655682.1	4193985.4	8.5	3.66	0.85	1.70	NO
L0009257	0	0.88496E-03	655680.2	4193985.4	8.5	3.66	0.85	1.70	NO
L0009258	0	0.88496E-03	655678.4	4193985.3	8.5	3.66	0.85	1.70	NO
L0009259	0	0.88496E-03	655676.6	4193985.3	8.5	3.66	0.85	1.70	NO
L0009260	0	0.88496E-03	655674.8	4193985.3	8.5	3.66	0.85	1.70	NO
L0009261	0	0.88496E-03	655672.9	4193985.3	8.4	3.66	0.85	1.70	NO
L0009262	0	0.88496E-03	655671.1	4193985.2	8.4	3.66	0.85	1.70	NO
L0009263	0	0.88496E-03	655669.3	4193985.2	8.4	3.66	0.85	1.70	NO
L0009264	0	0.88496E-03	655667.4	4193985.2	8.4	3.66	0.85	1.70	NO
L0009265	0	0.88496E-03	655665.6	4193985.1	8.4	3.66	0.85	1.70	NO
L0009266	0	0.88496E-03	655663.8	4193985.1	8.4	3.66	0.85	1.70	NO
L0009267	0	0.88496E-03	655662.0	4193985.1	8.4	3.66	0.85	1.70	NO
L0009268	0	0.88496E-03	655660.1	4193985.0	8.4	3.66	0.85	1.70	NO
L0009269	0	0.88496E-03	655658.3	4193985.0	8.4	3.66	0.85	1.70	NO
L0009270	0	0.88496E-03	655656.5	4193985.0	8.4	3.66	0.85	1.70	NO
L0009271	0	0.88496E-03	655654.6	4193984.9	8.4	3.66	0.85	1.70	NO
L0009272	0	0.88496E-03	655652.8	4193984.9	8.4	3.66	0.85	1.70	NO
L0009273	0	0.88496E-03	655651.0	4193984.9	8.4	3.66	0.85	1.70	NO
L0009274	0	0.88496E-03	655649.2	4193984.8	8.4	3.66	0.85	1.70	NO
L0009275	0	0.88496E-03	655647.3	4193984.8	8.4	3.66	0.85	1.70	NO
L0009276	0	0.88496E-03	655645.5	4193984.8	8.4	3.66	0.85	1.70	NO
L0009277	0	0.88496E-03	655643.7	4193984.7	8.4	3.66	0.85	1.70	NO
L0009278	0	0.88496E-03	655641.8	4193984.7	8.4	3.66	0.85	1.70	NO
L0009279	0	0.88496E-03	655640.0	4193984.7	8.4	3.66	0.85	1.70	NO
L0009280	0	0.88496E-03	655638.2	4193984.6	8.4	3.66	0.85	1.70	NO
L0009281	0	0.88496E-03	655636.4	4193984.6	8.4	3.66	0.85	1.70	NO
L0009282	0	0.88496E-03	655634.5	4193984.6	8.4	3.66	0.85	1.70	NO
L0009283	0	0.88496E-03	655632.7	4193984.5	8.4	3.66	0.85	1.70	NO
L0009284	0	0.88496E-03	655630.9	4193984.5	8.4	3.66	0.85	1.70	NO
L0009285	0	0.88496E-03	655629.0	4193984.5	8.4	3.66	0.85	1.70	NO
L0009286	0	0.88496E-03	655627.2	4193984.4	8.4	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE		BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0009287	0	0.88496E-03	655625.4	4193984.4	8.4	3.66	0.85	1.70	NO
L0009288	0	0.88496E-03	655623.6	4193984.4	8.4	3.66	0.85	1.70	NO
L0009289	0	0.88496E-03	655621.7	4193984.3	8.4	3.66	0.85	1.70	NO
L0009290	0	0.88496E-03	655619.9	4193984.3	8.4	3.66	0.85	1.70	NO

L0009291	0	0.88496E-03	655618.1	4193984.3	8.4	3.66	0.85	1.70	NO
L0009292	0	0.88496E-03	655616.2	4193984.2	8.4	3.66	0.85	1.70	NO
L0009293	0	0.88496E-03	655614.4	4193984.2	8.4	3.66	0.85	1.70	NO
L0009294	0	0.88496E-03	655612.6	4193984.2	8.4	3.66	0.85	1.70	NO
L0009295	0	0.88496E-03	655610.8	4193984.1	8.4	3.66	0.85	1.70	NO
L0009296	0	0.88496E-03	655608.9	4193984.1	8.4	3.66	0.85	1.70	NO
L0009297	0	0.88496E-03	655607.1	4193984.1	8.3	3.66	0.85	1.70	NO
L0009298	0	0.88496E-03	655605.3	4193984.0	8.3	3.66	0.85	1.70	NO
L0009299	0	0.88496E-03	655603.4	4193984.0	8.3	3.66	0.85	1.70	NO
L0009300	0	0.88496E-03	655601.6	4193984.0	8.3	3.66	0.85	1.70	NO
L0009301	0	0.88496E-03	655599.8	4193983.9	8.3	3.66	0.85	1.70	NO
L0009302	0	0.88496E-03	655598.0	4193983.9	8.3	3.66	0.85	1.70	NO
L0009303	0	0.88496E-03	655596.1	4193983.9	8.3	3.66	0.85	1.70	NO
L0009304	0	0.88496E-03	655594.3	4193983.8	8.3	3.66	0.85	1.70	NO
L0009305	0	0.88496E-03	655592.5	4193983.8	8.3	3.66	0.85	1.70	NO
L0009306	0	0.88496E-03	655590.6	4193983.8	8.3	3.66	0.85	1.70	NO
L0009307	0	0.88496E-03	655588.8	4193983.7	8.3	3.66	0.85	1.70	NO
L0009308	0	0.88496E-03	655587.0	4193983.7	8.3	3.66	0.85	1.70	NO
L0009309	0	0.88496E-03	655585.2	4193983.7	8.3	3.66	0.85	1.70	NO
L0009310	0	0.88496E-03	655583.3	4193983.6	8.3	3.66	0.85	1.70	NO
L0009311	0	0.88496E-03	655581.5	4193983.6	8.3	3.66	0.85	1.70	NO
L0009312	0	0.88496E-03	655579.7	4193983.6	8.3	3.66	0.85	1.70	NO
L0009313	0	0.88496E-03	655577.8	4193983.6	8.3	3.66	0.85	1.70	NO
L0009314	0	0.88496E-03	655576.0	4193983.5	8.3	3.66	0.85	1.70	NO
L0009315	0	0.88496E-03	655574.2	4193983.5	8.3	3.66	0.85	1.70	NO
L0009316	0	0.88496E-03	655572.4	4193983.5	8.3	3.66	0.85	1.70	NO
L0009317	0	0.88496E-03	655570.5	4193983.4	8.3	3.66	0.85	1.70	NO
L0009318	0	0.88496E-03	655568.7	4193983.4	8.3	3.66	0.85	1.70	NO
L0009319	0	0.88496E-03	655566.9	4193983.4	8.3	3.66	0.85	1.70	NO
L0009320	0	0.88496E-03	655565.0	4193983.3	8.3	3.66	0.85	1.70	NO
L0009321	0	0.88496E-03	655563.2	4193983.3	8.3	3.66	0.85	1.70	NO
L0009322	0	0.88496E-03	655561.4	4193983.3	8.3	3.66	0.85	1.70	NO
L0009323	0	0.88496E-03	655559.6	4193983.2	8.3	3.66	0.85	1.70	NO
L0009324	0	0.88496E-03	655557.7	4193983.2	8.3	3.66	0.85	1.70	NO
L0009325	0	0.88496E-03	655555.9	4193983.2	8.3	3.66	0.85	1.70	NO
L0009326	0	0.88496E-03	655554.1	4193983.1	8.2	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 ***

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02/22/22

*** AERMET - VERSION 18081 ***

12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE		X	Y	BASE RELEASE		INIT.	INIT.	URBAN EMISSION RATE	
		(GRAMS/SEC)	(METERS)			ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR	VARY
		(METERS)	(METERS)			(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0009327	0	0.88496E-03	655552.2	4193983.1	8.2	3.66	0.85	1.70	NO		
L0009328	0	0.88496E-03	655550.4	4193983.1	8.2	3.66	0.85	1.70	NO		
L0009329	0	0.88496E-03	655548.6	4193983.0	8.2	3.66	0.85	1.70	NO		
L0009330	0	0.88496E-03	655546.8	4193983.0	8.2	3.66	0.85	1.70	NO		
L0009331	0	0.88496E-03	655544.9	4193983.0	8.2	3.66	0.85	1.70	NO		

L0009332	0	0.88496E-03	655543.1	4193982.9	8.2	3.66	0.85	1.70	NO
L0009333	0	0.88496E-03	655541.3	4193982.9	8.2	3.66	0.85	1.70	NO
L0009334	0	0.88496E-03	655539.4	4193982.9	8.2	3.66	0.85	1.70	NO
L0009335	0	0.88496E-03	655537.6	4193982.8	8.2	3.66	0.85	1.70	NO
L0009336	0	0.88496E-03	655535.8	4193982.8	8.2	3.66	0.85	1.70	NO
L0009337	0	0.88496E-03	655534.0	4193982.8	8.2	3.66	0.85	1.70	NO
L0009338	0	0.88496E-03	655532.1	4193982.7	8.2	3.66	0.85	1.70	NO
L0009339	0	0.88496E-03	655530.3	4193982.7	8.2	3.66	0.85	1.70	NO
L0009340	0	0.88496E-03	655528.5	4193982.7	8.2	3.66	0.85	1.70	NO
L0009341	0	0.88496E-03	655526.6	4193982.6	8.2	3.66	0.85	1.70	NO
L0009342	0	0.88496E-03	655524.8	4193982.6	8.2	3.66	0.85	1.70	NO
L0009343	0	0.88496E-03	655523.0	4193982.6	8.2	3.66	0.85	1.70	NO
L0009344	0	0.88496E-03	655521.2	4193982.5	8.2	3.66	0.85	1.70	NO
L0009345	0	0.88496E-03	655519.3	4193982.5	8.2	3.66	0.85	1.70	NO
L0009346	0	0.88496E-03	655517.5	4193982.5	8.2	3.66	0.85	1.70	NO
L0009347	0	0.88496E-03	655515.7	4193982.4	8.2	3.66	0.85	1.70	NO
L0009348	0	0.88496E-03	655513.8	4193982.4	8.2	3.66	0.85	1.70	NO
L0009349	0	0.88496E-03	655512.0	4193982.4	8.2	3.66	0.85	1.70	NO
L0009350	0	0.88496E-03	655510.2	4193982.3	8.2	3.66	0.85	1.70	NO
L0009351	0	0.88496E-03	655508.4	4193982.3	8.2	3.66	0.85	1.70	NO
L0009352	0	0.88496E-03	655506.5	4193982.3	8.2	3.66	0.85	1.70	NO
L0009353	0	0.88496E-03	655504.7	4193982.2	8.1	3.66	0.85	1.70	NO
L0009354	0	0.88496E-03	655502.9	4193982.2	8.1	3.66	0.85	1.70	NO
L0009355	0	0.88496E-03	655501.0	4193982.2	8.1	3.66	0.85	1.70	NO
L0009356	0	0.88496E-03	655499.2	4193982.1	8.1	3.66	0.85	1.70	NO
L0009357	0	0.88496E-03	655497.4	4193982.1	8.1	3.66	0.85	1.70	NO
L0009358	0	0.88496E-03	655495.6	4193982.1	8.1	3.66	0.85	1.70	NO
L0009359	0	0.88496E-03	655493.7	4193982.0	8.1	3.66	0.85	1.70	NO
L0009360	0	0.88496E-03	655491.9	4193982.0	8.1	3.66	0.85	1.70	NO
L0009361	0	0.88496E-03	655490.1	4193982.0	8.1	3.66	0.85	1.70	NO
L0009362	0	0.88496E-03	655488.2	4193982.0	8.1	3.66	0.85	1.70	NO
L0009363	0	0.88496E-03	655486.4	4193981.9	8.1	3.66	0.85	1.70	NO
L0009364	0	0.88496E-03	655484.6	4193981.9	8.1	3.66	0.85	1.70	NO
L0009365	0	0.88496E-03	655482.8	4193981.9	8.1	3.66	0.85	1.70	NO
L0009366	0	0.88496E-03	655480.9	4193981.8	8.1	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 ***

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02/22/22

*** AERMET - VERSION 18081 ***

*** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE ID	PART. CATS.	(GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	SOURCE SCALAR	VARY BY

L0009367	0	0.88496E-03	655479.1	4193981.8	8.1	3.66	0.85	1.70	NO	
L0009368	0	0.88496E-03	655477.3	4193981.8	8.1	3.66	0.85	1.70	NO	
L0009369	0	0.88496E-03	655475.5	4193981.7	8.1	3.66	0.85	1.70	NO	
L0009370	0	0.88496E-03	655473.6	4193981.7	8.1	3.66	0.85	1.70	NO	
L0009371	0	0.88496E-03	655471.8	4193981.7	8.1	3.66	0.85	1.70	NO	
L0009372	0	0.88496E-03	655470.0	4193981.6	8.1	3.66	0.85	1.70	NO	

L0009373	0	0.88496E-03	655468.1	4193981.6	8.1	3.66	0.85	1.70	NO
L0009374	0	0.88496E-03	655466.3	4193981.6	8.1	3.66	0.85	1.70	NO
L0009375	0	0.88496E-03	655464.5	4193981.5	8.1	3.66	0.85	1.70	NO
L0009376	0	0.88496E-03	655462.7	4193981.5	8.1	3.66	0.85	1.70	NO
L0009377	0	0.88496E-03	655460.8	4193981.5	8.1	3.66	0.85	1.70	NO
L0009378	0	0.88496E-03	655459.0	4193981.4	8.1	3.66	0.85	1.70	NO
L0009379	0	0.88496E-03	655457.2	4193981.4	8.1	3.66	0.85	1.70	NO
L0009380	0	0.88496E-03	655455.3	4193981.4	8.0	3.66	0.85	1.70	NO
L0009381	0	0.88496E-03	655453.5	4193981.3	8.0	3.66	0.85	1.70	NO
L0009382	0	0.88496E-03	655451.7	4193981.3	8.0	3.66	0.85	1.70	NO
L0009383	0	0.88496E-03	655449.9	4193981.3	8.0	3.66	0.85	1.70	NO
L0009384	0	0.88496E-03	655448.0	4193981.2	8.0	3.66	0.85	1.70	NO
L0009385	0	0.88496E-03	655446.2	4193981.2	8.0	3.66	0.85	1.70	NO
L0009386	0	0.88496E-03	655444.4	4193981.2	8.0	3.66	0.85	1.70	NO
L0009387	0	0.88496E-03	655442.5	4193981.1	8.0	3.66	0.85	1.70	NO
L0009388	0	0.88496E-03	655440.7	4193981.1	8.0	3.66	0.85	1.70	NO
L0009389	0	0.88496E-03	655438.9	4193981.1	8.0	3.66	0.85	1.70	NO
L0009390	0	0.88496E-03	655437.1	4193981.0	8.0	3.66	0.85	1.70	NO
L0009391	0	0.88496E-03	655435.2	4193981.0	8.0	3.66	0.85	1.70	NO
L0009392	0	0.88496E-03	655433.4	4193981.0	8.0	3.66	0.85	1.70	NO
L0009393	0	0.88496E-03	655431.6	4193980.9	8.0	3.66	0.85	1.70	NO
L0009394	0	0.88496E-03	655429.7	4193980.9	8.0	3.66	0.85	1.70	NO
L0009395	0	0.88496E-03	655427.9	4193980.9	8.0	3.66	0.85	1.70	NO
L0009396	0	0.88496E-03	655426.1	4193980.8	8.0	3.66	0.85	1.70	NO
L0009397	0	0.88496E-03	655424.3	4193980.8	8.0	3.66	0.85	1.70	NO
L0009398	0	0.88496E-03	655422.4	4193980.8	8.0	3.66	0.85	1.70	NO
L0009399	0	0.88496E-03	655420.6	4193980.7	8.0	3.66	0.85	1.70	NO
L0009400	0	0.88496E-03	655418.8	4193980.7	8.0	3.66	0.85	1.70	NO
L0009401	0	0.88496E-03	655416.9	4193980.7	7.9	3.66	0.85	1.70	NO
L0009402	0	0.88496E-03	655415.1	4193980.6	7.9	3.66	0.85	1.70	NO
L0009403	0	0.88496E-03	655413.3	4193980.6	7.9	3.66	0.85	1.70	NO
L0009404	0	0.88496E-03	655411.5	4193980.6	7.9	3.66	0.85	1.70	NO
L0009405	0	0.88496E-03	655409.6	4193980.5	7.9	3.66	0.85	1.70	NO
L0009406	0	0.88496E-03	655407.8	4193980.5	7.9	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE INIT. INIT. URBAN EMISSION RATE				SOURCE SCALAR VARY		
SOURCE ID	PART. CATS.	(GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	BY

L0009407	0	0.88496E-03	655406.0	4193980.5	7.9	3.66	0.85	1.70	NO
L0009408	0	0.88496E-03	655404.1	4193980.4	7.9	3.66	0.85	1.70	NO
L0009409	0	0.88496E-03	655402.3	4193980.4	7.9	3.66	0.85	1.70	NO
L0009410	0	0.88496E-03	655400.5	4193980.4	7.9	3.66	0.85	1.70	NO
L0009411	0	0.88496E-03	655398.7	4193980.3	7.9	3.66	0.85	1.70	NO
L0009412	0	0.88496E-03	655396.8	4193980.3	7.9	3.66	0.85	1.70	NO
L0009413	0	0.88496E-03	655395.0	4193980.3	7.9	3.66	0.85	1.70	NO

L0009414	0	0.88496E-03	655393.2	4193980.3	7.9	3.66	0.85	1.70	NO
L0009415	0	0.88496E-03	655391.3	4193980.2	7.9	3.66	0.85	1.70	NO
L0009416	0	0.88496E-03	655389.5	4193980.2	7.9	3.66	0.85	1.70	NO
L0009417	0	0.88496E-03	655387.7	4193980.2	7.9	3.66	0.85	1.70	NO
L0009418	0	0.88496E-03	655385.9	4193980.1	7.8	3.66	0.85	1.70	NO
L0009419	0	0.88496E-03	655384.0	4193980.1	7.8	3.66	0.85	1.70	NO
L0009420	0	0.88496E-03	655382.2	4193980.1	7.8	3.66	0.85	1.70	NO
L0009421	0	0.88496E-03	655380.4	4193980.0	7.8	3.66	0.85	1.70	NO
L0009422	0	0.88496E-03	655378.5	4193980.0	7.8	3.66	0.85	1.70	NO
L0009423	0	0.88496E-03	655376.7	4193980.0	7.8	3.66	0.85	1.70	NO
L0009424	0	0.88496E-03	655374.9	4193979.9	7.8	3.66	0.85	1.70	NO
L0009425	0	0.88496E-03	655373.1	4193979.9	7.8	3.66	0.85	1.70	NO
L0009426	0	0.88496E-03	655371.2	4193979.9	7.8	3.66	0.85	1.70	NO
L0009427	0	0.88496E-03	655369.4	4193979.8	7.8	3.66	0.85	1.70	NO
L0009428	0	0.88496E-03	655367.6	4193979.8	7.8	3.66	0.85	1.70	NO
L0009429	0	0.88496E-03	655365.7	4193979.8	7.8	3.66	0.85	1.70	NO
L0009430	0	0.88496E-03	655363.9	4193979.7	7.8	3.66	0.85	1.70	NO
L0009431	0	0.88496E-03	655362.1	4193979.7	7.8	3.66	0.85	1.70	NO
L0009432	0	0.88496E-03	655360.3	4193979.7	7.8	3.66	0.85	1.70	NO
L0009433	0	0.88496E-03	655358.4	4193979.6	7.8	3.66	0.85	1.70	NO
L0009434	0	0.88496E-03	655356.6	4193979.6	7.8	3.66	0.85	1.70	NO
L0009435	0	0.88496E-03	655354.8	4193979.6	7.8	3.66	0.85	1.70	NO
L0009436	0	0.88496E-03	655352.9	4193979.5	7.8	3.66	0.85	1.70	NO
L0009437	0	0.88496E-03	655351.1	4193979.5	7.8	3.66	0.85	1.70	NO
L0009438	0	0.88496E-03	655349.3	4193979.5	7.8	3.66	0.85	1.70	NO
L0009439	0	0.88496E-03	655347.5	4193979.4	7.8	3.66	0.85	1.70	NO
L0009440	0	0.88496E-03	655345.6	4193979.4	7.8	3.66	0.85	1.70	NO
L0009441	0	0.88496E-03	655343.8	4193979.4	7.7	3.66	0.85	1.70	NO
L0009442	0	0.88496E-03	655342.0	4193979.3	7.7	3.66	0.85	1.70	NO
L0009443	0	0.88496E-03	655340.1	4193979.3	7.7	3.66	0.85	1.70	NO
L0009444	0	0.88496E-03	655338.3	4193979.3	7.7	3.66	0.85	1.70	NO
L0009445	0	0.88496E-03	655336.5	4193979.2	7.7	3.66	0.85	1.70	NO
L0009446	0	0.88496E-03	655334.7	4193979.2	7.7	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE		RELEASE	INIT.	INIT.	URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0009447	0	0.88496E-03	655332.8	4193979.2	7.7	3.66	0.85	1.70	NO
L0009448	0	0.88496E-03	655331.0	4193979.1	7.7	3.66	0.85	1.70	NO
L0009449	0	0.88496E-03	655329.2	4193979.1	7.7	3.66	0.85	1.70	NO
L0009450	0	0.88496E-03	655327.3	4193979.1	7.7	3.66	0.85	1.70	NO
L0009451	0	0.88496E-03	655325.5	4193979.0	7.7	3.66	0.85	1.70	NO
L0009452	0	0.88496E-03	655323.7	4193979.0	7.7	3.66	0.85	1.70	NO
L0009453	0	0.88496E-03	655321.9	4193979.0	7.7	3.66	0.85	1.70	NO
L0009454	0	0.88496E-03	655320.0	4193978.9	7.7	3.66	0.85	1.70	NO

L0009455	0	0.88496E-03	655318.2	4193978.9	7.7	3.66	0.85	1.70	NO
L0009456	0	0.88496E-03	655316.4	4193978.9	7.7	3.66	0.85	1.70	NO
L0009457	0	0.88496E-03	655314.5	4193978.8	7.7	3.66	0.85	1.70	NO
L0009458	0	0.88496E-03	655312.7	4193978.8	7.7	3.66	0.85	1.70	NO
L0009459	0	0.88496E-03	655310.9	4193978.8	7.7	3.66	0.85	1.70	NO
L0009460	0	0.88496E-03	655309.1	4193978.7	7.7	3.66	0.85	1.70	NO
L0009461	0	0.88496E-03	655307.2	4193978.7	7.7	3.66	0.85	1.70	NO
L0009462	0	0.88496E-03	655305.4	4193978.7	7.7	3.66	0.85	1.70	NO
L0009463	0	0.88496E-03	655303.6	4193978.6	7.7	3.66	0.85	1.70	NO
L0009464	0	0.88496E-03	655301.7	4193978.6	7.7	3.66	0.85	1.70	NO
L0009465	0	0.88496E-03	655299.9	4193978.6	7.6	3.66	0.85	1.70	NO
L0009466	0	0.88496E-03	655298.1	4193978.6	7.6	3.66	0.85	1.70	NO
L0009467	0	0.88496E-03	655296.3	4193978.5	7.6	3.66	0.85	1.70	NO
L0009468	0	0.88496E-03	655294.4	4193978.5	7.6	3.66	0.85	1.70	NO
L0009469	0	0.88496E-03	655292.6	4193978.5	7.6	3.66	0.85	1.70	NO
L0009470	0	0.88496E-03	655290.8	4193978.4	7.6	3.66	0.85	1.70	NO
L0009471	0	0.88496E-03	655288.9	4193978.4	7.6	3.66	0.85	1.70	NO
L0009472	0	0.88496E-03	655287.1	4193978.4	7.6	3.66	0.85	1.70	NO
L0009473	0	0.88496E-03	655285.3	4193978.3	7.6	3.66	0.85	1.70	NO
L0009474	0	0.88496E-03	655283.5	4193978.3	7.6	3.66	0.85	1.70	NO
L0009475	0	0.88496E-03	655281.6	4193978.3	7.6	3.66	0.85	1.70	NO
L0009476	0	0.88496E-03	655279.8	4193978.2	7.6	3.66	0.85	1.70	NO
L0009477	0	0.88496E-03	655278.0	4193978.2	7.6	3.66	0.85	1.70	NO
L0009478	0	0.88496E-03	655276.1	4193978.2	7.6	3.66	0.85	1.70	NO
L0009479	0	0.88496E-03	655274.3	4193978.1	7.6	3.66	0.85	1.70	NO
L0009480	0	0.88496E-03	655272.5	4193978.1	7.6	3.66	0.85	1.70	NO
L0009481	0	0.88496E-03	655270.7	4193978.1	7.6	3.66	0.85	1.70	NO
L0009482	0	0.88496E-03	655268.8	4193978.0	7.6	3.66	0.85	1.70	NO
L0009483	0	0.88496E-03	655267.0	4193978.0	7.6	3.66	0.85	1.70	NO
L0009484	0	0.88496E-03	655265.2	4193978.0	7.6	3.66	0.85	1.70	NO
L0009485	0	0.88496E-03	655263.3	4193977.9	7.6	3.66	0.85	1.70	NO
L0009486	0	0.88496E-03	655261.5	4193977.9	7.6	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE INIT. INIT. URBAN EMISSION RATE				SOURCE SCALAR VARY	
SOURCE ID	PART. CATS.	(GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	BY

L0009487	0	0.88496E-03	655259.7	4193977.9	7.6	3.66	0.85	1.70	NO
L0009488	0	0.88496E-03	655257.9	4193977.8	7.6	3.66	0.85	1.70	NO
L0009489	0	0.88496E-03	655256.0	4193977.8	7.5	3.66	0.85	1.70	NO
L0009490	0	0.88496E-03	655254.2	4193977.8	7.5	3.66	0.85	1.70	NO
L0009491	0	0.88496E-03	655252.4	4193977.7	7.5	3.66	0.85	1.70	NO
L0009492	0	0.88496E-03	655250.5	4193977.7	7.5	3.66	0.85	1.70	NO
L0009493	0	0.88496E-03	655248.7	4193977.7	7.5	3.66	0.85	1.70	NO
L0009494	0	0.88496E-03	655246.9	4193977.6	7.5	3.66	0.85	1.70	NO
L0009495	0	0.88496E-03	655245.1	4193977.6	7.5	3.66	0.85	1.70	NO

L0009496	0	0.88496E-03	655243.2	4193977.6	7.5	3.66	0.85	1.70	NO
L0009497	0	0.88496E-03	655241.4	4193977.5	7.5	3.66	0.85	1.70	NO
L0009498	0	0.88496E-03	655239.6	4193977.5	7.5	3.66	0.85	1.70	NO
L0009499	0	0.88496E-03	655237.7	4193977.5	7.5	3.66	0.85	1.70	NO
L0009500	0	0.88496E-03	655235.9	4193977.4	7.5	3.66	0.85	1.70	NO
L0009501	0	0.88496E-03	655234.1	4193977.4	7.5	3.66	0.85	1.70	NO
L0009502	0	0.88496E-03	655232.3	4193977.4	7.5	3.66	0.85	1.70	NO
L0009503	0	0.88496E-03	655230.4	4193977.3	7.5	3.66	0.85	1.70	NO
L0009504	0	0.88496E-03	655228.6	4193977.3	7.5	3.66	0.85	1.70	NO
L0009505	0	0.88496E-03	655226.8	4193977.3	7.5	3.66	0.85	1.70	NO
L0009506	0	0.88496E-03	655224.9	4193977.2	7.5	3.66	0.85	1.70	NO
L0009507	0	0.88496E-03	655223.1	4193977.2	7.5	3.66	0.85	1.70	NO
L0009508	0	0.88496E-03	655221.3	4193977.2	7.5	3.66	0.85	1.70	NO
L0009509	0	0.88496E-03	655219.5	4193977.1	7.5	3.66	0.85	1.70	NO
L0009510	0	0.88496E-03	655217.6	4193977.1	7.5	3.66	0.85	1.70	NO
L0009511	0	0.88496E-03	655215.8	4193977.1	7.5	3.66	0.85	1.70	NO
L0009512	0	0.88496E-03	655214.0	4193977.0	7.5	3.66	0.85	1.70	NO
L0009513	0	0.88496E-03	655212.1	4193977.0	7.5	3.66	0.85	1.70	NO
L0009514	0	0.88496E-03	655210.3	4193977.0	7.5	3.66	0.85	1.70	NO
L0009515	0	0.88496E-03	655208.5	4193977.0	7.5	3.66	0.85	1.70	NO
L0009516	0	0.88496E-03	655206.7	4193976.9	7.5	3.66	0.85	1.70	NO
L0009517	0	0.88496E-03	655204.8	4193976.9	7.5	3.66	0.85	1.70	NO
L0009518	0	0.88496E-03	655203.0	4193976.9	7.5	3.66	0.85	1.70	NO
L0009519	0	0.88496E-03	655201.2	4193976.8	7.5	3.66	0.85	1.70	NO
L0009520	0	0.88496E-03	655199.3	4193976.8	7.5	3.66	0.85	1.70	NO
L0009521	0	0.88496E-03	655197.5	4193976.8	7.5	3.66	0.85	1.70	NO
L0009522	0	0.88496E-03	655195.7	4193976.7	7.4	3.66	0.85	1.70	NO
L0009523	0	0.88496E-03	655193.9	4193976.7	7.4	3.66	0.85	1.70	NO
L0009524	0	0.88496E-03	655192.0	4193976.7	7.4	3.66	0.85	1.70	NO
L0009525	0	0.88496E-03	655190.2	4193976.6	7.4	3.66	0.85	1.70	NO
L0009526	0	0.88496E-03	655188.4	4193976.6	7.4	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.	INIT.	URBAN EMISSION RATE		
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0009527	0	0.88496E-03	655186.5	4193976.6	7.4	3.66	0.85	1.70	NO
L0009528	0	0.88496E-03	655184.7	4193976.5	7.4	3.66	0.85	1.70	NO
L0009529	0	0.88496E-03	655182.9	4193976.5	7.4	3.66	0.85	1.70	NO
L0009530	0	0.88496E-03	655181.1	4193976.5	7.4	3.66	0.85	1.70	NO
L0009531	0	0.88496E-03	655179.2	4193976.4	7.4	3.66	0.85	1.70	NO
L0009532	0	0.88496E-03	655177.4	4193976.4	7.4	3.66	0.85	1.70	NO
L0009533	0	0.88496E-03	655175.6	4193976.4	7.4	3.66	0.85	1.70	NO
L0009534	0	0.88496E-03	655173.7	4193976.3	7.4	3.66	0.85	1.70	NO
L0009535	0	0.88496E-03	655171.9	4193976.3	7.4	3.66	0.85	1.70	NO
L0009536	0	0.88496E-03	655170.1	4193976.3	7.4	3.66	0.85	1.70	NO

L0009537	0	0.88496E-03	655168.3	4193976.2	7.4	3.66	0.85	1.70	NO
L0009538	0	0.88496E-03	655166.4	4193976.2	7.4	3.66	0.85	1.70	NO
L0009539	0	0.88496E-03	655164.6	4193976.2	7.4	3.66	0.85	1.70	NO
L0009540	0	0.88496E-03	655162.8	4193976.1	7.4	3.66	0.85	1.70	NO
L0009541	0	0.88496E-03	655160.9	4193976.1	7.4	3.66	0.85	1.70	NO
L0009542	0	0.88496E-03	655159.1	4193976.1	7.4	3.66	0.85	1.70	NO
L0009543	0	0.88496E-03	655157.3	4193976.0	7.4	3.66	0.85	1.70	NO
L0009544	0	0.88496E-03	655155.5	4193976.0	7.4	3.66	0.85	1.70	NO
L0009545	0	0.88496E-03	655153.6	4193976.0	7.4	3.66	0.85	1.70	NO
L0009546	0	0.88496E-03	655151.8	4193975.9	7.4	3.66	0.85	1.70	NO
L0009547	0	0.88496E-03	655150.0	4193975.9	7.4	3.66	0.85	1.70	NO
L0009548	0	0.88496E-03	655148.1	4193975.9	7.4	3.66	0.85	1.70	NO
L0009549	0	0.88496E-03	655146.3	4193975.8	7.4	3.66	0.85	1.70	NO
L0009550	0	0.88496E-03	655144.5	4193975.8	7.4	3.66	0.85	1.70	NO
L0009551	0	0.88496E-03	655142.7	4193975.8	7.4	3.66	0.85	1.70	NO
L0009552	0	0.88496E-03	655140.8	4193975.7	7.4	3.66	0.85	1.70	NO
L0009553	0	0.88496E-03	655139.0	4193975.7	7.4	3.66	0.85	1.70	NO
L0009554	0	0.88496E-03	655137.2	4193975.7	7.4	3.66	0.85	1.70	NO
L0009555	0	0.88496E-03	655135.3	4193975.6	7.4	3.66	0.85	1.70	NO
L0009556	0	0.88496E-03	655133.5	4193975.6	7.4	3.66	0.85	1.70	NO
L0009557	0	0.88496E-03	655131.7	4193975.6	7.4	3.66	0.85	1.70	NO
L0009558	0	0.88496E-03	655129.9	4193975.5	7.4	3.66	0.85	1.70	NO
L0009559	0	0.88496E-03	655128.0	4193975.5	7.4	3.66	0.85	1.70	NO
L0009560	0	0.88496E-03	655126.2	4193975.5	7.3	3.66	0.85	1.70	NO
L0009561	0	0.88496E-03	655124.4	4193975.4	7.3	3.66	0.85	1.70	NO
L0009562	0	0.88496E-03	655122.5	4193975.4	7.3	3.66	0.85	1.70	NO
L0009563	0	0.88496E-03	655120.7	4193975.4	7.3	3.66	0.85	1.70	NO
L0009564	0	0.88496E-03	655118.9	4193975.3	7.3	3.66	0.85	1.70	NO
L0009565	0	0.88496E-03	655117.1	4193975.3	7.3	3.66	0.85	1.70	NO
L0009566	0	0.88496E-03	655115.2	4193975.3	7.3	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.		INIT. URBAN EMISSION RATE		
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0009567	0	0.88496E-03	655113.4	4193975.3	7.3	3.66	0.85	1.70	NO
L0009568	0	0.88496E-03	655111.6	4193975.2	7.3	3.66	0.85	1.70	NO
L0009569	0	0.88496E-03	655109.7	4193975.2	7.3	3.66	0.85	1.70	NO
L0009570	0	0.88496E-03	655107.9	4193975.2	7.3	3.66	0.85	1.70	NO
L0009571	0	0.88496E-03	655106.1	4193975.1	7.3	3.66	0.85	1.70	NO
L0009572	0	0.88496E-03	655104.3	4193975.1	7.3	3.66	0.85	1.70	NO
L0009573	0	0.88496E-03	655102.4	4193975.1	7.3	3.66	0.85	1.70	NO
L0009574	0	0.88496E-03	655100.6	4193975.0	7.3	3.66	0.85	1.70	NO
L0009575	0	0.88496E-03	655098.8	4193975.0	7.3	3.66	0.85	1.70	NO
L0009576	0	0.88496E-03	655096.9	4193975.0	7.3	3.66	0.85	1.70	NO
L0009577	0	0.88496E-03	655095.1	4193974.9	7.3	3.66	0.85	1.70	NO

L0009578	0	0.88496E-03	655093.3	4193974.9	7.3	3.66	0.85	1.70	NO
L0009579	0	0.88496E-03	655091.5	4193974.9	7.3	3.66	0.85	1.70	NO
L0009580	0	0.88496E-03	655089.6	4193974.8	7.3	3.66	0.85	1.70	NO
L0009581	0	0.88496E-03	655087.8	4193974.8	7.3	3.66	0.85	1.70	NO
L0009582	0	0.88496E-03	655086.0	4193974.8	7.3	3.66	0.85	1.70	NO
L0009583	0	0.88496E-03	655084.2	4193974.7	7.3	3.66	0.85	1.70	NO
L0009584	0	0.88496E-03	655082.3	4193974.7	7.3	3.66	0.85	1.70	NO
L0009585	0	0.88496E-03	655080.5	4193974.7	7.3	3.66	0.85	1.70	NO
L0009586	0	0.88496E-03	655078.7	4193974.6	7.3	3.66	0.85	1.70	NO
L0009587	0	0.88496E-03	655076.8	4193974.6	7.3	3.66	0.85	1.70	NO
L0009588	0	0.88496E-03	655075.0	4193974.6	7.3	3.66	0.85	1.70	NO
L0009589	0	0.88496E-03	655073.2	4193974.5	7.3	3.66	0.85	1.70	NO
L0009590	0	0.88496E-03	655071.4	4193974.5	7.3	3.66	0.85	1.70	NO
L0009591	0	0.88496E-03	655069.5	4193974.5	7.3	3.66	0.85	1.70	NO
L0009592	0	0.88496E-03	655067.7	4193974.4	7.3	3.66	0.85	1.70	NO
L0009593	0	0.88496E-03	655065.9	4193974.4	7.3	3.66	0.85	1.70	NO
L0009594	0	0.88496E-03	655064.0	4193974.4	7.3	3.66	0.85	1.70	NO
L0009595	0	0.88496E-03	655062.2	4193974.3	7.3	3.66	0.85	1.70	NO
L0009596	0	0.88496E-03	655060.4	4193974.3	7.3	3.66	0.85	1.70	NO
L0009597	0	0.88496E-03	655058.6	4193974.3	7.3	3.66	0.85	1.70	NO
L0009598	0	0.88496E-03	655056.7	4193974.2	7.3	3.66	0.85	1.70	NO
L0009599	0	0.88496E-03	655054.9	4193974.2	7.3	3.66	0.85	1.70	NO
L0009600	0	0.88496E-03	655053.1	4193974.2	7.3	3.66	0.85	1.70	NO
L0009601	0	0.88496E-03	655051.2	4193974.1	7.3	3.66	0.85	1.70	NO
L0009602	0	0.88496E-03	655049.4	4193974.1	7.3	3.66	0.85	1.70	NO
L0009603	0	0.88496E-03	655047.6	4193974.1	7.3	3.66	0.85	1.70	NO
L0009604	0	0.88496E-03	655045.8	4193974.0	7.3	3.66	0.85	1.70	NO
L0009605	0	0.88496E-03	655043.9	4193974.0	7.3	3.66	0.85	1.70	NO
L0009606	0	0.88496E-03	655042.1	4193974.0	7.3	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.		INIT. URBAN EMISSION RATE		
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0009607	0	0.88496E-03	655040.3	4193973.9	7.3	3.66	0.85	1.70	NO
L0009608	0	0.88496E-03	655038.4	4193973.9	7.3	3.66	0.85	1.70	NO
L0009609	0	0.88496E-03	655036.6	4193973.9	7.3	3.66	0.85	1.70	NO
L0009610	0	0.88496E-03	655034.8	4193973.8	7.2	3.66	0.85	1.70	NO
L0009611	0	0.88496E-03	655033.0	4193973.8	7.2	3.66	0.85	1.70	NO
L0009612	0	0.88496E-03	655031.1	4193973.8	7.2	3.66	0.85	1.70	NO
L0009613	0	0.88496E-03	655029.3	4193973.7	7.2	3.66	0.85	1.70	NO
L0009614	0	0.88496E-03	655027.5	4193973.7	7.2	3.66	0.85	1.70	NO
L0009615	0	0.88496E-03	655025.6	4193973.7	7.2	3.66	0.85	1.70	NO
L0009616	0	0.88496E-03	655023.8	4193973.6	7.2	3.66	0.85	1.70	NO
L0009617	0	0.88496E-03	655022.0	4193973.6	7.2	3.66	0.85	1.70	NO
L0009618	0	0.88496E-03	655020.2	4193973.6	7.2	3.66	0.85	1.70	NO

L0009619	0	0.88496E-03	655018.3	4193973.6	7.2	3.66	0.85	1.70	NO
L0009620	0	0.88496E-03	655016.5	4193973.5	7.2	3.66	0.85	1.70	NO
L0009621	0	0.88496E-03	655014.7	4193973.5	7.2	3.66	0.85	1.70	NO
L0009622	0	0.88496E-03	655012.8	4193973.5	7.2	3.66	0.85	1.70	NO
L0009623	0	0.88496E-03	655011.0	4193973.4	7.2	3.66	0.85	1.70	NO
L0009624	0	0.88496E-03	655009.2	4193973.4	7.2	3.66	0.85	1.70	NO
L0009625	0	0.88496E-03	655007.4	4193973.4	7.2	3.66	0.85	1.70	NO
L0009626	0	0.88496E-03	655005.5	4193973.3	7.2	3.66	0.85	1.70	NO
L0009627	0	0.88496E-03	655003.7	4193973.3	7.2	3.66	0.85	1.70	NO
L0009628	0	0.88496E-03	655001.9	4193973.3	7.2	3.66	0.85	1.70	NO
L0009629	0	0.88496E-03	655000.0	4193973.2	7.2	3.66	0.85	1.70	NO
L0009630	0	0.88496E-03	654998.2	4193973.2	7.2	3.66	0.85	1.70	NO
L0009631	0	0.88496E-03	654996.4	4193973.2	7.2	3.66	0.85	1.70	NO
L0009632	0	0.88496E-03	654994.6	4193973.1	7.2	3.66	0.85	1.70	NO
L0009633	0	0.88496E-03	654992.7	4193973.1	7.2	3.66	0.85	1.70	NO
L0009634	0	0.88496E-03	654990.9	4193973.1	7.2	3.66	0.85	1.70	NO
L0009635	0	0.88496E-03	654989.1	4193973.0	7.2	3.66	0.85	1.70	NO
L0009636	0	0.88496E-03	654987.2	4193973.0	7.2	3.66	0.85	1.70	NO
L0009637	0	0.88496E-03	654985.4	4193973.0	7.2	3.66	0.85	1.70	NO
L0009638	0	0.88496E-03	654983.6	4193972.9	7.2	3.66	0.85	1.70	NO
L0009639	0	0.88496E-03	654981.8	4193972.9	7.2	3.66	0.85	1.70	NO
L0009640	0	0.88496E-03	654979.9	4193972.9	7.2	3.66	0.85	1.70	NO
L0009641	0	0.88496E-03	654978.1	4193972.8	7.2	3.66	0.85	1.70	NO
L0009642	0	0.88496E-03	654976.3	4193972.8	7.2	3.66	0.85	1.70	NO
L0009643	0	0.88496E-03	654974.4	4193972.8	7.2	3.66	0.85	1.70	NO
L0009644	0	0.88496E-03	654972.6	4193972.7	7.2	3.66	0.85	1.70	NO
L0009645	0	0.88496E-03	654970.8	4193972.7	7.2	3.66	0.85	1.70	NO
L0009646	0	0.88496E-03	654969.0	4193972.7	7.2	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE		RELEASE	INIT.	INIT.	URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0009647	0	0.88496E-03	654967.1	4193972.6	7.2	3.66	0.85	1.70	NO
L0009648	0	0.88496E-03	654965.3	4193972.6	7.2	3.66	0.85	1.70	NO
L0009649	0	0.88496E-03	654963.5	4193972.6	7.2	3.66	0.85	1.70	NO
L0009650	0	0.88496E-03	654961.6	4193972.5	7.2	3.66	0.85	1.70	NO
L0009651	0	0.88496E-03	654959.8	4193972.5	7.2	3.66	0.85	1.70	NO
L0009652	0	0.88496E-03	654958.0	4193972.5	7.2	3.66	0.85	1.70	NO
L0009653	0	0.88496E-03	654956.2	4193972.4	7.2	3.66	0.85	1.70	NO
L0009654	0	0.88496E-03	654954.3	4193972.4	7.2	3.66	0.85	1.70	NO
L0009655	0	0.88496E-03	654952.5	4193972.4	7.2	3.66	0.85	1.70	NO
L0009656	0	0.88496E-03	654950.7	4193972.3	7.2	3.66	0.85	1.70	NO
L0009657	0	0.88496E-03	654948.8	4193972.3	7.2	3.66	0.85	1.70	NO
L0009658	0	0.88496E-03	654947.0	4193972.3	7.2	3.66	0.85	1.70	NO
L0009659	0	0.88496E-03	654945.2	4193972.2	7.2	3.66	0.85	1.70	NO

L0009660	0	0.88496E-03	654943.4	4193972.2	7.2	3.66	0.85	1.70	NO
L0009661	0	0.88496E-03	654941.5	4193972.2	7.2	3.66	0.85	1.70	NO
L0009662	0	0.88496E-03	654939.7	4193972.1	7.2	3.66	0.85	1.70	NO
L0009663	0	0.88496E-03	654937.9	4193972.1	7.2	3.66	0.85	1.70	NO
L0009664	0	0.88496E-03	654936.0	4193972.1	7.1	3.66	0.85	1.70	NO
L0009665	0	0.88496E-03	654934.2	4193972.0	7.1	3.66	0.85	1.70	NO
L0009666	0	0.88496E-03	654932.4	4193972.0	7.1	3.66	0.85	1.70	NO
L0009667	0	0.88496E-03	654930.6	4193972.0	7.1	3.66	0.85	1.70	NO
L0009668	0	0.88496E-03	654928.7	4193972.0	7.1	3.66	0.85	1.70	NO
L0009669	0	0.88496E-03	654926.9	4193971.9	7.1	3.66	0.85	1.70	NO
L0009670	0	0.88496E-03	654925.1	4193971.9	7.1	3.66	0.85	1.70	NO
L0009671	0	0.88496E-03	654923.2	4193971.9	7.1	3.66	0.85	1.70	NO
L0009672	0	0.88496E-03	654921.4	4193971.8	7.1	3.66	0.85	1.70	NO
L0009673	0	0.88496E-03	654919.6	4193971.8	7.1	3.66	0.85	1.70	NO
L0009674	0	0.88496E-03	654917.8	4193971.8	7.1	3.66	0.85	1.70	NO
L0009675	0	0.88496E-03	654915.9	4193971.7	7.1	3.66	0.85	1.70	NO
L0009676	0	0.88496E-03	654914.1	4193971.7	7.1	3.66	0.85	1.70	NO
L0009677	0	0.88496E-03	654912.3	4193971.7	7.1	3.66	0.85	1.70	NO
L0009678	0	0.88496E-03	654910.4	4193971.6	7.1	3.66	0.85	1.70	NO
L0009679	0	0.88496E-03	654908.6	4193971.6	7.1	3.66	0.85	1.70	NO
L0009680	0	0.88496E-03	654906.8	4193971.6	7.1	3.66	0.85	1.70	NO
L0009681	0	0.88496E-03	654905.0	4193971.5	7.1	3.66	0.85	1.70	NO
L0009682	0	0.88496E-03	654903.1	4193971.5	7.1	3.66	0.85	1.70	NO
L0009683	0	0.88496E-03	654901.3	4193971.5	7.1	3.66	0.85	1.70	NO
L0009684	0	0.88496E-03	654899.5	4193971.4	7.1	3.66	0.85	1.70	NO
L0009685	0	0.88496E-03	654897.6	4193971.4	7.1	3.66	0.85	1.70	NO
L0009686	0	0.88496E-03	654895.8	4193971.4	7.1	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.	INIT.	URBAN EMISSION RATE		
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0009687	0	0.88496E-03	654894.0	4193971.3	7.1	3.66	0.85	1.70	NO
L0009688	0	0.88496E-03	654892.2	4193971.3	7.1	3.66	0.85	1.70	NO
L0009689	0	0.88496E-03	654890.3	4193971.3	7.1	3.66	0.85	1.70	NO
L0009690	0	0.88496E-03	654888.5	4193971.2	7.1	3.66	0.85	1.70	NO
L0009691	0	0.88496E-03	654886.7	4193971.2	7.1	3.66	0.85	1.70	NO
L0009692	0	0.88496E-03	654884.8	4193971.2	7.1	3.66	0.85	1.70	NO
L0009693	0	0.88496E-03	654883.0	4193971.1	7.1	3.66	0.85	1.70	NO
L0009694	0	0.88496E-03	654881.2	4193971.1	7.1	3.66	0.85	1.70	NO
L0009695	0	0.88496E-03	654879.4	4193971.1	7.1	3.66	0.85	1.70	NO
L0009696	0	0.88496E-03	654877.5	4193971.0	7.1	3.66	0.85	1.70	NO
L0009697	0	0.88496E-03	654875.7	4193971.0	7.1	3.66	0.85	1.70	NO
L0009698	0	0.88496E-03	654873.9	4193971.0	7.1	3.66	0.85	1.70	NO
L0009699	0	0.88496E-03	654872.0	4193970.9	7.1	3.66	0.85	1.70	NO
L0009700	0	0.88496E-03	654870.2	4193970.9	7.1	3.66	0.85	1.70	NO

L0009701	0	0.88496E-03	654868.4	4193970.9	7.1	3.66	0.85	1.70	NO
L0009702	0	0.88496E-03	654866.6	4193970.8	7.1	3.66	0.85	1.70	NO
L0009703	0	0.88496E-03	654864.7	4193970.8	7.1	3.66	0.85	1.70	NO
L0009704	0	0.88496E-03	654862.9	4193970.8	7.1	3.66	0.85	1.70	NO
L0009705	0	0.88496E-03	654861.1	4193970.7	7.0	3.66	0.85	1.70	NO
L0009706	0	0.88496E-03	654859.2	4193970.7	7.0	3.66	0.85	1.70	NO
L0009707	0	0.88496E-03	654857.4	4193970.7	7.0	3.66	0.85	1.70	NO
L0009708	0	0.88496E-03	654855.6	4193970.6	7.0	3.66	0.85	1.70	NO
L0009709	0	0.88496E-03	654853.8	4193970.6	7.0	3.66	0.85	1.70	NO
L0009710	0	0.88496E-03	654851.9	4193970.6	7.0	3.66	0.85	1.70	NO
L0009711	0	0.88496E-03	654850.1	4193970.5	7.0	3.66	0.85	1.70	NO
L0009712	0	0.88496E-03	654848.3	4193970.5	7.0	3.66	0.85	1.70	NO
L0009713	0	0.88496E-03	654846.4	4193970.5	7.0	3.66	0.85	1.70	NO
L0009714	0	0.88496E-03	654844.6	4193970.4	7.0	3.66	0.85	1.70	NO
L0009715	0	0.88496E-03	654842.8	4193970.4	7.0	3.66	0.85	1.70	NO
L0009716	0	0.88496E-03	654841.0	4193970.4	7.0	3.66	0.85	1.70	NO
L0009717	0	0.88496E-03	654839.1	4193970.3	7.0	3.66	0.85	1.70	NO
L0009718	0	0.88496E-03	654837.3	4193970.3	7.0	3.66	0.85	1.70	NO
L0009719	0	0.88496E-03	654835.5	4193970.3	7.0	3.66	0.85	1.70	NO
L0009720	0	0.88496E-03	654833.6	4193970.3	7.0	3.66	0.85	1.70	NO
L0009721	0	0.88496E-03	654831.8	4193970.2	7.0	3.66	0.85	1.70	NO
L0009722	0	0.88496E-03	654830.0	4193970.2	7.0	3.66	0.85	1.70	NO
L0009723	0	0.88496E-03	654828.2	4193970.2	7.0	3.66	0.85	1.70	NO
L0009724	0	0.88496E-03	654826.3	4193970.1	7.0	3.66	0.85	1.70	NO
L0009725	0	0.88496E-03	654824.5	4193970.1	7.0	3.66	0.85	1.70	NO
L0009726	0	0.88496E-03	654822.7	4193970.1	7.0	3.66	0.85	1.70	NO

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*** AERMET - VERSION 18081 *** *** *** 12:37:56

*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER		EMISSION RATE		BASE		RELEASE		INIT.	INIT.	URBAN		EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY		
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY		

L0009727	0	0.88496E-03	654820.8	4193970.0	7.0	3.66	0.85	1.70	NO				
L0009728	0	0.88496E-03	654819.0	4193970.0	7.0	3.66	0.85	1.70	NO				
L0009729	0	0.88496E-03	654817.2	4193970.0	7.0	3.66	0.85	1.70	NO				
L0009730	0	0.88496E-03	654815.4	4193969.9	7.0	3.66	0.85	1.70	NO				
L0009731	0	0.88496E-03	654813.5	4193969.9	7.0	3.66	0.85	1.70	NO				
L0009732	0	0.88496E-03	654811.7	4193969.9	7.0	3.66	0.85	1.70	NO				
L0009733	0	0.88496E-03	654809.9	4193969.8	7.0	3.66	0.85	1.70	NO				
L0009734	0	0.88496E-03	654808.0	4193969.8	7.0	3.66	0.85	1.70	NO				
L0009735	0	0.88496E-03	654806.2	4193969.8	7.0	3.66	0.85	1.70	NO				
L0009736	0	0.88496E-03	654804.4	4193969.7	7.0	3.66	0.85	1.70	NO				
L0009737	0	0.88496E-03	654802.6	4193969.7	7.0	3.66	0.85	1.70	NO				
L0009738	0	0.88496E-03	654800.7	4193969.7	7.0	3.66	0.85	1.70	NO				
L0009739	0	0.88496E-03	654798.9	4193969.6	7.0	3.66	0.85	1.70	NO				
L0009740	0	0.88496E-03	654797.1	4193969.6	7.0	3.66	0.85	1.70	NO				
L0009741	0	0.88496E-03	654795.2	4193969.6	7.0	3.66	0.85	1.70	NO				

L0009742	0	0.88496E-03	654793.4	4193969.5	7.0	3.66	0.85	1.70	NO
L0009743	0	0.88496E-03	654791.6	4193969.5	7.0	3.66	0.85	1.70	NO
L0009744	0	0.88496E-03	654789.8	4193969.5	7.0	3.66	0.85	1.70	NO
L0009745	0	0.88496E-03	654787.9	4193969.4	6.9	3.66	0.85	1.70	NO
L0009746	0	0.88496E-03	654786.1	4193969.4	6.9	3.66	0.85	1.70	NO
L0009747	0	0.88496E-03	654784.3	4193969.4	6.9	3.66	0.85	1.70	NO
L0009748	0	0.88496E-03	654782.4	4193969.3	6.9	3.66	0.85	1.70	NO
L0009749	0	0.88496E-03	654780.6	4193969.3	6.9	3.66	0.85	1.70	NO
L0009750	0	0.88496E-03	654778.8	4193969.3	6.9	3.66	0.85	1.70	NO
L0009751	0	0.88496E-03	654777.0	4193969.2	6.9	3.66	0.85	1.70	NO
L0009752	0	0.88496E-03	654775.1	4193969.2	6.9	3.66	0.85	1.70	NO
L0009753	0	0.88496E-03	654773.3	4193969.2	6.9	3.66	0.85	1.70	NO
L0009754	0	0.88496E-03	654771.5	4193969.1	6.9	3.66	0.85	1.70	NO
L0009755	0	0.88496E-03	654769.6	4193969.1	6.9	3.66	0.85	1.70	NO
L0009756	0	0.88496E-03	654767.8	4193969.1	6.9	3.66	0.85	1.70	NO
L0009757	0	0.88496E-03	654766.0	4193969.0	6.9	3.66	0.85	1.70	NO
L0009758	0	0.88496E-03	654764.2	4193969.0	6.9	3.66	0.85	1.70	NO
L0009759	0	0.88496E-03	654762.3	4193969.0	6.9	3.66	0.85	1.70	NO
L0009760	0	0.88496E-03	654760.5	4193968.9	6.9	3.66	0.85	1.70	NO
L0009761	0	0.88496E-03	654758.7	4193968.9	6.9	3.66	0.85	1.70	NO
L0009762	0	0.88496E-03	654756.8	4193968.9	6.9	3.66	0.85	1.70	NO
L0009763	0	0.88496E-03	654755.0	4193968.8	6.9	3.66	0.85	1.70	NO
L0009764	0	0.88496E-03	654753.2	4193968.8	6.9	3.66	0.85	1.70	NO
L0009765	0	0.88496E-03	654751.4	4193968.8	6.9	3.66	0.85	1.70	NO
L0009766	0	0.88496E-03	654749.5	4193968.7	6.9	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER		EMISSION RATE		BASE		RELEASE		INIT.		INIT.		URBAN		EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY				
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)						BY

L0009767	0	0.88496E-03	654747.7	4193968.7	6.9	3.66	0.85	1.70	NO						
L0009768	0	0.88496E-03	654745.9	4193968.7	6.9	3.66	0.85	1.70	NO						
L0009769	0	0.88496E-03	654744.0	4193968.6	6.9	3.66	0.85	1.70	NO						
L0009770	0	0.88496E-03	654742.2	4193968.6	6.9	3.66	0.85	1.70	NO						
L0009771	0	0.88496E-03	654740.4	4193968.6	6.9	3.66	0.85	1.70	NO						
L0009772	0	0.88496E-03	654738.6	4193968.6	6.9	3.66	0.85	1.70	NO						
L0009773	0	0.88496E-03	654736.7	4193968.5	6.9	3.66	0.85	1.70	NO						
L0009774	0	0.88496E-03	654734.9	4193968.5	6.9	3.66	0.85	1.70	NO						
L0009775	0	0.88496E-03	654733.1	4193968.5	6.9	3.66	0.85	1.70	NO						
L0009776	0	0.88496E-03	654731.2	4193968.4	6.9	3.66	0.85	1.70	NO						
L0009777	0	0.88496E-03	654729.4	4193968.4	6.9	3.66	0.85	1.70	NO						
L0009778	0	0.88496E-03	654727.6	4193968.4	6.9	3.66	0.85	1.70	NO						
L0009779	0	0.88496E-03	654725.8	4193968.3	6.9	3.66	0.85	1.70	NO						
L0009780	0	0.88496E-03	654723.9	4193968.3	6.9	3.66	0.85	1.70	NO						
L0009781	0	0.88496E-03	654722.1	4193968.3	6.9	3.66	0.85	1.70	NO						
L0009782	0	0.88496E-03	654720.3	4193968.2	6.9	3.66	0.85	1.70	NO						

L0009783	0	0.88496E-03	654718.4	4193968.2	6.9	3.66	0.85	1.70	NO
L0009784	0	0.88496E-03	654716.6	4193968.2	6.9	3.66	0.85	1.70	NO
L0009785	0	0.88496E-03	654714.8	4193968.1	6.9	3.66	0.85	1.70	NO
L0009786	0	0.88496E-03	654713.0	4193968.1	6.9	3.66	0.85	1.70	NO
L0009787	0	0.88496E-03	654711.1	4193968.1	6.9	3.66	0.85	1.70	NO
L0009788	0	0.88496E-03	654709.3	4193968.0	6.9	3.66	0.85	1.70	NO
L0009789	0	0.88496E-03	654707.5	4193968.0	6.9	3.66	0.85	1.70	NO
L0009790	0	0.88496E-03	654705.6	4193968.0	6.9	3.66	0.85	1.70	NO
L0009791	0	0.88496E-03	654703.8	4193967.9	6.9	3.66	0.85	1.70	NO
L0009792	0	0.88496E-03	654702.0	4193967.9	6.9	3.66	0.85	1.70	NO
L0009793	0	0.88496E-03	654700.2	4193967.9	6.9	3.66	0.85	1.70	NO
L0009794	0	0.88496E-03	654698.3	4193967.8	6.9	3.66	0.85	1.70	NO
L0009795	0	0.88496E-03	654696.5	4193967.8	6.9	3.66	0.85	1.70	NO
L0009796	0	0.88496E-03	654694.7	4193967.8	6.9	3.66	0.85	1.70	NO
L0009797	0	0.88496E-03	654692.8	4193967.7	6.8	3.66	0.85	1.70	NO
L0009798	0	0.88496E-03	654691.0	4193967.7	6.8	3.66	0.85	1.70	NO
L0009799	0	0.88496E-03	654689.2	4193967.7	6.8	3.66	0.85	1.70	NO
L0009800	0	0.88496E-03	654687.4	4193967.6	6.8	3.66	0.85	1.70	NO
L0009801	0	0.88496E-03	654685.5	4193967.6	6.8	3.66	0.85	1.70	NO
L0009802	0	0.88496E-03	654683.7	4193967.6	6.8	3.66	0.85	1.70	NO
L0009803	0	0.88496E-03	654681.9	4193967.5	6.8	3.66	0.85	1.70	NO
L0009804	0	0.88496E-03	654680.0	4193967.5	6.8	3.66	0.85	1.70	NO
L0009805	0	0.88496E-03	654678.2	4193967.5	6.8	3.66	0.85	1.70	NO
L0009806	0	0.88496E-03	654676.4	4193967.4	6.8	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE			INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY	

L0009807	0	0.88496E-03	654674.6	4193967.4	6.8	3.66	0.85	1.70	NO		
L0009808	0	0.88496E-03	654672.7	4193967.4	6.8	3.66	0.85	1.70	NO		
L0009809	0	0.88496E-03	654670.9	4193967.3	6.8	3.66	0.85	1.70	NO		
L0009810	0	0.88496E-03	654669.1	4193967.3	6.8	3.66	0.85	1.70	NO		
L0009811	0	0.88496E-03	654667.2	4193967.3	6.8	3.66	0.85	1.70	NO		
L0009812	0	0.88496E-03	654665.4	4193967.2	6.8	3.66	0.85	1.70	NO		
L0009813	0	0.88496E-03	654663.6	4193967.2	6.8	3.66	0.85	1.70	NO		
L0009814	0	0.88496E-03	654661.8	4193967.2	6.8	3.66	0.85	1.70	NO		
L0009815	0	0.88496E-03	654659.9	4193967.1	6.8	3.66	0.85	1.70	NO		
L0009816	0	0.88496E-03	654658.1	4193967.1	6.8	3.66	0.85	1.70	NO		
L0009817	0	0.88496E-03	654656.3	4193967.1	6.8	3.66	0.85	1.70	NO		
L0009818	0	0.88496E-03	654654.5	4193967.0	6.8	3.66	0.85	1.70	NO		
L0009819	0	0.88496E-03	654652.6	4193967.0	6.8	3.66	0.85	1.70	NO		
L0009820	0	0.88496E-03	654650.8	4193967.0	6.8	3.66	0.85	1.70	NO		
L0009821	0	0.88496E-03	654649.0	4193967.0	6.8	3.66	0.85	1.70	NO		
L0009822	0	0.88496E-03	654647.1	4193966.9	6.8	3.66	0.85	1.70	NO		
L0009823	0	0.88496E-03	654645.3	4193966.9	6.8	3.66	0.85	1.70	NO		

L0009824	0	0.88496E-03	654643.5	4193966.9	6.8	3.66	0.85	1.70	NO
L0009825	0	0.88496E-03	654641.7	4193966.8	6.8	3.66	0.85	1.70	NO
L0009826	0	0.88496E-03	654639.8	4193966.8	6.8	3.66	0.85	1.70	NO
L0009827	0	0.88496E-03	654638.0	4193966.8	6.8	3.66	0.85	1.70	NO
L0009828	0	0.88496E-03	654636.2	4193966.7	6.8	3.66	0.85	1.70	NO
L0009829	0	0.88496E-03	654634.3	4193966.7	6.8	3.66	0.85	1.70	NO
L0009830	0	0.88496E-03	654632.5	4193966.7	6.8	3.66	0.85	1.70	NO
L0009831	0	0.88496E-03	654630.7	4193966.6	6.8	3.66	0.85	1.70	NO
L0009832	0	0.88496E-03	654628.9	4193966.6	6.8	3.66	0.85	1.70	NO
L0009833	0	0.88496E-03	654627.0	4193966.6	6.8	3.66	0.85	1.70	NO
L0009834	0	0.88496E-03	654625.2	4193966.5	6.8	3.66	0.85	1.70	NO
L0009835	0	0.88496E-03	654623.4	4193966.5	6.8	3.66	0.85	1.70	NO
L0009836	0	0.88496E-03	654621.5	4193966.5	6.8	3.66	0.85	1.70	NO
L0009837	0	0.88496E-03	654619.7	4193966.4	6.8	3.66	0.85	1.70	NO
L0009838	0	0.88496E-03	654617.9	4193966.4	6.8	3.66	0.85	1.70	NO
L0009839	0	0.88496E-03	654616.1	4193966.4	6.8	3.66	0.85	1.70	NO
L0009840	0	0.88496E-03	654614.2	4193966.3	6.8	3.66	0.85	1.70	NO
L0009841	0	0.88496E-03	654612.4	4193966.3	6.8	3.66	0.85	1.70	NO
L0009842	0	0.88496E-03	654610.6	4193966.3	6.8	3.66	0.85	1.70	NO
L0009843	0	0.88496E-03	654608.7	4193966.2	6.8	3.66	0.85	1.70	NO
L0009844	0	0.88496E-03	654606.9	4193966.2	6.8	3.66	0.85	1.70	NO
L0009845	0	0.88496E-03	654605.1	4193966.2	6.8	3.66	0.85	1.70	NO
L0009846	0	0.88496E-03	654603.3	4193966.1	6.8	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE INIT.				INIT. URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0009847	0	0.88496E-03	654601.4	4193966.1	6.8	3.66	0.85	1.70	NO
L0009848	0	0.88496E-03	654599.6	4193966.1	6.8	3.66	0.85	1.70	NO
L0009849	0	0.88496E-03	654597.8	4193966.0	6.8	3.66	0.85	1.70	NO
L0009850	0	0.88496E-03	654595.9	4193966.0	6.8	3.66	0.85	1.70	NO
L0009851	0	0.88496E-03	654594.1	4193966.0	6.8	3.66	0.85	1.70	NO
L0009852	0	0.88496E-03	654592.3	4193965.9	6.8	3.66	0.85	1.70	NO
L0009853	0	0.88496E-03	654590.5	4193965.9	6.8	3.66	0.85	1.70	NO
L0009854	0	0.88496E-03	654588.6	4193965.9	6.8	3.66	0.85	1.70	NO
L0009855	0	0.88496E-03	654586.8	4193965.8	6.8	3.66	0.85	1.70	NO
L0009856	0	0.88496E-03	654585.0	4193965.8	6.8	3.66	0.85	1.70	NO
L0009857	0	0.88496E-03	654583.1	4193965.8	6.8	3.66	0.85	1.70	NO
L0009858	0	0.88496E-03	654581.3	4193965.7	6.9	3.66	0.85	1.70	NO
L0009859	0	0.88496E-03	654579.5	4193965.7	6.9	3.66	0.85	1.70	NO
L0009860	0	0.88496E-03	654577.7	4193965.7	6.9	3.66	0.85	1.70	NO
L0009861	0	0.88496E-03	654575.8	4193965.6	6.9	3.66	0.85	1.70	NO
L0009862	0	0.88496E-03	654574.0	4193965.6	6.9	3.66	0.85	1.70	NO
L0009863	0	0.88496E-03	654572.2	4193965.6	6.9	3.66	0.85	1.70	NO
L0009864	0	0.88496E-03	654570.3	4193965.5	6.9	3.66	0.85	1.70	NO

L0009865	0	0.88496E-03	654568.5	4193965.5	6.9	3.66	0.85	1.70	NO
L0009866	0	0.88496E-03	654566.7	4193965.5	6.9	3.66	0.85	1.70	NO
L0009867	0	0.88496E-03	654564.9	4193965.4	6.9	3.66	0.85	1.70	NO
L0009868	0	0.88496E-03	654563.0	4193965.4	6.9	3.66	0.85	1.70	NO
L0009869	0	0.88496E-03	654561.2	4193965.4	6.9	3.66	0.85	1.70	NO
L0009870	0	0.88496E-03	654559.4	4193965.3	7.0	3.66	0.85	1.70	NO
L0009871	0	0.88496E-03	654557.5	4193965.3	7.0	3.66	0.85	1.70	NO
L0009872	0	0.88496E-03	654555.7	4193965.3	7.0	3.66	0.85	1.70	NO
L0009873	0	0.88496E-03	654553.9	4193965.3	7.0	3.66	0.85	1.70	NO
L0009874	0	0.88496E-03	654552.1	4193965.2	7.0	3.66	0.85	1.70	NO
L0009875	0	0.88496E-03	654550.2	4193965.2	7.0	3.66	0.85	1.70	NO
L0009876	0	0.88496E-03	654548.4	4193965.2	7.1	3.66	0.85	1.70	NO
L0009877	0	0.88496E-03	654546.6	4193965.1	7.1	3.66	0.85	1.70	NO
L0009878	0	0.88496E-03	654544.7	4193965.1	7.1	3.66	0.85	1.70	NO
L0009879	0	0.88496E-03	654542.9	4193965.1	7.1	3.66	0.85	1.70	NO
L0009880	0	0.88496E-03	654541.1	4193965.0	7.1	3.66	0.85	1.70	NO
L0009881	0	0.88496E-03	654539.3	4193965.0	7.2	3.66	0.85	1.70	NO
L0009882	0	0.88496E-03	654537.4	4193965.0	7.2	3.66	0.85	1.70	NO
L0009883	0	0.88496E-03	654535.6	4193964.9	7.2	3.66	0.85	1.70	NO
L0009884	0	0.88496E-03	654533.8	4193964.9	7.2	3.66	0.85	1.70	NO
L0009885	0	0.88496E-03	654531.9	4193964.9	7.3	3.66	0.85	1.70	NO
L0009886	0	0.88496E-03	654530.1	4193964.8	7.3	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.	INIT.	URBAN EMISSION RATE		
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0009887	0	0.88496E-03	654528.3	4193964.8	7.3	3.66	0.85	1.70	NO
L0009888	0	0.88496E-03	654526.5	4193964.8	7.3	3.66	0.85	1.70	NO
L0009889	0	0.88496E-03	654524.6	4193964.7	7.4	3.66	0.85	1.70	NO
L0009890	0	0.88496E-03	654522.8	4193964.7	7.4	3.66	0.85	1.70	NO
L0009891	0	0.88496E-03	654521.0	4193964.7	7.4	3.66	0.85	1.70	NO
L0009892	0	0.88496E-03	654519.1	4193964.6	7.5	3.66	0.85	1.70	NO
L0009893	0	0.88496E-03	654517.3	4193964.6	7.5	3.66	0.85	1.70	NO
L0009894	0	0.88496E-03	654515.5	4193964.6	7.5	3.66	0.85	1.70	NO
L0009895	0	0.88496E-03	654513.7	4193964.5	7.5	3.66	0.85	1.70	NO
L0009896	0	0.88496E-03	654511.8	4193964.5	7.6	3.66	0.85	1.70	NO
L0009897	0	0.88496E-03	654510.0	4193964.5	7.6	3.66	0.85	1.70	NO
L0009898	0	0.88496E-03	654508.2	4193964.4	7.6	3.66	0.85	1.70	NO
L0009899	0	0.88496E-03	654506.3	4193964.4	7.7	3.66	0.85	1.70	NO
L0009900	0	0.88496E-03	654504.5	4193964.4	7.7	3.66	0.85	1.70	NO
L0009901	0	0.88496E-03	654502.7	4193964.3	7.7	3.66	0.85	1.70	NO
L0009902	0	0.88496E-03	654500.9	4193964.3	7.8	3.66	0.85	1.70	NO
L0009903	0	0.88496E-03	654499.0	4193964.3	7.8	3.66	0.85	1.70	NO
L0009904	0	0.88496E-03	654497.2	4193964.2	7.8	3.66	0.85	1.70	NO
L0009905	0	0.88496E-03	654495.4	4193964.2	7.8	3.66	0.85	1.70	NO

L0009906	0	0.88496E-03	654493.5	4193964.2	7.9	3.66	0.85	1.70	NO
L0009907	0	0.88496E-03	654491.7	4193964.1	7.9	3.66	0.85	1.70	NO
L0009908	0	0.88496E-03	654489.9	4193964.1	7.9	3.66	0.85	1.70	NO
L0009909	0	0.88496E-03	654488.1	4193964.1	7.9	3.66	0.85	1.70	NO
L0009910	0	0.88496E-03	654486.2	4193964.0	8.0	3.66	0.85	1.70	NO
L0009911	0	0.88496E-03	654484.4	4193964.0	8.0	3.66	0.85	1.70	NO
L0009912	0	0.88496E-03	654482.6	4193964.0	8.0	3.66	0.85	1.70	NO
L0009913	0	0.88496E-03	654480.7	4193963.9	8.0	3.66	0.85	1.70	NO
L0009914	0	0.88496E-03	654478.9	4193963.9	8.0	3.66	0.85	1.70	NO
L0009915	0	0.88496E-03	654477.1	4193963.9	8.1	3.66	0.85	1.70	NO
L0009916	0	0.88496E-03	654475.3	4193963.8	8.1	3.66	0.85	1.70	NO
L0009917	0	0.88496E-03	654473.4	4193963.8	8.1	3.66	0.85	1.70	NO
L0009918	0	0.88496E-03	654471.6	4193963.8	8.1	3.66	0.85	1.70	NO
L0009919	0	0.88496E-03	654469.8	4193963.7	8.1	3.66	0.85	1.70	NO
L0009920	0	0.88496E-03	654467.9	4193963.7	8.1	3.66	0.85	1.70	NO
L0009921	0	0.88496E-03	654466.1	4193963.7	8.2	3.66	0.85	1.70	NO
L0009922	0	0.88496E-03	654464.3	4193963.6	8.2	3.66	0.85	1.70	NO
L0009923	0	0.88496E-03	654462.5	4193963.6	8.2	3.66	0.85	1.70	NO
L0009924	0	0.88496E-03	654460.6	4193963.6	8.2	3.66	0.85	1.70	NO
L0009925	0	0.88496E-03	654458.8	4193963.6	8.2	3.66	0.85	1.70	NO
L0009926	0	0.88496E-03	654457.0	4193963.5	8.2	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE		BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0009927	0	0.88496E-03	654455.1	4193963.5	8.2	3.66	0.85	1.70	NO
L0009928	0	0.88496E-03	654453.3	4193963.5	8.2	3.66	0.85	1.70	NO
L0009929	0	0.88496E-03	654451.5	4193963.4	8.2	3.66	0.85	1.70	NO
L0009930	0	0.88496E-03	654449.7	4193963.4	8.2	3.66	0.85	1.70	NO
L0009931	0	0.88496E-03	654447.8	4193963.4	8.2	3.66	0.85	1.70	NO
L0009932	0	0.88496E-03	654446.0	4193963.3	8.3	3.66	0.85	1.70	NO
L0009933	0	0.88496E-03	654444.2	4193963.3	8.3	3.66	0.85	1.70	NO
L0009934	0	0.88496E-03	654442.3	4193963.3	8.3	3.66	0.85	1.70	NO
L0009935	0	0.88496E-03	654440.5	4193963.2	8.3	3.66	0.85	1.70	NO
L0009936	0	0.88496E-03	654438.7	4193963.2	8.3	3.66	0.85	1.70	NO
L0009937	0	0.36232E-02	654739.7	4193971.9	6.9	3.66	0.85	1.70	NO
L0009938	0	0.36232E-02	654738.8	4193973.5	6.9	3.66	0.85	1.70	NO
L0009939	0	0.36232E-02	654737.8	4193975.0	6.9	3.66	0.85	1.70	NO
L0009940	0	0.36232E-02	654736.8	4193976.5	6.9	3.66	0.85	1.70	NO
L0009941	0	0.36232E-02	654735.8	4193978.1	6.9	3.66	0.85	1.70	NO
L0009942	0	0.36232E-02	654734.8	4193979.6	6.9	3.66	0.85	1.70	NO
L0009943	0	0.36232E-02	654733.8	4193981.2	6.9	3.66	0.85	1.70	NO
L0009944	0	0.36232E-02	654732.8	4193982.7	6.9	3.66	0.85	1.70	NO
L0009945	0	0.36232E-02	654731.8	4193984.2	6.9	3.66	0.85	1.70	NO
L0009946	0	0.36232E-02	654730.8	4193985.8	6.9	3.66	0.85	1.70	NO

L0009947	0	0.36232E-02	654729.8	4193987.3	6.9	3.66	0.85	1.70	NO
L0009948	0	0.36232E-02	654728.9	4193988.8	6.9	3.66	0.85	1.70	NO
L0009949	0	0.36232E-02	654727.9	4193990.4	6.9	3.66	0.85	1.70	NO
L0009950	0	0.36232E-02	654726.9	4193991.9	6.9	3.66	0.85	1.70	NO
L0009951	0	0.36232E-02	654725.9	4193993.5	6.9	3.66	0.85	1.70	NO
L0009952	0	0.36232E-02	654724.9	4193995.0	6.9	3.66	0.85	1.70	NO
L0009953	0	0.36232E-02	654723.9	4193996.5	6.9	3.66	0.85	1.70	NO
L0009954	0	0.36232E-02	654722.9	4193998.1	6.9	3.66	0.85	1.70	NO
L0009955	0	0.36232E-02	654721.9	4193999.6	6.9	3.66	0.85	1.70	NO
L0009956	0	0.36232E-02	654720.9	4194001.1	6.9	3.66	0.85	1.70	NO
L0009957	0	0.36232E-02	654719.9	4194002.7	6.9	3.66	0.85	1.70	NO
L0009958	0	0.36232E-02	654719.0	4194004.2	6.9	3.66	0.85	1.70	NO
L0009959	0	0.36232E-02	654718.0	4194005.8	6.9	3.66	0.85	1.70	NO
L0009960	0	0.36232E-02	654717.0	4194007.3	6.9	3.66	0.85	1.70	NO
L0009961	0	0.36232E-02	654716.0	4194008.8	6.9	3.66	0.85	1.70	NO
L0009962	0	0.36232E-02	654715.0	4194010.4	6.9	3.66	0.85	1.70	NO
L0009963	0	0.36232E-02	654714.0	4194011.9	6.9	3.66	0.85	1.70	NO
L0009964	0	0.36232E-02	654713.0	4194013.4	6.9	3.66	0.85	1.70	NO
L0009965	0	0.36232E-02	654712.0	4194015.0	6.9	3.66	0.85	1.70	NO
L0009966	0	0.36232E-02	654711.0	4194016.5	6.9	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE INIT.			INIT. URBAN EMISSION RATE			
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0009967	0	0.36232E-02	654710.0	4194018.1	7.0	3.66	0.85	1.70	NO
L0009968	0	0.36232E-02	654709.1	4194019.6	7.0	3.66	0.85	1.70	NO
L0009969	0	0.36232E-02	654708.1	4194021.1	7.0	3.66	0.85	1.70	NO
L0009970	0	0.36232E-02	654707.1	4194022.7	7.0	3.66	0.85	1.70	NO
L0009971	0	0.36232E-02	654706.1	4194024.2	7.0	3.66	0.85	1.70	NO
L0009972	0	0.36232E-02	654705.1	4194025.7	7.0	3.66	0.85	1.70	NO
L0009973	0	0.36232E-02	654704.1	4194027.3	7.0	3.66	0.85	1.70	NO
L0009974	0	0.36232E-02	654703.1	4194028.8	7.0	3.66	0.85	1.70	NO
L0009975	0	0.36232E-02	654702.1	4194030.4	7.0	3.66	0.85	1.70	NO
L0009976	0	0.36232E-02	654701.1	4194031.9	7.0	3.66	0.85	1.70	NO
L0009977	0	0.36232E-02	654700.1	4194033.4	7.0	3.66	0.85	1.70	NO
L0009978	0	0.36232E-02	654699.2	4194035.0	7.0	3.66	0.85	1.70	NO
L0009979	0	0.36232E-02	654698.2	4194036.5	7.0	3.66	0.85	1.70	NO
L0009980	0	0.36232E-02	654697.2	4194038.0	7.0	3.66	0.85	1.70	NO
L0009981	0	0.36232E-02	654696.2	4194039.6	7.0	3.66	0.85	1.70	NO
L0009982	0	0.36232E-02	654695.2	4194041.1	7.0	3.66	0.85	1.70	NO
L0009983	0	0.36232E-02	654694.2	4194042.7	7.0	3.66	0.85	1.70	NO
L0009984	0	0.36232E-02	654693.2	4194044.2	7.0	3.66	0.85	1.70	NO
L0009985	0	0.36232E-02	654692.2	4194045.7	7.0	3.66	0.85	1.70	NO
L0009986	0	0.36232E-02	654691.2	4194047.3	7.0	3.66	0.85	1.70	NO
L0009987	0	0.36232E-02	654690.2	4194048.8	7.0	3.66	0.85	1.70	NO

L0009988	0	0.36232E-02	654689.3	4194050.4	7.0	3.66	0.85	1.70	NO
L0009989	0	0.36232E-02	654688.3	4194051.9	7.0	3.66	0.85	1.70	NO
L0009990	0	0.36232E-02	654687.3	4194053.4	7.0	3.66	0.85	1.70	NO
L0009991	0	0.36232E-02	654686.3	4194055.0	7.0	3.66	0.85	1.70	NO
L0009992	0	0.36232E-02	654685.3	4194056.5	7.0	3.66	0.85	1.70	NO
L0009993	0	0.36232E-02	654684.3	4194058.0	7.0	3.66	0.85	1.70	NO
L0009994	0	0.36232E-02	654683.3	4194059.6	7.1	3.66	0.85	1.70	NO
L0009995	0	0.36232E-02	654682.3	4194061.1	7.1	3.66	0.85	1.70	NO
L0009996	0	0.36232E-02	654681.3	4194062.7	7.1	3.66	0.85	1.70	NO
L0009997	0	0.36232E-02	654680.3	4194064.2	7.1	3.66	0.85	1.70	NO
L0009998	0	0.36232E-02	654679.4	4194065.7	7.1	3.66	0.85	1.70	NO
L0009999	0	0.36232E-02	654678.4	4194067.3	7.1	3.66	0.85	1.70	NO
L0010000	0	0.36232E-02	654677.4	4194068.8	7.1	3.66	0.85	1.70	NO
L0010001	0	0.36232E-02	654676.4	4194070.3	7.1	3.66	0.85	1.70	NO
L0010002	0	0.36232E-02	654675.4	4194071.9	7.1	3.66	0.85	1.70	NO
L0010003	0	0.36232E-02	654674.4	4194073.4	7.1	3.66	0.85	1.70	NO
L0010004	0	0.36232E-02	654673.4	4194075.0	7.1	3.66	0.85	1.70	NO
L0010005	0	0.36232E-02	654672.4	4194076.5	7.1	3.66	0.85	1.70	NO
L0010006	0	0.36232E-02	654671.4	4194078.0	7.1	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER		EMISSION RATE		BASE		RELEASE		INIT.		INIT.		URBAN		EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY				
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY				

L0010007	0	0.36232E-02	654670.4	4194079.6	7.1	3.66	0.85	1.70	NO						
L0010008	0	0.36232E-02	654669.5	4194081.1	7.1	3.66	0.85	1.70	NO						
L0010009	0	0.36232E-02	654668.5	4194082.6	7.1	3.66	0.85	1.70	NO						
L0010010	0	0.36232E-02	654667.5	4194084.2	7.2	3.66	0.85	1.70	NO						
L0010011	0	0.36232E-02	654666.5	4194085.7	7.2	3.66	0.85	1.70	NO						
L0010012	0	0.36232E-02	654665.5	4194087.3	7.2	3.66	0.85	1.70	NO						
L0010013	0	0.36232E-02	654664.5	4194088.8	7.2	3.66	0.85	1.70	NO						
L0010014	0	0.36232E-02	654663.5	4194090.3	7.2	3.66	0.85	1.70	NO						
L0010015	0	0.36232E-02	654662.5	4194091.9	7.2	3.66	0.85	1.70	NO						
L0010016	0	0.36232E-02	654661.5	4194093.4	7.2	3.66	0.85	1.70	NO						
L0010017	0	0.36232E-02	654660.5	4194094.9	7.2	3.66	0.85	1.70	NO						
L0010018	0	0.36232E-02	654659.6	4194096.5	7.2	3.66	0.85	1.70	NO						
L0010019	0	0.36232E-02	654658.6	4194098.0	7.2	3.66	0.85	1.70	NO						
L0010020	0	0.36232E-02	654657.6	4194099.6	7.2	3.66	0.85	1.70	NO						
L0010021	0	0.36232E-02	654656.6	4194101.1	7.2	3.66	0.85	1.70	NO						
L0010022	0	0.36232E-02	654655.6	4194102.6	7.2	3.66	0.85	1.70	NO						
L0010023	0	0.36232E-02	654654.6	4194104.2	7.3	3.66	0.85	1.70	NO						
L0010024	0	0.36232E-02	654653.6	4194105.7	7.3	3.66	0.85	1.70	NO						
L0010025	0	0.36232E-02	654652.6	4194107.2	7.3	3.66	0.85	1.70	NO						
L0010026	0	0.36232E-02	654651.6	4194108.8	7.3	3.66	0.85	1.70	NO						
L0010027	0	0.36232E-02	654650.6	4194110.3	7.3	3.66	0.85	1.70	NO						
L0010028	0	0.36232E-02	654649.7	4194111.9	7.3	3.66	0.85	1.70	NO						

L0010029	0	0.36232E-02	654648.7	4194113.4	7.3	3.66	0.85	1.70	NO
L0010030	0	0.36232E-02	654647.7	4194114.9	7.3	3.66	0.85	1.70	NO
L0010031	0	0.36232E-02	654646.7	4194116.5	7.3	3.66	0.85	1.70	NO
L0010032	0	0.36232E-02	654645.7	4194118.0	7.3	3.66	0.85	1.70	NO
L0010033	0	0.36232E-02	654644.7	4194119.5	7.3	3.66	0.85	1.70	NO
L0010034	0	0.36232E-02	654643.7	4194121.1	7.3	3.66	0.85	1.70	NO
L0010035	0	0.36232E-02	654642.7	4194122.6	7.3	3.66	0.85	1.70	NO
L0010036	0	0.36232E-02	654641.7	4194124.2	7.3	3.66	0.85	1.70	NO
L0010037	0	0.36232E-02	654640.7	4194125.7	7.4	3.66	0.85	1.70	NO
L0010038	0	0.36232E-02	654639.8	4194127.2	7.4	3.66	0.85	1.70	NO
L0010039	0	0.36232E-02	654638.8	4194128.8	7.4	3.66	0.85	1.70	NO
L0010040	0	0.36232E-02	654637.8	4194130.3	7.4	3.66	0.85	1.70	NO
L0010041	0	0.36232E-02	654636.8	4194131.8	7.4	3.66	0.85	1.70	NO
L0010042	0	0.36232E-02	654635.8	4194133.4	7.4	3.66	0.85	1.70	NO
L0010043	0	0.36232E-02	654634.8	4194134.9	7.4	3.66	0.85	1.70	NO
L0010044	0	0.36232E-02	654633.8	4194136.5	7.4	3.66	0.85	1.70	NO
L0010045	0	0.36232E-02	654632.8	4194138.0	7.4	3.66	0.85	1.70	NO
L0010046	0	0.36232E-02	654631.8	4194139.5	7.4	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.		INIT. URBAN EMISSION RATE		
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0010047	0	0.36232E-02	654630.8	4194141.1	7.4	3.66	0.85	1.70	NO
L0010048	0	0.36232E-02	654629.9	4194142.6	7.4	3.66	0.85	1.70	NO
L0010049	0	0.36232E-02	654628.9	4194144.1	7.4	3.66	0.85	1.70	NO
L0010050	0	0.36232E-02	654627.9	4194145.7	7.4	3.66	0.85	1.70	NO
L0010051	0	0.36232E-02	654626.9	4194147.2	7.5	3.66	0.85	1.70	NO
L0010052	0	0.36232E-02	654625.9	4194148.8	7.5	3.66	0.85	1.70	NO
L0010053	0	0.36232E-02	654624.9	4194150.3	7.5	3.66	0.85	1.70	NO
L0010054	0	0.36232E-02	654623.9	4194151.8	7.5	3.66	0.85	1.70	NO
L0010055	0	0.36232E-02	654622.9	4194153.4	7.5	3.66	0.85	1.70	NO
L0010056	0	0.36232E-02	654621.9	4194154.9	7.5	3.66	0.85	1.70	NO
L0010057	0	0.36232E-02	654620.9	4194156.4	7.5	3.66	0.85	1.70	NO
L0010058	0	0.36232E-02	654619.9	4194158.0	7.5	3.66	0.85	1.70	NO
L0010059	0	0.36232E-02	654619.0	4194159.5	7.5	3.66	0.85	1.70	NO
L0010060	0	0.36232E-02	654618.0	4194161.1	7.5	3.66	0.85	1.70	NO
L0010061	0	0.36232E-02	654617.0	4194162.6	7.5	3.66	0.85	1.70	NO
L0010062	0	0.36232E-02	654616.0	4194164.1	7.5	3.66	0.85	1.70	NO
L0010063	0	0.36232E-02	654615.0	4194165.7	7.5	3.66	0.85	1.70	NO
L0010064	0	0.36232E-02	654614.0	4194167.2	7.5	3.66	0.85	1.70	NO
L0010065	0	0.36232E-02	654613.0	4194168.7	7.5	3.66	0.85	1.70	NO
L0010066	0	0.36232E-02	654612.0	4194170.3	7.5	3.66	0.85	1.70	NO
L0010067	0	0.36232E-02	654611.0	4194171.8	7.5	3.66	0.85	1.70	NO
L0010068	0	0.36232E-02	654610.0	4194173.4	7.5	3.66	0.85	1.70	NO
L0010069	0	0.36232E-02	654609.1	4194174.9	7.5	3.66	0.85	1.70	NO

L0010070	0	0.36232E-02	654608.1	4194176.4	7.5	3.66	0.85	1.70	NO
L0010071	0	0.36232E-02	654607.1	4194178.0	7.5	3.66	0.85	1.70	NO
L0010072	0	0.36232E-02	654606.1	4194179.5	7.5	3.66	0.85	1.70	NO
L0010073	0	0.36232E-02	654605.1	4194181.0	7.5	3.66	0.85	1.70	NO
L0010074	0	0.36232E-02	654604.1	4194182.6	7.5	3.66	0.85	1.70	NO
L0010075	0	0.36232E-02	654603.1	4194184.1	7.5	3.66	0.85	1.70	NO
L0010076	0	0.36232E-02	654602.1	4194185.7	7.6	3.66	0.85	1.70	NO
L0010077	0	0.36232E-02	654601.1	4194187.2	7.6	3.66	0.85	1.70	NO
L0010078	0	0.36232E-02	654600.1	4194188.7	7.6	3.66	0.85	1.70	NO
L0010079	0	0.36232E-02	654599.2	4194190.3	7.6	3.66	0.85	1.70	NO
L0010080	0	0.36232E-02	654598.2	4194191.8	7.6	3.66	0.85	1.70	NO
L0010081	0	0.36232E-02	654597.2	4194193.3	7.6	3.66	0.85	1.70	NO
L0010082	0	0.36232E-02	654596.2	4194194.9	7.6	3.66	0.85	1.70	NO
L0010083	0	0.36232E-02	654595.2	4194196.4	7.6	3.66	0.85	1.70	NO
L0010084	0	0.36232E-02	654594.2	4194198.0	7.6	3.66	0.85	1.70	NO
L0010085	0	0.36232E-02	654593.2	4194199.5	7.6	3.66	0.85	1.70	NO
L0010086	0	0.36232E-02	654592.2	4194201.0	7.6	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE INIT. INIT. URBAN EMISSION RATE				SOURCE SCALAR VARY	
SOURCE ID	PART. CATS.	(GRAMS/SEC)	X Y	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)		BY

L0010087	0	0.36232E-02	654591.2	4194202.6	7.6	3.66	0.85	1.70	NO
L0010088	0	0.36232E-02	654590.2	4194204.1	7.6	3.66	0.85	1.70	NO
L0010089	0	0.36232E-02	654589.3	4194205.6	7.6	3.66	0.85	1.70	NO
L0010090	0	0.36232E-02	654588.3	4194207.2	7.6	3.66	0.85	1.70	NO
L0010091	0	0.36232E-02	654587.3	4194208.7	7.6	3.66	0.85	1.70	NO
L0010092	0	0.36232E-02	654586.3	4194210.3	7.6	3.66	0.85	1.70	NO
L0010093	0	0.36232E-02	654585.3	4194211.8	7.6	3.66	0.85	1.70	NO
L0010094	0	0.36232E-02	654584.3	4194213.3	7.6	3.66	0.85	1.70	NO
L0010095	0	0.36232E-02	654583.3	4194214.9	7.6	3.66	0.85	1.70	NO
L0010096	0	0.36232E-02	654582.3	4194216.4	7.6	3.66	0.85	1.70	NO
L0010097	0	0.36232E-02	654581.3	4194218.0	7.6	3.66	0.85	1.70	NO
L0010098	0	0.36232E-02	654580.3	4194219.5	7.6	3.66	0.85	1.70	NO
L0010099	0	0.36232E-02	654579.4	4194221.0	7.6	3.66	0.85	1.70	NO
L0010100	0	0.36232E-02	654578.4	4194222.6	7.6	3.66	0.85	1.70	NO
L0010101	0	0.36232E-02	654577.4	4194224.1	7.6	3.66	0.85	1.70	NO
L0010102	0	0.36232E-02	654576.4	4194225.6	7.6	3.66	0.85	1.70	NO
L0010103	0	0.36232E-02	654575.4	4194227.2	7.6	3.66	0.85	1.70	NO
L0010104	0	0.36232E-02	654574.4	4194228.7	7.6	3.66	0.85	1.70	NO
L0010105	0	0.36232E-02	654573.4	4194230.3	7.6	3.66	0.85	1.70	NO
L0010106	0	0.36232E-02	654572.4	4194231.8	7.6	3.66	0.85	1.70	NO
L0010107	0	0.36232E-02	654571.4	4194233.3	7.6	3.66	0.85	1.70	NO
L0010108	0	0.36232E-02	654570.4	4194234.9	7.6	3.66	0.85	1.70	NO
L0010109	0	0.36232E-02	654569.5	4194236.4	7.6	3.66	0.85	1.70	NO
L0010110	0	0.36232E-02	654568.5	4194237.9	7.6	3.66	0.85	1.70	NO

L0010111	0	0.36232E-02	654567.5	4194239.5	7.6	3.66	0.85	1.70	NO
L0010112	0	0.36232E-02	654566.5	4194241.0	7.6	3.66	0.85	1.70	NO
L0010113	0	0.36232E-02	654565.5	4194242.6	7.6	3.66	0.85	1.70	NO
L0010114	0	0.36232E-02	654564.5	4194244.1	7.6	3.66	0.85	1.70	NO
L0010115	0	0.36232E-02	654563.5	4194245.6	7.6	3.66	0.85	1.70	NO
L0010116	0	0.36232E-02	654562.5	4194247.2	7.6	3.66	0.85	1.70	NO
L0010117	0	0.36232E-02	654561.5	4194248.7	7.6	3.66	0.85	1.70	NO
L0010118	0	0.36232E-02	654560.5	4194250.2	7.6	3.66	0.85	1.70	NO
L0010119	0	0.36232E-02	654559.6	4194251.8	7.6	3.66	0.85	1.70	NO
L0010120	0	0.36232E-02	654558.6	4194253.3	7.6	3.66	0.85	1.70	NO
L0010121	0	0.36232E-02	654557.6	4194254.9	7.6	3.66	0.85	1.70	NO
L0010122	0	0.36232E-02	654556.6	4194256.4	7.6	3.66	0.85	1.70	NO
L0010123	0	0.36232E-02	654555.6	4194257.9	7.6	3.66	0.85	1.70	NO
L0010124	0	0.36232E-02	654554.6	4194259.5	7.6	3.66	0.85	1.70	NO
L0010125	0	0.36232E-02	654553.6	4194261.0	7.6	3.66	0.85	1.70	NO
L0010126	0	0.36232E-02	654552.6	4194262.5	7.6	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY	

L0010127	0	0.36232E-02	654551.6	4194264.1	7.6	3.66	0.85	1.70	NO		
L0010128	0	0.36232E-02	654550.6	4194265.6	7.6	3.66	0.85	1.70	NO		
L0010129	0	0.36232E-02	654549.7	4194267.2	7.6	3.66	0.85	1.70	NO		
L0010130	0	0.36232E-02	654548.7	4194268.7	7.6	3.66	0.85	1.70	NO		
L0010131	0	0.36232E-02	654547.7	4194270.2	7.6	3.66	0.85	1.70	NO		
L0010132	0	0.36232E-02	654546.7	4194271.8	7.6	3.66	0.85	1.70	NO		
L0010133	0	0.36232E-02	654545.7	4194273.3	7.6	3.66	0.85	1.70	NO		
L0010134	0	0.36232E-02	654544.7	4194274.8	7.6	3.66	0.85	1.70	NO		
L0010135	0	0.36232E-02	654543.7	4194276.4	7.6	3.66	0.85	1.70	NO		
L0010136	0	0.36232E-02	654542.7	4194277.9	7.6	3.66	0.85	1.70	NO		
L0010137	0	0.36232E-02	654541.7	4194279.5	7.6	3.66	0.85	1.70	NO		
L0010138	0	0.36232E-02	654540.7	4194281.0	7.6	3.66	0.85	1.70	NO		
L0010139	0	0.36232E-02	654539.8	4194282.5	7.6	3.66	0.85	1.70	NO		
L0010140	0	0.36232E-02	654538.8	4194284.1	7.6	3.66	0.85	1.70	NO		
L0010141	0	0.36232E-02	654537.8	4194285.6	7.6	3.66	0.85	1.70	NO		
L0010142	0	0.36232E-02	654536.8	4194287.1	7.6	3.66	0.85	1.70	NO		
L0010143	0	0.36232E-02	654535.8	4194288.7	7.6	3.66	0.85	1.70	NO		
L0010144	0	0.36232E-02	654534.8	4194290.2	7.6	3.66	0.85	1.70	NO		
L0010145	0	0.36232E-02	654533.8	4194291.8	7.6	3.66	0.85	1.70	NO		
L0010146	0	0.36232E-02	654532.8	4194293.3	7.6	3.66	0.85	1.70	NO		
L0010147	0	0.36232E-02	654531.8	4194294.8	7.6	3.66	0.85	1.70	NO		
L0010148	0	0.36232E-02	654530.8	4194296.4	7.6	3.66	0.85	1.70	NO		
L0010149	0	0.36232E-02	654529.9	4194297.9	7.6	3.66	0.85	1.70	NO		
L0010150	0	0.36232E-02	654528.9	4194299.4	7.6	3.66	0.85	1.70	NO		
L0010151	0	0.36232E-02	654527.9	4194301.0	7.6	3.66	0.85	1.70	NO		

L0010152	0	0.36232E-02	654526.9	4194302.5	7.6	3.66	0.85	1.70	NO
L0010153	0	0.36232E-02	654525.9	4194304.1	7.6	3.66	0.85	1.70	NO
L0010154	0	0.36232E-02	654524.9	4194305.6	7.6	3.66	0.85	1.70	NO
L0010155	0	0.36232E-02	654523.9	4194307.1	7.6	3.66	0.85	1.70	NO
L0010156	0	0.36232E-02	654522.9	4194308.7	7.6	3.66	0.85	1.70	NO
L0010157	0	0.36232E-02	654521.9	4194310.2	7.6	3.66	0.85	1.70	NO
L0010158	0	0.36232E-02	654520.9	4194311.7	7.6	3.66	0.85	1.70	NO
L0010159	0	0.36232E-02	654520.0	4194313.3	7.6	3.66	0.85	1.70	NO
L0010160	0	0.36232E-02	654519.0	4194314.8	7.6	3.66	0.85	1.70	NO
L0010161	0	0.36232E-02	654518.0	4194316.4	7.6	3.66	0.85	1.70	NO
L0010162	0	0.36232E-02	654517.0	4194317.9	7.6	3.66	0.85	1.70	NO
L0010163	0	0.36232E-02	654516.0	4194319.4	7.6	3.66	0.85	1.70	NO
L0010164	0	0.36232E-02	654515.0	4194321.0	7.6	3.66	0.85	1.70	NO
L0010165	0	0.36232E-02	654514.0	4194322.5	7.6	3.66	0.85	1.70	NO
L0010166	0	0.36232E-02	654513.0	4194324.0	7.5	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	BASE X (METERS)	RELEASE Y (METERS)	INIT. ELEV. (METERS)	INIT. HEIGHT (METERS)	SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE (METERS)	EMISSION SCALAR VARY BY

L0010167	0	0.36232E-02	654512.0	4194325.6	7.5	3.66	0.85	1.70	NO	
L0010168	0	0.36232E-02	654511.0	4194327.1	7.5	3.66	0.85	1.70	NO	
L0010169	0	0.36232E-02	654510.1	4194328.7	7.5	3.66	0.85	1.70	NO	
L0010170	0	0.36232E-02	654509.1	4194330.2	7.5	3.66	0.85	1.70	NO	
L0010171	0	0.36232E-02	654508.1	4194331.7	7.5	3.66	0.85	1.70	NO	
L0010172	0	0.36232E-02	654507.1	4194333.3	7.5	3.66	0.85	1.70	NO	
L0010173	0	0.36232E-02	654506.1	4194334.8	7.5	3.66	0.85	1.70	NO	
L0010174	0	0.36232E-02	654505.1	4194336.3	7.5	3.66	0.85	1.70	NO	
L0010175	0	0.36232E-02	654504.1	4194337.9	7.5	3.66	0.85	1.70	NO	
L0010176	0	0.36232E-02	654503.1	4194339.4	7.5	3.66	0.85	1.70	NO	
L0010177	0	0.36232E-02	654502.1	4194341.0	7.5	3.66	0.85	1.70	NO	
L0010178	0	0.36232E-02	654501.1	4194342.5	7.5	3.66	0.85	1.70	NO	
L0010179	0	0.36232E-02	654500.2	4194344.0	7.5	3.66	0.85	1.70	NO	
L0010180	0	0.36232E-02	654499.2	4194345.6	7.5	3.66	0.85	1.70	NO	
L0010181	0	0.36232E-02	654498.2	4194347.1	7.5	3.66	0.85	1.70	NO	
L0010182	0	0.36232E-02	654497.2	4194348.6	7.5	3.66	0.85	1.70	NO	
L0010183	0	0.36232E-02	654496.2	4194350.2	7.5	3.66	0.85	1.70	NO	
L0010184	0	0.36232E-02	654495.2	4194351.7	7.5	3.66	0.85	1.70	NO	
L0010185	0	0.36232E-02	654494.2	4194353.3	7.5	3.66	0.85	1.70	NO	
L0010186	0	0.36232E-02	654493.2	4194354.8	7.5	3.66	0.85	1.70	NO	
L0010187	0	0.36232E-02	654492.2	4194356.3	7.5	3.66	0.85	1.70	NO	
L0010188	0	0.36232E-02	654491.2	4194357.9	7.5	3.66	0.85	1.70	NO	
L0010189	0	0.36232E-02	654490.2	4194359.4	7.5	3.66	0.85	1.70	NO	
L0010190	0	0.36232E-02	654489.3	4194361.0	7.5	3.66	0.85	1.70	NO	
L0010191	0	0.36232E-02	654488.3	4194362.5	7.5	3.66	0.85	1.70	NO	
L0010192	0	0.36232E-02	654487.3	4194364.0	7.5	3.66	0.85	1.70	NO	

L0010193	0	0.36232E-02	654486.3	4194365.6	7.5	3.66	0.85	1.70	NO
L0010194	0	0.36232E-02	654485.3	4194367.1	7.5	3.66	0.85	1.70	NO
L0010195	0	0.36232E-02	654484.3	4194368.6	7.5	3.66	0.85	1.70	NO
L0010196	0	0.36232E-02	654483.3	4194370.2	7.5	3.66	0.85	1.70	NO
L0010197	0	0.36232E-02	654482.3	4194371.7	7.5	3.66	0.85	1.70	NO
L0010198	0	0.36232E-02	654481.3	4194373.2	7.5	3.66	0.85	1.70	NO
L0010199	0	0.36232E-02	654480.3	4194374.8	7.5	3.66	0.85	1.70	NO
L0010200	0	0.36232E-02	654479.4	4194376.3	7.5	3.66	0.85	1.70	NO
L0010201	0	0.36232E-02	654478.4	4194377.9	7.5	3.66	0.85	1.70	NO
L0010202	0	0.36232E-02	654477.4	4194379.4	7.5	3.66	0.85	1.70	NO
L0010203	0	0.36232E-02	654476.4	4194380.9	7.5	3.66	0.85	1.70	NO
L0010204	0	0.36232E-02	654475.4	4194382.5	7.5	3.66	0.85	1.70	NO
L0010205	0	0.36232E-02	654474.4	4194384.0	7.5	3.66	0.85	1.70	NO
L0010206	0	0.36232E-02	654473.4	4194385.6	7.5	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	BASE X (METERS)	RELEASE Y (METERS)	INIT. ELEV. (METERS)	INIT. HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION SCALAR	RATE VARY BY

L0010207	0	0.36232E-02	654472.4	4194387.1	7.5	3.66	0.85	1.70	NO		
L0010208	0	0.36232E-02	654471.4	4194388.6	7.5	3.66	0.85	1.70	NO		
L0010209	0	0.36232E-02	654470.4	4194390.2	7.5	3.66	0.85	1.70	NO		
L0010210	0	0.36232E-02	654469.5	4194391.7	7.5	3.66	0.85	1.70	NO		
L0010211	0	0.36232E-02	654468.5	4194393.2	7.5	3.66	0.85	1.70	NO		
L0010212	0	0.36232E-02	654467.5	4194394.8	7.5	3.66	0.85	1.70	NO		
L0010213	0	0.29499E-02	655093.5	4193976.1	7.3	3.66	0.85	1.70	NO		
L0010214	0	0.29499E-02	655092.6	4193977.6	7.3	3.66	0.85	1.70	NO		
L0010215	0	0.29499E-02	655091.7	4193979.2	7.3	3.66	0.85	1.70	NO		
L0010216	0	0.29499E-02	655090.7	4193980.8	7.3	3.66	0.85	1.70	NO		
L0010217	0	0.29499E-02	655089.8	4193982.3	7.3	3.66	0.85	1.70	NO		
L0010218	0	0.29499E-02	655088.8	4193983.9	7.3	3.66	0.85	1.70	NO		
L0010219	0	0.29499E-02	655087.9	4193985.5	7.3	3.66	0.85	1.70	NO		
L0010220	0	0.29499E-02	655086.9	4193987.0	7.3	3.66	0.85	1.70	NO		
L0010221	0	0.29499E-02	655086.0	4193988.6	7.3	3.66	0.85	1.70	NO		
L0010222	0	0.29499E-02	655085.0	4193990.2	7.3	3.66	0.85	1.70	NO		
L0010223	0	0.29499E-02	655084.1	4193991.7	7.3	3.66	0.85	1.70	NO		
L0010224	0	0.29499E-02	655083.1	4193993.3	7.3	3.66	0.85	1.70	NO		
L0010225	0	0.29499E-02	655082.2	4193994.9	7.3	3.66	0.85	1.70	NO		
L0010226	0	0.29499E-02	655081.2	4193996.4	7.3	3.66	0.85	1.70	NO		
L0010227	0	0.29499E-02	655080.3	4193998.0	7.3	3.66	0.85	1.70	NO		
L0010228	0	0.29499E-02	655079.3	4193999.5	7.3	3.66	0.85	1.70	NO		
L0010229	0	0.29499E-02	655078.4	4194001.1	7.3	3.66	0.85	1.70	NO		
L0010230	0	0.29499E-02	655077.4	4194002.7	7.3	3.66	0.85	1.70	NO		
L0010231	0	0.29499E-02	655076.5	4194004.2	7.3	3.66	0.85	1.70	NO		
L0010232	0	0.29499E-02	655075.6	4194005.8	7.3	3.66	0.85	1.70	NO		
L0010233	0	0.29499E-02	655074.6	4194007.4	7.3	3.66	0.85	1.70	NO		

L0010234	0	0.29499E-02	655073.7	4194008.9	7.3	3.66	0.85	1.70	NO
L0010235	0	0.29499E-02	655072.7	4194010.5	7.3	3.66	0.85	1.70	NO
L0010236	0	0.29499E-02	655071.8	4194012.1	7.3	3.66	0.85	1.70	NO
L0010237	0	0.29499E-02	655070.8	4194013.6	7.3	3.66	0.85	1.70	NO
L0010238	0	0.29499E-02	655069.9	4194015.2	7.3	3.66	0.85	1.70	NO
L0010239	0	0.29499E-02	655068.9	4194016.8	7.3	3.66	0.85	1.70	NO
L0010240	0	0.29499E-02	655068.0	4194018.3	7.3	3.66	0.85	1.70	NO
L0010241	0	0.29499E-02	655067.0	4194019.9	7.4	3.66	0.85	1.70	NO
L0010242	0	0.29499E-02	655066.1	4194021.5	7.4	3.66	0.85	1.70	NO
L0010243	0	0.29499E-02	655065.1	4194023.0	7.4	3.66	0.85	1.70	NO
L0010244	0	0.29499E-02	655064.2	4194024.6	7.4	3.66	0.85	1.70	NO
L0010245	0	0.29499E-02	655063.2	4194026.1	7.4	3.66	0.85	1.70	NO
L0010246	0	0.29499E-02	655062.3	4194027.7	7.4	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY

L0010247	0	0.29499E-02	655061.3	4194029.3	7.4	3.66	0.85	1.70	NO	
L0010248	0	0.29499E-02	655060.4	4194030.8	7.4	3.66	0.85	1.70	NO	
L0010249	0	0.29499E-02	655059.4	4194032.4	7.4	3.66	0.85	1.70	NO	
L0010250	0	0.29499E-02	655058.5	4194034.0	7.4	3.66	0.85	1.70	NO	
L0010251	0	0.29499E-02	655057.6	4194035.5	7.4	3.66	0.85	1.70	NO	
L0010252	0	0.29499E-02	655056.6	4194037.1	7.4	3.66	0.85	1.70	NO	
L0010253	0	0.29499E-02	655055.7	4194038.7	7.4	3.66	0.85	1.70	NO	
L0010254	0	0.29499E-02	655054.7	4194040.2	7.4	3.66	0.85	1.70	NO	
L0010255	0	0.29499E-02	655053.8	4194041.8	7.4	3.66	0.85	1.70	NO	
L0010256	0	0.29499E-02	655052.8	4194043.4	7.4	3.66	0.85	1.70	NO	
L0010257	0	0.29499E-02	655051.9	4194044.9	7.4	3.66	0.85	1.70	NO	
L0010258	0	0.29499E-02	655050.9	4194046.5	7.4	3.66	0.85	1.70	NO	
L0010259	0	0.29499E-02	655050.0	4194048.0	7.4	3.66	0.85	1.70	NO	
L0010260	0	0.29499E-02	655049.0	4194049.6	7.4	3.66	0.85	1.70	NO	
L0010261	0	0.29499E-02	655048.1	4194051.2	7.4	3.66	0.85	1.70	NO	
L0010262	0	0.29499E-02	655047.1	4194052.7	7.4	3.66	0.85	1.70	NO	
L0010263	0	0.29499E-02	655046.2	4194054.3	7.4	3.66	0.85	1.70	NO	
L0010264	0	0.29499E-02	655045.2	4194055.9	7.4	3.66	0.85	1.70	NO	
L0010265	0	0.29499E-02	655044.3	4194057.4	7.4	3.66	0.85	1.70	NO	
L0010266	0	0.29499E-02	655043.3	4194059.0	7.4	3.66	0.85	1.70	NO	
L0010267	0	0.29499E-02	655042.4	4194060.6	7.4	3.66	0.85	1.70	NO	
L0010268	0	0.29499E-02	655041.5	4194062.1	7.4	3.66	0.85	1.70	NO	
L0010269	0	0.29499E-02	655040.5	4194063.7	7.4	3.66	0.85	1.70	NO	
L0010270	0	0.29499E-02	655039.6	4194065.3	7.4	3.66	0.85	1.70	NO	
L0010271	0	0.29499E-02	655038.6	4194066.8	7.4	3.66	0.85	1.70	NO	
L0010272	0	0.29499E-02	655037.7	4194068.4	7.4	3.66	0.85	1.70	NO	
L0010273	0	0.29499E-02	655036.7	4194069.9	7.4	3.66	0.85	1.70	NO	
L0010274	0	0.29499E-02	655035.8	4194071.5	7.4	3.66	0.85	1.70	NO	

L0010275	0	0.29499E-02	655034.8	4194073.1	7.4	3.66	0.85	1.70	NO
L0010276	0	0.29499E-02	655033.9	4194074.6	7.4	3.66	0.85	1.70	NO
L0010277	0	0.29499E-02	655032.9	4194076.2	7.4	3.66	0.85	1.70	NO
L0010278	0	0.29499E-02	655032.0	4194077.8	7.4	3.66	0.85	1.70	NO
L0010279	0	0.29499E-02	655031.0	4194079.3	7.4	3.66	0.85	1.70	NO
L0010280	0	0.29499E-02	655030.1	4194080.9	7.4	3.66	0.85	1.70	NO
L0010281	0	0.29499E-02	655029.1	4194082.5	7.4	3.66	0.85	1.70	NO
L0010282	0	0.29499E-02	655028.2	4194084.0	7.4	3.66	0.85	1.70	NO
L0010283	0	0.29499E-02	655027.2	4194085.6	7.4	3.66	0.85	1.70	NO
L0010284	0	0.29499E-02	655026.3	4194087.2	7.4	3.66	0.85	1.70	NO
L0010285	0	0.29499E-02	655025.4	4194088.7	7.4	3.66	0.85	1.70	NO
L0010286	0	0.29499E-02	655024.4	4194090.3	7.4	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE INIT.				INIT. URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0010287	0	0.29499E-02	655023.5	4194091.8	7.4	3.66	0.85	1.70	NO
L0010288	0	0.29499E-02	655022.5	4194093.4	7.4	3.66	0.85	1.70	NO
L0010289	0	0.29499E-02	655021.6	4194095.0	7.4	3.66	0.85	1.70	NO
L0010290	0	0.29499E-02	655020.6	4194096.5	7.4	3.66	0.85	1.70	NO
L0010291	0	0.29499E-02	655019.7	4194098.1	7.4	3.66	0.85	1.70	NO
L0010292	0	0.29499E-02	655018.7	4194099.7	7.4	3.66	0.85	1.70	NO
L0010293	0	0.29499E-02	655017.8	4194101.2	7.4	3.66	0.85	1.70	NO
L0010294	0	0.29499E-02	655016.8	4194102.8	7.4	3.66	0.85	1.70	NO
L0010295	0	0.29499E-02	655015.9	4194104.4	7.4	3.66	0.85	1.70	NO
L0010296	0	0.29499E-02	655014.9	4194105.9	7.4	3.66	0.85	1.70	NO
L0010297	0	0.29499E-02	655014.0	4194107.5	7.4	3.66	0.85	1.70	NO
L0010298	0	0.29499E-02	655013.0	4194109.1	7.4	3.66	0.85	1.70	NO
L0010299	0	0.29499E-02	655012.1	4194110.6	7.4	3.66	0.85	1.70	NO
L0010300	0	0.29499E-02	655011.1	4194112.2	7.4	3.66	0.85	1.70	NO
L0010301	0	0.29499E-02	655010.2	4194113.8	7.4	3.66	0.85	1.70	NO
L0010302	0	0.29499E-02	655009.2	4194115.3	7.4	3.66	0.85	1.70	NO
L0010303	0	0.29499E-02	655008.3	4194116.9	7.4	3.66	0.85	1.70	NO
L0010304	0	0.29499E-02	655007.4	4194118.4	7.4	3.66	0.85	1.70	NO
L0010305	0	0.29499E-02	655006.4	4194120.0	7.4	3.66	0.85	1.70	NO
L0010306	0	0.29499E-02	655005.5	4194121.6	7.4	3.66	0.85	1.70	NO
L0010307	0	0.29499E-02	655004.5	4194123.1	7.4	3.66	0.85	1.70	NO
L0010308	0	0.29499E-02	655003.6	4194124.7	7.4	3.66	0.85	1.70	NO
L0010309	0	0.29499E-02	655002.6	4194126.3	7.4	3.66	0.85	1.70	NO
L0010310	0	0.29499E-02	655001.7	4194127.8	7.4	3.66	0.85	1.70	NO
L0010311	0	0.29499E-02	655000.7	4194129.4	7.4	3.66	0.85	1.70	NO
L0010312	0	0.29499E-02	654999.8	4194131.0	7.4	3.66	0.85	1.70	NO
L0010313	0	0.29499E-02	654998.8	4194132.5	7.4	3.66	0.85	1.70	NO
L0010314	0	0.29499E-02	654997.9	4194134.1	7.4	3.66	0.85	1.70	NO
L0010315	0	0.29499E-02	654996.9	4194135.7	7.4	3.66	0.85	1.70	NO

L0010316	0	0.29499E-02	654996.0	4194137.2	7.4	3.66	0.85	1.70	NO
L0010317	0	0.29499E-02	654995.0	4194138.8	7.4	3.66	0.85	1.70	NO
L0010318	0	0.29499E-02	654994.1	4194140.3	7.4	3.66	0.85	1.70	NO
L0010319	0	0.29499E-02	654993.1	4194141.9	7.4	3.66	0.85	1.70	NO
L0010320	0	0.29499E-02	654992.2	4194143.5	7.4	3.66	0.85	1.70	NO
L0010321	0	0.29499E-02	654991.3	4194145.0	7.4	3.66	0.85	1.70	NO
L0010322	0	0.29499E-02	654990.3	4194146.6	7.4	3.66	0.85	1.70	NO
L0010323	0	0.29499E-02	654989.4	4194148.2	7.4	3.66	0.85	1.70	NO
L0010324	0	0.29499E-02	654988.4	4194149.7	7.4	3.66	0.85	1.70	NO
L0010325	0	0.29499E-02	654987.5	4194151.3	7.4	3.66	0.85	1.70	NO
L0010326	0	0.29499E-02	654986.5	4194152.9	7.4	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE INIT.				INIT. URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0010327	0	0.29499E-02	654985.6	4194154.4	7.4	3.66	0.85	1.70	NO
L0010328	0	0.29499E-02	654984.6	4194156.0	7.5	3.66	0.85	1.70	NO
L0010329	0	0.29499E-02	654983.7	4194157.6	7.5	3.66	0.85	1.70	NO
L0010330	0	0.29499E-02	654982.7	4194159.1	7.5	3.66	0.85	1.70	NO
L0010331	0	0.29499E-02	654981.8	4194160.7	7.4	3.66	0.85	1.70	NO
L0010332	0	0.29499E-02	654980.8	4194162.2	7.4	3.66	0.85	1.70	NO
L0010333	0	0.29499E-02	654979.9	4194163.8	7.4	3.66	0.85	1.70	NO
L0010334	0	0.29499E-02	654978.9	4194165.4	7.4	3.66	0.85	1.70	NO
L0010335	0	0.29499E-02	654978.0	4194166.9	7.4	3.66	0.85	1.70	NO
L0010336	0	0.29499E-02	654977.0	4194168.5	7.4	3.66	0.85	1.70	NO
L0010337	0	0.29499E-02	654976.1	4194170.1	7.4	3.66	0.85	1.70	NO
L0010338	0	0.29499E-02	654975.1	4194171.6	7.4	3.66	0.85	1.70	NO
L0010339	0	0.29499E-02	654974.2	4194173.2	7.4	3.66	0.85	1.70	NO
L0010340	0	0.29499E-02	654973.3	4194174.8	7.4	3.66	0.85	1.70	NO
L0010341	0	0.29499E-02	654972.3	4194176.3	7.5	3.66	0.85	1.70	NO
L0010342	0	0.29499E-02	654971.4	4194177.9	7.5	3.66	0.85	1.70	NO
L0010343	0	0.29499E-02	654970.4	4194179.5	7.5	3.66	0.85	1.70	NO
L0010344	0	0.29499E-02	654969.5	4194181.0	7.5	3.66	0.85	1.70	NO
L0010345	0	0.29499E-02	654968.5	4194182.6	7.5	3.66	0.85	1.70	NO
L0010346	0	0.29499E-02	654967.6	4194184.1	7.5	3.66	0.85	1.70	NO
L0010347	0	0.29499E-02	654966.6	4194185.7	7.5	3.66	0.85	1.70	NO
L0010348	0	0.29499E-02	654965.7	4194187.3	7.5	3.66	0.85	1.70	NO
L0010349	0	0.29499E-02	654964.7	4194188.8	7.5	3.66	0.85	1.70	NO
L0010350	0	0.29499E-02	654963.8	4194190.4	7.5	3.66	0.85	1.70	NO
L0010351	0	0.29499E-02	654962.8	4194192.0	7.5	3.66	0.85	1.70	NO
L0010352	0	0.29499E-02	654961.9	4194193.5	7.5	3.66	0.85	1.70	NO
L0010353	0	0.29499E-02	654960.9	4194195.1	7.5	3.66	0.85	1.70	NO
L0010354	0	0.29499E-02	654960.0	4194196.7	7.5	3.66	0.85	1.70	NO
L0010355	0	0.29499E-02	654959.0	4194198.2	7.5	3.66	0.85	1.70	NO
L0010356	0	0.29499E-02	654958.1	4194199.8	7.5	3.66	0.85	1.70	NO

L0010357	0	0.29499E-02	654957.2	4194201.4	7.5	3.66	0.85	1.70	NO
L0010358	0	0.29499E-02	654956.2	4194202.9	7.5	3.66	0.85	1.70	NO
L0010359	0	0.29499E-02	654955.3	4194204.5	7.5	3.66	0.85	1.70	NO
L0010360	0	0.29499E-02	654954.3	4194206.0	7.5	3.66	0.85	1.70	NO
L0010361	0	0.29499E-02	654953.4	4194207.6	7.5	3.66	0.85	1.70	NO
L0010362	0	0.29499E-02	654952.4	4194209.2	7.5	3.66	0.85	1.70	NO
L0010363	0	0.29499E-02	654951.5	4194210.7	7.5	3.66	0.85	1.70	NO
L0010364	0	0.29499E-02	654950.5	4194212.3	7.5	3.66	0.85	1.70	NO
L0010365	0	0.29499E-02	654949.6	4194213.9	7.5	3.66	0.85	1.70	NO
L0010366	0	0.29499E-02	654948.6	4194215.4	7.5	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE		BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0010367	0	0.29499E-02	654947.7	4194217.0	7.5	3.66	0.85	1.70	NO
L0010368	0	0.29499E-02	654946.7	4194218.6	7.5	3.66	0.85	1.70	NO
L0010369	0	0.29499E-02	654945.8	4194220.1	7.5	3.66	0.85	1.70	NO
L0010370	0	0.29499E-02	654944.8	4194221.7	7.5	3.66	0.85	1.70	NO
L0010371	0	0.29499E-02	654943.9	4194223.3	7.5	3.66	0.85	1.70	NO
L0010372	0	0.29499E-02	654942.9	4194224.8	7.5	3.66	0.85	1.70	NO
L0010373	0	0.29499E-02	654942.0	4194226.4	7.5	3.66	0.85	1.70	NO
L0010374	0	0.29499E-02	654941.1	4194228.0	7.5	3.66	0.85	1.70	NO
L0010375	0	0.29499E-02	654940.1	4194229.5	7.5	3.66	0.85	1.70	NO
L0010376	0	0.29499E-02	654939.2	4194231.1	7.5	3.66	0.85	1.70	NO
L0010377	0	0.29499E-02	654938.2	4194232.6	7.5	3.66	0.85	1.70	NO
L0010378	0	0.29499E-02	654937.3	4194234.2	7.5	3.66	0.85	1.70	NO
L0010379	0	0.29499E-02	654936.3	4194235.8	7.5	3.66	0.85	1.70	NO
L0010380	0	0.29499E-02	654935.4	4194237.3	7.5	3.66	0.85	1.70	NO
L0010381	0	0.29499E-02	654934.4	4194238.9	7.5	3.66	0.85	1.70	NO
L0010382	0	0.29499E-02	654933.5	4194240.5	7.5	3.66	0.85	1.70	NO
L0010383	0	0.29499E-02	654932.5	4194242.0	7.5	3.66	0.85	1.70	NO
L0010384	0	0.29499E-02	654931.6	4194243.6	7.5	3.66	0.85	1.70	NO
L0010385	0	0.29499E-02	654930.6	4194245.2	7.5	3.66	0.85	1.70	NO
L0010386	0	0.29499E-02	654929.7	4194246.7	7.5	3.66	0.85	1.70	NO
L0010387	0	0.29499E-02	654928.7	4194248.3	7.5	3.66	0.85	1.70	NO
L0010388	0	0.29499E-02	654927.8	4194249.9	7.5	3.66	0.85	1.70	NO
L0010389	0	0.29499E-02	654926.8	4194251.4	7.5	3.66	0.85	1.70	NO
L0010390	0	0.29499E-02	654925.9	4194253.0	7.5	3.66	0.85	1.70	NO
L0010391	0	0.29499E-02	654924.9	4194254.5	7.5	3.66	0.85	1.70	NO
L0010392	0	0.29499E-02	654924.0	4194256.1	7.5	3.66	0.85	1.70	NO
L0010393	0	0.29499E-02	654923.1	4194257.7	7.5	3.66	0.85	1.70	NO
L0010394	0	0.29499E-02	654922.1	4194259.2	7.5	3.66	0.85	1.70	NO
L0010395	0	0.29499E-02	654921.2	4194260.8	7.5	3.66	0.85	1.70	NO
L0010396	0	0.29499E-02	654920.2	4194262.4	7.5	3.66	0.85	1.70	NO
L0010397	0	0.29499E-02	654919.3	4194263.9	7.5	3.66	0.85	1.70	NO

L0010398	0	0.29499E-02	654918.3	4194265.5	7.5	3.66	0.85	1.70	NO
L0010399	0	0.29499E-02	654917.4	4194267.1	7.5	3.66	0.85	1.70	NO
L0010400	0	0.29499E-02	654916.4	4194268.6	7.5	3.66	0.85	1.70	NO
L0010401	0	0.29499E-02	654915.5	4194270.2	7.5	3.66	0.85	1.70	NO
L0010402	0	0.29499E-02	654914.5	4194271.8	7.5	3.66	0.85	1.70	NO
L0010403	0	0.29499E-02	654913.6	4194273.3	7.5	3.66	0.85	1.70	NO
L0010404	0	0.29499E-02	654912.6	4194274.9	7.5	3.66	0.85	1.70	NO
L0010405	0	0.29499E-02	654911.7	4194276.4	7.5	3.66	0.85	1.70	NO
L0010406	0	0.29499E-02	654910.7	4194278.0	7.5	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY

L0010407	0	0.29499E-02	654909.8	4194279.6	7.5	3.66	0.85	1.70	NO	
L0010408	0	0.29499E-02	654908.8	4194281.1	7.5	3.66	0.85	1.70	NO	
L0010409	0	0.29499E-02	654907.9	4194282.7	7.5	3.66	0.85	1.70	NO	
L0010410	0	0.29499E-02	654907.0	4194284.3	7.5	3.66	0.85	1.70	NO	
L0010411	0	0.29499E-02	654906.0	4194285.8	7.5	3.66	0.85	1.70	NO	
L0010412	0	0.29499E-02	654905.1	4194287.4	7.5	3.66	0.85	1.70	NO	
L0010413	0	0.29499E-02	654904.1	4194289.0	7.5	3.66	0.85	1.70	NO	
L0010414	0	0.29499E-02	654903.2	4194290.5	7.5	3.66	0.85	1.70	NO	
L0010415	0	0.29499E-02	654902.2	4194292.1	7.5	3.66	0.85	1.70	NO	
L0010416	0	0.29499E-02	654901.3	4194293.7	7.5	3.66	0.85	1.70	NO	
L0010417	0	0.29499E-02	654900.3	4194295.2	7.5	3.66	0.85	1.70	NO	
L0010418	0	0.29499E-02	654899.4	4194296.8	7.6	3.66	0.85	1.70	NO	
L0010419	0	0.29499E-02	654898.4	4194298.3	7.6	3.66	0.85	1.70	NO	
L0010420	0	0.29499E-02	654897.5	4194299.9	7.6	3.66	0.85	1.70	NO	
L0010421	0	0.29499E-02	654896.5	4194301.5	7.6	3.66	0.85	1.70	NO	
L0010422	0	0.29499E-02	654895.6	4194303.0	7.6	3.66	0.85	1.70	NO	
L0010423	0	0.29499E-02	654894.6	4194304.6	7.6	3.66	0.85	1.70	NO	
L0010424	0	0.29499E-02	654893.7	4194306.2	7.6	3.66	0.85	1.70	NO	
L0010425	0	0.29499E-02	654892.7	4194307.7	7.6	3.66	0.85	1.70	NO	
L0010426	0	0.29499E-02	654891.8	4194309.3	7.6	3.66	0.85	1.70	NO	
L0010427	0	0.29499E-02	654890.8	4194310.9	7.6	3.66	0.85	1.70	NO	
L0010428	0	0.29499E-02	654889.9	4194312.4	7.6	3.66	0.85	1.70	NO	
L0010429	0	0.29499E-02	654889.0	4194314.0	7.6	3.66	0.85	1.70	NO	
L0010430	0	0.29499E-02	654888.0	4194315.6	7.6	3.66	0.85	1.70	NO	
L0010431	0	0.29499E-02	654887.1	4194317.1	7.6	3.66	0.85	1.70	NO	
L0010432	0	0.29499E-02	654886.1	4194318.7	7.6	3.66	0.85	1.70	NO	
L0010433	0	0.29499E-02	654885.2	4194320.3	7.6	3.66	0.85	1.70	NO	
L0010434	0	0.29499E-02	654884.2	4194321.8	7.6	3.66	0.85	1.70	NO	
L0010435	0	0.29499E-02	654883.3	4194323.4	7.6	3.66	0.85	1.70	NO	
L0010436	0	0.29499E-02	654882.3	4194324.9	7.6	3.66	0.85	1.70	NO	
L0010437	0	0.29499E-02	654881.4	4194326.5	7.6	3.66	0.85	1.70	NO	
L0010438	0	0.29499E-02	654880.4	4194328.1	7.6	3.66	0.85	1.70	NO	

L0010439	0	0.29499E-02	654879.5	4194329.6	7.6	3.66	0.85	1.70	NO
L0010440	0	0.29499E-02	654878.5	4194331.2	7.6	3.66	0.85	1.70	NO
L0010441	0	0.29499E-02	654877.6	4194332.8	7.6	3.66	0.85	1.70	NO
L0010442	0	0.29499E-02	654876.6	4194334.3	7.6	3.66	0.85	1.70	NO
L0010443	0	0.29499E-02	654875.7	4194335.9	7.6	3.66	0.85	1.70	NO
L0010444	0	0.29499E-02	654874.7	4194337.5	7.6	3.66	0.85	1.70	NO
L0010445	0	0.29499E-02	654873.8	4194339.0	7.6	3.66	0.85	1.70	NO
L0010446	0	0.29499E-02	654872.9	4194340.6	7.6	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER		EMISSION RATE		BASE		RELEASE		INIT.		INIT.		URBAN		EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY				
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY				

L0010447	0	0.29499E-02	654871.9	4194342.2	7.6	3.66	0.85	1.70	NO						
L0010448	0	0.29499E-02	654871.0	4194343.7	7.6	3.66	0.85	1.70	NO						
L0010449	0	0.29499E-02	654870.0	4194345.3	7.6	3.66	0.85	1.70	NO						
L0010450	0	0.29499E-02	654869.1	4194346.8	7.6	3.66	0.85	1.70	NO						
L0010451	0	0.29499E-02	654868.1	4194348.4	7.6	3.66	0.85	1.70	NO						
L0010452	0	0.29499E-02	654867.2	4194350.0	7.6	3.66	0.85	1.70	NO						
L0010453	0	0.29499E-02	654866.2	4194351.5	7.6	3.66	0.85	1.70	NO						
L0010454	0	0.29499E-02	654865.3	4194353.1	7.6	3.66	0.85	1.70	NO						
L0010455	0	0.29499E-02	654864.3	4194354.7	7.6	3.66	0.85	1.70	NO						
L0010456	0	0.29499E-02	654863.4	4194356.2	7.6	3.66	0.85	1.70	NO						
L0010457	0	0.29499E-02	654862.4	4194357.8	7.6	3.66	0.85	1.70	NO						
L0010458	0	0.29499E-02	654861.5	4194359.4	7.6	3.66	0.85	1.70	NO						
L0010459	0	0.29499E-02	654860.5	4194360.9	7.6	3.66	0.85	1.70	NO						
L0010460	0	0.29499E-02	654859.6	4194362.5	7.6	3.66	0.85	1.70	NO						
L0010461	0	0.29499E-02	654858.6	4194364.1	7.6	3.66	0.85	1.70	NO						
L0010462	0	0.29499E-02	654857.7	4194365.6	7.6	3.66	0.85	1.70	NO						
L0010463	0	0.29499E-02	654856.8	4194367.2	7.6	3.66	0.85	1.70	NO						
L0010464	0	0.29499E-02	654855.8	4194368.7	7.6	3.66	0.85	1.70	NO						
L0010465	0	0.29499E-02	654854.9	4194370.3	7.6	3.66	0.85	1.70	NO						
L0010466	0	0.29499E-02	654853.9	4194371.9	7.6	3.66	0.85	1.70	NO						
L0010467	0	0.29499E-02	654853.0	4194373.4	7.6	3.66	0.85	1.70	NO						
L0010468	0	0.29499E-02	654852.0	4194375.0	7.6	3.66	0.85	1.70	NO						
L0010469	0	0.29499E-02	654851.1	4194376.6	7.6	3.66	0.85	1.70	NO						
L0010470	0	0.29499E-02	654850.1	4194378.1	7.6	3.66	0.85	1.70	NO						
L0010471	0	0.29499E-02	654849.2	4194379.7	7.6	3.66	0.85	1.70	NO						
L0010472	0	0.29499E-02	654848.2	4194381.3	7.6	3.66	0.85	1.70	NO						
L0010473	0	0.29499E-02	654847.3	4194382.8	7.6	3.66	0.85	1.70	NO						
L0010474	0	0.29499E-02	654846.3	4194384.4	7.6	3.66	0.85	1.70	NO						
L0010475	0	0.29499E-02	654845.4	4194386.0	7.6	3.66	0.85	1.70	NO						
L0010476	0	0.29499E-02	654844.4	4194387.5	7.6	3.66	0.85	1.70	NO						
L0010477	0	0.29499E-02	654843.5	4194389.1	7.6	3.66	0.85	1.70	NO						
L0010478	0	0.29499E-02	654842.5	4194390.6	7.6	3.66	0.85	1.70	NO						
L0010479	0	0.29499E-02	654841.6	4194392.2	7.6	3.66	0.85	1.70	NO						

L0010480	0	0.29499E-02	654840.6	4194393.8	7.6	3.66	0.85	1.70	NO
L0010481	0	0.29499E-02	654839.7	4194395.3	7.7	3.66	0.85	1.70	NO
L0010482	0	0.29499E-02	654838.8	4194396.9	7.7	3.66	0.85	1.70	NO
L0010483	0	0.29499E-02	654837.8	4194398.5	7.7	3.66	0.85	1.70	NO
L0010484	0	0.29499E-02	654836.9	4194400.0	7.7	3.66	0.85	1.70	NO
L0010485	0	0.29499E-02	654835.9	4194401.6	7.7	3.66	0.85	1.70	NO
L0010486	0	0.29499E-02	654835.0	4194403.2	7.7	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE					BASE RELEASE INIT. INIT. URBAN EMISSION RATE				
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0010487	0	0.29499E-02	654834.0	4194404.7	7.7	3.66	0.85	1.70	NO
L0010488	0	0.29499E-02	654833.1	4194406.3	7.7	3.66	0.85	1.70	NO
L0010489	0	0.29499E-02	654832.1	4194407.9	7.7	3.66	0.85	1.70	NO
L0010490	0	0.29499E-02	654831.2	4194409.4	7.7	3.66	0.85	1.70	NO
L0010491	0	0.29499E-02	654830.2	4194411.0	7.7	3.66	0.85	1.70	NO
L0010492	0	0.29499E-02	654829.3	4194412.5	7.7	3.66	0.85	1.70	NO
L0010493	0	0.29499E-02	654828.3	4194414.1	7.7	3.66	0.85	1.70	NO
L0010494	0	0.29499E-02	654827.4	4194415.7	7.7	3.66	0.85	1.70	NO
L0010495	0	0.29499E-02	654826.4	4194417.2	7.7	3.66	0.85	1.70	NO
L0010496	0	0.29499E-02	654825.5	4194418.8	7.7	3.66	0.85	1.70	NO
L0010497	0	0.29499E-02	654824.5	4194420.4	7.7	3.66	0.85	1.70	NO
L0010498	0	0.29499E-02	654823.6	4194421.9	7.7	3.66	0.85	1.70	NO
L0010499	0	0.29499E-02	654822.7	4194423.5	7.7	3.66	0.85	1.70	NO
L0010500	0	0.29499E-02	654821.7	4194425.1	7.7	3.66	0.85	1.70	NO
L0010501	0	0.29499E-02	654820.8	4194426.6	7.7	3.66	0.85	1.70	NO
L0010502	0	0.29499E-02	654819.8	4194428.2	7.7	3.66	0.85	1.70	NO
L0010503	0	0.29499E-02	654818.9	4194429.8	7.7	3.66	0.85	1.70	NO
L0010504	0	0.29499E-02	654817.9	4194431.3	7.7	3.66	0.85	1.70	NO
L0010505	0	0.29499E-02	654817.0	4194432.9	7.7	3.66	0.85	1.70	NO
L0010506	0	0.29499E-02	654816.0	4194434.5	7.7	3.66	0.85	1.70	NO
L0010507	0	0.29499E-02	654815.1	4194436.0	7.7	3.66	0.85	1.70	NO
L0010508	0	0.29499E-02	654814.1	4194437.6	7.7	3.66	0.85	1.70	NO
L0010509	0	0.29499E-02	654813.2	4194439.1	7.7	3.66	0.85	1.70	NO
L0010510	0	0.29499E-02	654812.2	4194440.7	7.7	3.66	0.85	1.70	NO
L0010511	0	0.29499E-02	654811.3	4194442.3	7.7	3.66	0.85	1.70	NO
L0010512	0	0.29499E-02	654810.3	4194443.8	7.7	3.66	0.85	1.70	NO
L0010513	0	0.29499E-02	654809.4	4194445.4	7.7	3.66	0.85	1.70	NO
L0010514	0	0.29499E-02	654808.4	4194447.0	7.7	3.66	0.85	1.70	NO
L0010515	0	0.29499E-02	654807.5	4194448.5	7.7	3.66	0.85	1.70	NO
L0010516	0	0.29499E-02	654806.5	4194450.1	7.7	3.66	0.85	1.70	NO
L0010517	0	0.29499E-02	654805.6	4194451.7	7.7	3.66	0.85	1.70	NO
L0010518	0	0.29499E-02	654804.7	4194453.2	7.7	3.66	0.85	1.70	NO
L0010519	0	0.29499E-02	654803.7	4194454.8	7.7	3.66	0.85	1.70	NO
L0010520	0	0.29499E-02	654802.8	4194456.4	7.7	3.66	0.85	1.70	NO

L0010521	0	0.29499E-02	654801.8	4194457.9	7.7	3.66	0.85	1.70	NO
L0010522	0	0.29499E-02	654800.9	4194459.5	7.7	3.66	0.85	1.70	NO
L0010523	0	0.29499E-02	654799.9	4194461.0	7.7	3.66	0.85	1.70	NO
L0010524	0	0.29499E-02	654799.0	4194462.6	7.7	3.66	0.85	1.70	NO
L0010525	0	0.29499E-02	654798.0	4194464.2	7.7	3.66	0.85	1.70	NO
L0010526	0	0.29499E-02	654797.1	4194465.7	7.7	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY

L0010527	0	0.29499E-02	654796.1	4194467.3	7.7	3.66	0.85	1.70	NO		
L0010528	0	0.29499E-02	654795.2	4194468.9	7.7	3.66	0.85	1.70	NO		
L0010529	0	0.29499E-02	654794.2	4194470.4	7.7	3.66	0.85	1.70	NO		
L0010530	0	0.29499E-02	654793.3	4194472.0	7.7	3.66	0.85	1.70	NO		
L0010531	0	0.29499E-02	654792.3	4194473.6	7.7	3.66	0.85	1.70	NO		
L0010532	0	0.29499E-02	654791.4	4194475.1	7.7	3.66	0.85	1.70	NO		
L0010533	0	0.29499E-02	654790.4	4194476.7	7.7	3.66	0.85	1.70	NO		
L0010534	0	0.29499E-02	654789.5	4194478.3	7.7	3.66	0.85	1.70	NO		
L0010535	0	0.29499E-02	654788.6	4194479.8	7.7	3.66	0.85	1.70	NO		
L0010536	0	0.29499E-02	654787.6	4194481.4	7.7	3.66	0.85	1.70	NO		
L0010537	0	0.29499E-02	654786.7	4194482.9	7.7	3.66	0.85	1.70	NO		
L0010538	0	0.29499E-02	654785.7	4194484.5	7.7	3.66	0.85	1.70	NO		
L0010539	0	0.29499E-02	654784.8	4194486.1	7.7	3.66	0.85	1.70	NO		
L0010540	0	0.29499E-02	654783.8	4194487.6	7.7	3.66	0.85	1.70	NO		
L0010541	0	0.29499E-02	654782.9	4194489.2	7.7	3.66	0.85	1.70	NO		
L0010542	0	0.29499E-02	654781.9	4194490.8	7.7	3.66	0.85	1.70	NO		
L0010543	0	0.29499E-02	654781.0	4194492.3	7.7	3.66	0.85	1.70	NO		
L0010544	0	0.29499E-02	654780.0	4194493.9	7.7	3.66	0.85	1.70	NO		
L0010545	0	0.29499E-02	654779.1	4194495.5	7.7	3.66	0.85	1.70	NO		
L0010546	0	0.29499E-02	654778.1	4194497.0	7.7	3.66	0.85	1.70	NO		
L0010547	0	0.29499E-02	654777.2	4194498.6	7.7	3.66	0.85	1.70	NO		
L0010548	0	0.29499E-02	654776.2	4194500.2	7.7	3.66	0.85	1.70	NO		
L0010549	0	0.29499E-02	654775.3	4194501.7	7.7	3.66	0.85	1.70	NO		
L0010550	0	0.29499E-02	654774.3	4194503.3	7.7	3.66	0.85	1.70	NO		
L0010551	0	0.29499E-02	654773.4	4194504.8	7.7	3.66	0.85	1.70	NO		
L0010552	0	0.25381E-02	655418.4	4193986.4	8.0	3.66	0.85	1.70	NO		
L0010553	0	0.25381E-02	655417.5	4193988.0	8.0	3.66	0.85	1.70	NO		
L0010554	0	0.25381E-02	655416.5	4193989.6	7.9	3.66	0.85	1.70	NO		
L0010555	0	0.25381E-02	655415.6	4193991.2	7.9	3.66	0.85	1.70	NO		
L0010556	0	0.25381E-02	655414.7	4193992.8	7.9	3.66	0.85	1.70	NO		
L0010557	0	0.25381E-02	655413.8	4193994.3	7.9	3.66	0.85	1.70	NO		
L0010558	0	0.25381E-02	655412.9	4193995.9	7.9	3.66	0.85	1.70	NO		
L0010559	0	0.25381E-02	655411.9	4193997.5	7.9	3.66	0.85	1.70	NO		
L0010560	0	0.25381E-02	655411.0	4193999.1	7.9	3.66	0.85	1.70	NO		
L0010561	0	0.25381E-02	655410.1	4194000.7	7.9	3.66	0.85	1.70	NO		

L0010562	0	0.25381E-02	655409.2	4194002.2	7.9	3.66	0.85	1.70	NO
L0010563	0	0.25381E-02	655408.3	4194003.8	7.9	3.66	0.85	1.70	NO
L0010564	0	0.25381E-02	655407.3	4194005.4	7.9	3.66	0.85	1.70	NO
L0010565	0	0.25381E-02	655406.4	4194007.0	7.9	3.66	0.85	1.70	NO
L0010566	0	0.25381E-02	655405.5	4194008.6	7.9	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.	INIT.	URBAN EMISSION RATE		
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0010567	0	0.25381E-02	655404.6	4194010.2	8.0	3.66	0.85	1.70	NO
L0010568	0	0.25381E-02	655403.7	4194011.7	8.0	3.66	0.85	1.70	NO
L0010569	0	0.25381E-02	655402.8	4194013.3	8.0	3.66	0.85	1.70	NO
L0010570	0	0.25381E-02	655401.8	4194014.9	8.0	3.66	0.85	1.70	NO
L0010571	0	0.25381E-02	655400.9	4194016.5	8.0	3.66	0.85	1.70	NO
L0010572	0	0.25381E-02	655400.0	4194018.1	8.0	3.66	0.85	1.70	NO
L0010573	0	0.25381E-02	655399.1	4194019.6	8.0	3.66	0.85	1.70	NO
L0010574	0	0.25381E-02	655398.2	4194021.2	8.0	3.66	0.85	1.70	NO
L0010575	0	0.25381E-02	655397.2	4194022.8	8.0	3.66	0.85	1.70	NO
L0010576	0	0.25381E-02	655396.3	4194024.4	8.0	3.66	0.85	1.70	NO
L0010577	0	0.25381E-02	655395.4	4194026.0	8.0	3.66	0.85	1.70	NO
L0010578	0	0.25381E-02	655394.5	4194027.5	8.0	3.66	0.85	1.70	NO
L0010579	0	0.25381E-02	655393.6	4194029.1	8.0	3.66	0.85	1.70	NO
L0010580	0	0.25381E-02	655392.6	4194030.7	8.0	3.66	0.85	1.70	NO
L0010581	0	0.25381E-02	655391.7	4194032.3	8.0	3.66	0.85	1.70	NO
L0010582	0	0.25381E-02	655390.8	4194033.9	8.0	3.66	0.85	1.70	NO
L0010583	0	0.25381E-02	655389.9	4194035.4	8.0	3.66	0.85	1.70	NO
L0010584	0	0.25381E-02	655389.0	4194037.0	8.0	3.66	0.85	1.70	NO
L0010585	0	0.25381E-02	655388.0	4194038.6	8.0	3.66	0.85	1.70	NO
L0010586	0	0.25381E-02	655387.1	4194040.2	8.0	3.66	0.85	1.70	NO
L0010587	0	0.25381E-02	655386.2	4194041.8	8.0	3.66	0.85	1.70	NO
L0010588	0	0.25381E-02	655385.3	4194043.4	8.0	3.66	0.85	1.70	NO
L0010589	0	0.25381E-02	655384.4	4194044.9	7.9	3.66	0.85	1.70	NO
L0010590	0	0.25381E-02	655383.4	4194046.5	7.9	3.66	0.85	1.70	NO
L0010591	0	0.25381E-02	655382.5	4194048.1	7.9	3.66	0.85	1.70	NO
L0010592	0	0.25381E-02	655381.6	4194049.7	7.9	3.66	0.85	1.70	NO
L0010593	0	0.25381E-02	655380.7	4194051.3	7.9	3.66	0.85	1.70	NO
L0010594	0	0.25381E-02	655379.8	4194052.8	7.9	3.66	0.85	1.70	NO
L0010595	0	0.25381E-02	655378.9	4194054.4	7.9	3.66	0.85	1.70	NO
L0010596	0	0.25381E-02	655377.9	4194056.0	7.9	3.66	0.85	1.70	NO
L0010597	0	0.25381E-02	655377.0	4194057.6	7.9	3.66	0.85	1.70	NO
L0010598	0	0.25381E-02	655376.1	4194059.2	7.9	3.66	0.85	1.70	NO
L0010599	0	0.25381E-02	655375.2	4194060.7	7.9	3.66	0.85	1.70	NO
L0010600	0	0.25381E-02	655374.3	4194062.3	7.9	3.66	0.85	1.70	NO
L0010601	0	0.25381E-02	655373.3	4194063.9	7.9	3.66	0.85	1.70	NO
L0010602	0	0.25381E-02	655372.4	4194065.5	7.9	3.66	0.85	1.70	NO

L0010603	0	0.25381E-02	655371.5	4194067.1	8.0	3.66	0.85	1.70	NO
L0010604	0	0.25381E-02	655370.6	4194068.6	8.0	3.66	0.85	1.70	NO
L0010605	0	0.25381E-02	655369.7	4194070.2	8.0	3.66	0.85	1.70	NO
L0010606	0	0.25381E-02	655368.7	4194071.8	8.0	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER		EMISSION RATE		BASE		RELEASE		INIT.	INIT.	URBAN		EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY		
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY			

L0010607	0	0.25381E-02	655367.8	4194073.4	8.0	3.66	0.85	1.70	NO				
L0010608	0	0.25381E-02	655366.9	4194075.0	8.0	3.66	0.85	1.70	NO				
L0010609	0	0.25381E-02	655366.0	4194076.6	8.0	3.66	0.85	1.70	NO				
L0010610	0	0.25381E-02	655365.1	4194078.1	8.0	3.66	0.85	1.70	NO				
L0010611	0	0.25381E-02	655364.1	4194079.7	8.0	3.66	0.85	1.70	NO				
L0010612	0	0.25381E-02	655363.2	4194081.3	8.0	3.66	0.85	1.70	NO				
L0010613	0	0.25381E-02	655362.3	4194082.9	8.0	3.66	0.85	1.70	NO				
L0010614	0	0.25381E-02	655361.4	4194084.5	8.0	3.66	0.85	1.70	NO				
L0010615	0	0.25381E-02	655360.5	4194086.0	8.0	3.66	0.85	1.70	NO				
L0010616	0	0.25381E-02	655359.6	4194087.6	8.0	3.66	0.85	1.70	NO				
L0010617	0	0.25381E-02	655358.6	4194089.2	8.0	3.66	0.85	1.70	NO				
L0010618	0	0.25381E-02	655357.7	4194090.8	8.0	3.66	0.85	1.70	NO				
L0010619	0	0.25381E-02	655356.8	4194092.4	8.0	3.66	0.85	1.70	NO				
L0010620	0	0.25381E-02	655355.9	4194093.9	8.0	3.66	0.85	1.70	NO				
L0010621	0	0.25381E-02	655355.0	4194095.5	8.0	3.66	0.85	1.70	NO				
L0010622	0	0.25381E-02	655354.0	4194097.1	8.0	3.66	0.85	1.70	NO				
L0010623	0	0.25381E-02	655353.1	4194098.7	8.0	3.66	0.85	1.70	NO				
L0010624	0	0.25381E-02	655352.2	4194100.3	8.0	3.66	0.85	1.70	NO				
L0010625	0	0.25381E-02	655351.3	4194101.8	8.0	3.66	0.85	1.70	NO				
L0010626	0	0.25381E-02	655350.4	4194103.4	8.0	3.66	0.85	1.70	NO				
L0010627	0	0.25381E-02	655349.4	4194105.0	8.0	3.66	0.85	1.70	NO				
L0010628	0	0.25381E-02	655348.5	4194106.6	8.0	3.66	0.85	1.70	NO				
L0010629	0	0.25381E-02	655347.6	4194108.2	8.0	3.66	0.85	1.70	NO				
L0010630	0	0.25381E-02	655346.7	4194109.8	8.0	3.66	0.85	1.70	NO				
L0010631	0	0.25381E-02	655345.8	4194111.3	8.0	3.66	0.85	1.70	NO				
L0010632	0	0.25381E-02	655344.8	4194112.9	8.0	3.66	0.85	1.70	NO				
L0010633	0	0.25381E-02	655343.9	4194114.5	8.0	3.66	0.85	1.70	NO				
L0010634	0	0.25381E-02	655343.0	4194116.1	8.0	3.66	0.85	1.70	NO				
L0010635	0	0.25381E-02	655342.1	4194117.7	8.0	3.66	0.85	1.70	NO				
L0010636	0	0.25381E-02	655341.2	4194119.2	8.0	3.66	0.85	1.70	NO				
L0010637	0	0.25381E-02	655340.2	4194120.8	8.0	3.66	0.85	1.70	NO				
L0010638	0	0.25381E-02	655339.3	4194122.4	8.0	3.66	0.85	1.70	NO				
L0010639	0	0.25381E-02	655338.4	4194124.0	8.0	3.66	0.85	1.70	NO				
L0010640	0	0.25381E-02	655337.5	4194125.6	8.0	3.66	0.85	1.70	NO				
L0010641	0	0.25381E-02	655336.6	4194127.1	8.0	3.66	0.85	1.70	NO				
L0010642	0	0.25381E-02	655335.7	4194128.7	8.0	3.66	0.85	1.70	NO				
L0010643	0	0.25381E-02	655334.7	4194130.3	8.0	3.66	0.85	1.70	NO				

L0010644 0 0.25381E-02 655333.8 4194131.9 8.0 3.66 0.85 1.70 NO
L0010645 0 0.25381E-02 655332.9 4194133.5 8.0 3.66 0.85 1.70 NO
L0010646 0 0.25381E-02 655332.0 4194135.1 8.0 3.66 0.85 1.70 NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE SCALAR VARY BY

L0010647	0	0.25381E-02 655331.1	4194136.6		8.0	3.66	0.85	1.70	NO
L0010648	0	0.25381E-02 655330.1	4194138.2		8.0	3.66	0.85	1.70	NO
L0010649	0	0.25381E-02 655329.2	4194139.8		8.0	3.66	0.85	1.70	NO
L0010650	0	0.25381E-02 655328.3	4194141.4		8.0	3.66	0.85	1.70	NO
L0010651	0	0.25381E-02 655327.4	4194143.0		8.0	3.66	0.85	1.70	NO
L0010652	0	0.25381E-02 655326.5	4194144.5		8.0	3.66	0.85	1.70	NO
L0010653	0	0.25381E-02 655325.5	4194146.1		8.0	3.66	0.85	1.70	NO
L0010654	0	0.25381E-02 655324.6	4194147.7		8.0	3.66	0.85	1.70	NO
L0010655	0	0.25381E-02 655323.7	4194149.3		8.0	3.66	0.85	1.70	NO
L0010656	0	0.25381E-02 655322.8	4194150.9		8.0	3.66	0.85	1.70	NO
L0010657	0	0.25381E-02 655321.9	4194152.4		8.0	3.66	0.85	1.70	NO
L0010658	0	0.25381E-02 655320.9	4194154.0		8.0	3.66	0.85	1.70	NO
L0010659	0	0.25381E-02 655320.0	4194155.6		8.0	3.66	0.85	1.70	NO
L0010660	0	0.25381E-02 655319.1	4194157.2		8.0	3.66	0.85	1.70	NO
L0010661	0	0.25381E-02 655318.2	4194158.8		8.0	3.66	0.85	1.70	NO
L0010662	0	0.25381E-02 655317.3	4194160.3		8.0	3.66	0.85	1.70	NO
L0010663	0	0.25381E-02 655316.3	4194161.9		8.0	3.66	0.85	1.70	NO
L0010664	0	0.25381E-02 655315.4	4194163.5		8.0	3.66	0.85	1.70	NO
L0010665	0	0.25381E-02 655314.5	4194165.1		8.0	3.66	0.85	1.70	NO
L0010666	0	0.25381E-02 655313.6	4194166.7		8.0	3.66	0.85	1.70	NO
L0010667	0	0.25381E-02 655312.7	4194168.3		8.0	3.66	0.85	1.70	NO
L0010668	0	0.25381E-02 655311.8	4194169.8		8.0	3.66	0.85	1.70	NO
L0010669	0	0.25381E-02 655310.8	4194171.4		8.0	3.66	0.85	1.70	NO
L0010670	0	0.25381E-02 655309.9	4194173.0		8.0	3.66	0.85	1.70	NO
L0010671	0	0.25381E-02 655309.0	4194174.6		8.0	3.66	0.85	1.70	NO
L0010672	0	0.25381E-02 655308.1	4194176.2		8.0	3.66	0.85	1.70	NO
L0010673	0	0.25381E-02 655307.2	4194177.7		8.0	3.66	0.85	1.70	NO
L0010674	0	0.25381E-02 655306.2	4194179.3		8.0	3.66	0.85	1.70	NO
L0010675	0	0.25381E-02 655305.3	4194180.9		8.0	3.66	0.85	1.70	NO
L0010676	0	0.25381E-02 655304.4	4194182.5		8.0	3.66	0.85	1.70	NO
L0010677	0	0.25381E-02 655303.5	4194184.1		8.0	3.66	0.85	1.70	NO
L0010678	0	0.25381E-02 655302.6	4194185.6		8.0	3.66	0.85	1.70	NO
L0010679	0	0.25381E-02 655301.6	4194187.2		8.0	3.66	0.85	1.70	NO
L0010680	0	0.25381E-02 655300.7	4194188.8		8.0	3.66	0.85	1.70	NO
L0010681	0	0.25381E-02 655299.8	4194190.4		8.0	3.66	0.85	1.70	NO
L0010682	0	0.25381E-02 655298.9	4194192.0		8.0	3.66	0.85	1.70	NO
L0010683	0	0.25381E-02 655298.0	4194193.5		8.0	3.66	0.85	1.70	NO
L0010684	0	0.25381E-02 655297.0	4194195.1		8.0	3.66	0.85	1.70	NO

L0010685 0 0.25381E-02 655296.1 4194196.7 8.0 3.66 0.85 1.70 NO
L0010686 0 0.25381E-02 655295.2 4194198.3 8.0 3.66 0.85 1.70 NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0010687	0	0.25381E-02	655294.3	4194199.9	8.0	3.66	0.85	1.70	NO	
L0010688	0	0.25381E-02	655293.4	4194201.5	8.0	3.66	0.85	1.70	NO	
L0010689	0	0.25381E-02	655292.4	4194203.0	8.0	3.66	0.85	1.70	NO	
L0010690	0	0.25381E-02	655291.5	4194204.6	8.0	3.66	0.85	1.70	NO	
L0010691	0	0.25381E-02	655290.6	4194206.2	8.0	3.66	0.85	1.70	NO	
L0010692	0	0.25381E-02	655289.7	4194207.8	8.0	3.66	0.85	1.70	NO	
L0010693	0	0.25381E-02	655288.8	4194209.4	8.0	3.66	0.85	1.70	NO	
L0010694	0	0.25381E-02	655287.9	4194210.9	8.0	3.66	0.85	1.70	NO	
L0010695	0	0.25381E-02	655286.9	4194212.5	8.0	3.66	0.85	1.70	NO	
L0010696	0	0.25381E-02	655286.0	4194214.1	8.0	3.66	0.85	1.70	NO	
L0010697	0	0.25381E-02	655285.1	4194215.7	8.0	3.66	0.85	1.70	NO	
L0010698	0	0.25381E-02	655284.2	4194217.3	8.0	3.66	0.85	1.70	NO	
L0010699	0	0.25381E-02	655283.3	4194218.8	8.0	3.66	0.85	1.70	NO	
L0010700	0	0.25381E-02	655282.3	4194220.4	8.0	3.66	0.85	1.70	NO	
L0010701	0	0.25381E-02	655281.4	4194222.0	8.0	3.66	0.85	1.70	NO	
L0010702	0	0.25381E-02	655280.5	4194223.6	8.0	3.66	0.85	1.70	NO	
L0010703	0	0.25381E-02	655279.6	4194225.2	8.0	3.66	0.85	1.70	NO	
L0010704	0	0.25381E-02	655278.7	4194226.8	8.0	3.66	0.85	1.70	NO	
L0010705	0	0.25381E-02	655277.7	4194228.3	8.0	3.66	0.85	1.70	NO	
L0010706	0	0.25381E-02	655276.8	4194229.9	8.0	3.66	0.85	1.70	NO	
L0010707	0	0.25381E-02	655275.9	4194231.5	8.0	3.66	0.85	1.70	NO	
L0010708	0	0.25381E-02	655275.0	4194233.1	8.0	3.66	0.85	1.70	NO	
L0010709	0	0.25381E-02	655274.1	4194234.7	8.0	3.66	0.85	1.70	NO	
L0010710	0	0.25381E-02	655273.1	4194236.2	8.0	3.66	0.85	1.70	NO	
L0010711	0	0.25381E-02	655272.2	4194237.8	8.0	3.66	0.85	1.70	NO	
L0010712	0	0.25381E-02	655271.3	4194239.4	8.0	3.66	0.85	1.70	NO	
L0010713	0	0.25381E-02	655270.4	4194241.0	8.0	3.66	0.85	1.70	NO	
L0010714	0	0.25381E-02	655269.5	4194242.6	8.0	3.66	0.85	1.70	NO	
L0010715	0	0.25381E-02	655268.6	4194244.1	8.0	3.66	0.85	1.70	NO	
L0010716	0	0.25381E-02	655267.6	4194245.7	8.0	3.66	0.85	1.70	NO	
L0010717	0	0.25381E-02	655266.7	4194247.3	8.0	3.66	0.85	1.70	NO	
L0010718	0	0.25381E-02	655265.8	4194248.9	8.0	3.66	0.85	1.70	NO	
L0010719	0	0.25381E-02	655264.9	4194250.5	8.0	3.66	0.85	1.70	NO	
L0010720	0	0.25381E-02	655264.0	4194252.0	8.0	3.66	0.85	1.70	NO	
L0010721	0	0.25381E-02	655263.0	4194253.6	8.0	3.66	0.85	1.70	NO	
L0010722	0	0.25381E-02	655262.1	4194255.2	8.0	3.66	0.85	1.70	NO	
L0010723	0	0.25381E-02	655261.2	4194256.8	8.0	3.66	0.85	1.70	NO	
L0010724	0	0.25381E-02	655260.3	4194258.4	8.0	3.66	0.85	1.70	NO	
L0010725	0	0.25381E-02	655259.4	4194260.0	8.0	3.66	0.85	1.70	NO	

L0010726 0 0.25381E-02 655258.4 4194261.5 8.0 3.66 0.85 1.70 NO
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE SCALAR VARY BY
L0010727	0	0.25381E-02 655257.5	4194263.1		8.0	3.66	0.85	1.70	NO
L0010728	0	0.25381E-02 655256.6	4194264.7		8.0	3.66	0.85	1.70	NO
L0010729	0	0.25381E-02 655255.7	4194266.3		8.0	3.66	0.85	1.70	NO
L0010730	0	0.25381E-02 655254.8	4194267.9		8.0	3.66	0.85	1.70	NO
L0010731	0	0.25381E-02 655253.8	4194269.4		8.0	3.66	0.85	1.70	NO
L0010732	0	0.25381E-02 655252.9	4194271.0		8.0	3.66	0.85	1.70	NO
L0010733	0	0.25381E-02 655252.0	4194272.6		7.9	3.66	0.85	1.70	NO
L0010734	0	0.25381E-02 655251.1	4194274.2		7.9	3.66	0.85	1.70	NO
L0010735	0	0.25381E-02 655250.2	4194275.8		7.9	3.66	0.85	1.70	NO
L0010736	0	0.25381E-02 655249.2	4194277.3		7.9	3.66	0.85	1.70	NO
L0010737	0	0.25381E-02 655248.3	4194278.9		7.9	3.66	0.85	1.70	NO
L0010738	0	0.25381E-02 655247.4	4194280.5		7.9	3.66	0.85	1.70	NO
L0010739	0	0.25381E-02 655246.5	4194282.1		7.9	3.66	0.85	1.70	NO
L0010740	0	0.25381E-02 655245.6	4194283.7		7.9	3.66	0.85	1.70	NO
L0010741	0	0.25381E-02 655244.7	4194285.2		7.9	3.66	0.85	1.70	NO
L0010742	0	0.25381E-02 655243.7	4194286.8		7.9	3.66	0.85	1.70	NO
L0010743	0	0.25381E-02 655242.8	4194288.4		7.9	3.66	0.85	1.70	NO
L0010744	0	0.25381E-02 655241.9	4194290.0		7.9	3.66	0.85	1.70	NO
L0010745	0	0.25381E-02 655241.0	4194291.6		7.9	3.66	0.85	1.70	NO
L0010746	0	0.25381E-02 655240.1	4194293.2		7.9	3.66	0.85	1.70	NO
L0010747	0	0.25381E-02 655239.1	4194294.7		7.9	3.66	0.85	1.70	NO
L0010748	0	0.25381E-02 655238.2	4194296.3		7.9	3.66	0.85	1.70	NO
L0010749	0	0.25381E-02 655237.3	4194297.9		7.9	3.66	0.85	1.70	NO
L0010750	0	0.25381E-02 655236.4	4194299.5		7.9	3.66	0.85	1.70	NO
L0010751	0	0.25381E-02 655235.5	4194301.1		7.9	3.66	0.85	1.70	NO
L0010752	0	0.25381E-02 655234.5	4194302.6		7.9	3.66	0.85	1.70	NO
L0010753	0	0.25381E-02 655233.6	4194304.2		7.9	3.66	0.85	1.70	NO
L0010754	0	0.25381E-02 655232.7	4194305.8		7.9	3.66	0.85	1.70	NO
L0010755	0	0.25381E-02 655231.8	4194307.4		7.9	3.66	0.85	1.70	NO
L0010756	0	0.25381E-02 655230.9	4194309.0		7.9	3.66	0.85	1.70	NO
L0010757	0	0.25381E-02 655229.9	4194310.5		7.9	3.66	0.85	1.70	NO
L0010758	0	0.25381E-02 655229.0	4194312.1		7.9	3.66	0.85	1.70	NO
L0010759	0	0.25381E-02 655228.1	4194313.7		7.9	3.66	0.85	1.70	NO
L0010760	0	0.25381E-02 655227.2	4194315.3		7.9	3.66	0.85	1.70	NO
L0010761	0	0.25381E-02 655226.3	4194316.9		7.9	3.66	0.85	1.70	NO
L0010762	0	0.25381E-02 655225.3	4194318.4		7.9	3.66	0.85	1.70	NO
L0010763	0	0.25381E-02 655224.4	4194320.0		7.9	3.66	0.85	1.70	NO
L0010764	0	0.25381E-02 655223.5	4194321.6		7.9	3.66	0.85	1.70	NO
L0010765	0	0.25381E-02 655222.6	4194323.2		7.9	3.66	0.85	1.70	NO
L0010766	0	0.25381E-02 655221.7	4194324.8		7.9	3.66	0.85	1.70	NO

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY

L0010767	0	0.25381E-02	655220.8	4194326.4	7.9	3.66	0.85	1.70	NO	
L0010768	0	0.25381E-02	655219.8	4194327.9	7.9	3.66	0.85	1.70	NO	
L0010769	0	0.25381E-02	655218.9	4194329.5	7.9	3.66	0.85	1.70	NO	
L0010770	0	0.25381E-02	655218.0	4194331.1	7.9	3.66	0.85	1.70	NO	
L0010771	0	0.25381E-02	655217.1	4194332.7	7.9	3.66	0.85	1.70	NO	
L0010772	0	0.25381E-02	655216.2	4194334.3	7.9	3.66	0.85	1.70	NO	
L0010773	0	0.25381E-02	655215.2	4194335.8	7.9	3.66	0.85	1.70	NO	
L0010774	0	0.25381E-02	655214.3	4194337.4	7.9	3.66	0.85	1.70	NO	
L0010775	0	0.25381E-02	655213.4	4194339.0	7.9	3.66	0.85	1.70	NO	
L0010776	0	0.25381E-02	655212.5	4194340.6	7.9	3.66	0.85	1.70	NO	
L0010777	0	0.25381E-02	655211.6	4194342.2	7.9	3.66	0.85	1.70	NO	
L0010778	0	0.25381E-02	655210.6	4194343.7	7.9	3.66	0.85	1.70	NO	
L0010779	0	0.25381E-02	655209.7	4194345.3	7.9	3.66	0.85	1.70	NO	
L0010780	0	0.25381E-02	655208.8	4194346.9	7.9	3.66	0.85	1.70	NO	
L0010781	0	0.25381E-02	655207.9	4194348.5	7.9	3.66	0.85	1.70	NO	
L0010782	0	0.25381E-02	655207.0	4194350.1	7.9	3.66	0.85	1.70	NO	
L0010783	0	0.25381E-02	655206.0	4194351.6	7.9	3.66	0.85	1.70	NO	
L0010784	0	0.25381E-02	655205.1	4194353.2	7.9	3.66	0.85	1.70	NO	
L0010785	0	0.25381E-02	655204.2	4194354.8	7.9	3.66	0.85	1.70	NO	
L0010786	0	0.25381E-02	655203.3	4194356.4	7.9	3.66	0.85	1.70	NO	
L0010787	0	0.25381E-02	655202.4	4194358.0	7.9	3.66	0.85	1.70	NO	
L0010788	0	0.25381E-02	655201.4	4194359.6	7.9	3.66	0.85	1.70	NO	
L0010789	0	0.25381E-02	655200.5	4194361.1	7.9	3.66	0.85	1.70	NO	
L0010790	0	0.25381E-02	655199.6	4194362.7	7.9	3.66	0.85	1.70	NO	
L0010791	0	0.25381E-02	655198.7	4194364.3	7.9	3.66	0.85	1.70	NO	
L0010792	0	0.25381E-02	655197.8	4194365.9	7.9	3.66	0.85	1.70	NO	
L0010793	0	0.25381E-02	655196.9	4194367.5	7.9	3.66	0.85	1.70	NO	
L0010794	0	0.25381E-02	655195.9	4194369.0	7.9	3.66	0.85	1.70	NO	
L0010795	0	0.25381E-02	655195.0	4194370.6	7.9	3.66	0.85	1.70	NO	
L0010796	0	0.25381E-02	655194.1	4194372.2	7.9	3.66	0.85	1.70	NO	
L0010797	0	0.25381E-02	655193.2	4194373.8	7.9	3.66	0.85	1.70	NO	
L0010798	0	0.25381E-02	655192.3	4194375.4	7.9	3.66	0.85	1.70	NO	
L0010799	0	0.25381E-02	655191.3	4194376.9	7.9	3.66	0.85	1.70	NO	
L0010800	0	0.25381E-02	655190.4	4194378.5	7.9	3.66	0.85	1.70	NO	
L0010801	0	0.25381E-02	655189.5	4194380.1	7.9	3.66	0.85	1.70	NO	
L0010802	0	0.25381E-02	655188.6	4194381.7	7.9	3.66	0.85	1.70	NO	
L0010803	0	0.25381E-02	655187.7	4194383.3	7.9	3.66	0.85	1.70	NO	
L0010804	0	0.25381E-02	655186.7	4194384.9	7.9	3.66	0.85	1.70	NO	
L0010805	0	0.25381E-02	655185.8	4194386.4	7.9	3.66	0.85	1.70	NO	
L0010806	0	0.25381E-02	655184.9	4194388.0	7.9	3.66	0.85	1.70	NO	

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE		RELEASE	INIT.	INIT.	URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0010807	0	0.25381E-02	655184.0	4194389.6	7.9	3.66	0.85	1.70	NO
L0010808	0	0.25381E-02	655183.1	4194391.2	7.9	3.66	0.85	1.70	NO
L0010809	0	0.25381E-02	655182.1	4194392.8	7.9	3.66	0.85	1.70	NO
L0010810	0	0.25381E-02	655181.2	4194394.3	7.9	3.66	0.85	1.70	NO
L0010811	0	0.25381E-02	655180.3	4194395.9	7.9	3.66	0.85	1.70	NO
L0010812	0	0.25381E-02	655179.4	4194397.5	7.9	3.66	0.85	1.70	NO
L0010813	0	0.25381E-02	655178.5	4194399.1	7.9	3.66	0.85	1.70	NO
L0010814	0	0.25381E-02	655177.6	4194400.7	7.9	3.66	0.85	1.70	NO
L0010815	0	0.25381E-02	655176.6	4194402.2	7.9	3.66	0.85	1.70	NO
L0010816	0	0.25381E-02	655175.7	4194403.8	7.9	3.66	0.85	1.70	NO
L0010817	0	0.25381E-02	655174.8	4194405.4	7.9	3.66	0.85	1.70	NO
L0010818	0	0.25381E-02	655173.9	4194407.0	7.9	3.66	0.85	1.70	NO
L0010819	0	0.25381E-02	655173.0	4194408.6	7.9	3.66	0.85	1.70	NO
L0010820	0	0.25381E-02	655172.0	4194410.1	7.9	3.66	0.85	1.70	NO
L0010821	0	0.25381E-02	655171.1	4194411.7	7.9	3.66	0.85	1.70	NO
L0010822	0	0.25381E-02	655170.2	4194413.3	7.9	3.66	0.85	1.70	NO
L0010823	0	0.25381E-02	655169.3	4194414.9	7.9	3.66	0.85	1.70	NO
L0010824	0	0.25381E-02	655168.4	4194416.5	7.9	3.66	0.85	1.70	NO
L0010825	0	0.25381E-02	655167.4	4194418.1	7.9	3.66	0.85	1.70	NO
L0010826	0	0.25381E-02	655166.5	4194419.6	7.9	3.66	0.85	1.70	NO
L0010827	0	0.25381E-02	655165.6	4194421.2	7.9	3.66	0.85	1.70	NO
L0010828	0	0.25381E-02	655164.7	4194422.8	7.9	3.66	0.85	1.70	NO
L0010829	0	0.25381E-02	655163.8	4194424.4	7.9	3.66	0.85	1.70	NO
L0010830	0	0.25381E-02	655162.8	4194426.0	7.9	3.66	0.85	1.70	NO
L0010831	0	0.25381E-02	655161.9	4194427.5	7.9	3.66	0.85	1.70	NO
L0010832	0	0.25381E-02	655161.0	4194429.1	7.9	3.66	0.85	1.70	NO
L0010833	0	0.25381E-02	655160.1	4194430.7	7.9	3.66	0.85	1.70	NO
L0010834	0	0.25381E-02	655159.2	4194432.3	7.9	3.66	0.85	1.70	NO
L0010835	0	0.25381E-02	655158.2	4194433.9	7.9	3.66	0.85	1.70	NO
L0010836	0	0.25381E-02	655157.3	4194435.4	7.9	3.66	0.85	1.70	NO
L0010837	0	0.25381E-02	655156.4	4194437.0	7.9	3.66	0.85	1.70	NO
L0010838	0	0.25381E-02	655155.5	4194438.6	7.9	3.66	0.85	1.70	NO
L0010839	0	0.25381E-02	655154.6	4194440.2	7.9	3.66	0.85	1.70	NO
L0010840	0	0.25381E-02	655153.7	4194441.8	7.9	3.66	0.85	1.70	NO
L0010841	0	0.25381E-02	655152.7	4194443.3	7.9	3.66	0.85	1.70	NO
L0010842	0	0.25381E-02	655151.8	4194444.9	7.9	3.66	0.85	1.70	NO
L0010843	0	0.25381E-02	655150.9	4194446.5	7.9	3.66	0.85	1.70	NO
L0010844	0	0.25381E-02	655150.0	4194448.1	7.9	3.66	0.85	1.70	NO
L0010845	0	0.25381E-02	655149.1	4194449.7	7.9	3.66	0.85	1.70	NO
L0010846	0	0.25381E-02	655148.1	4194451.3	7.9	3.66	0.85	1.70	NO

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE SCALAR VARY BY
L0010847	0	0.25381E-02	655147.2	4194452.8	7.9	3.66	0.85	1.70	NO
L0010848	0	0.25381E-02	655146.3	4194454.4	7.9	3.66	0.85	1.70	NO
L0010849	0	0.25381E-02	655145.4	4194456.0	7.9	3.66	0.85	1.70	NO
L0010850	0	0.25381E-02	655144.5	4194457.6	7.9	3.66	0.85	1.70	NO
L0010851	0	0.25381E-02	655143.5	4194459.2	7.9	3.66	0.85	1.70	NO
L0010852	0	0.25381E-02	655142.6	4194460.7	7.9	3.66	0.85	1.70	NO
L0010853	0	0.25381E-02	655141.7	4194462.3	7.9	3.66	0.85	1.70	NO
L0010854	0	0.25381E-02	655140.8	4194463.9	7.9	3.66	0.85	1.70	NO
L0010855	0	0.25381E-02	655139.9	4194465.5	7.9	3.66	0.85	1.70	NO
L0010856	0	0.25381E-02	655138.9	4194467.1	7.9	3.66	0.85	1.70	NO
L0010857	0	0.25381E-02	655138.0	4194468.6	7.9	3.66	0.85	1.70	NO
L0010858	0	0.25381E-02	655137.1	4194470.2	7.9	3.66	0.85	1.70	NO
L0010859	0	0.25381E-02	655136.2	4194471.8	7.9	3.66	0.85	1.70	NO
L0010860	0	0.25381E-02	655135.3	4194473.4	7.9	3.66	0.85	1.70	NO
L0010861	0	0.25381E-02	655134.3	4194475.0	7.9	3.66	0.85	1.70	NO
L0010862	0	0.25381E-02	655133.4	4194476.5	7.9	3.66	0.85	1.70	NO
L0010863	0	0.25381E-02	655132.5	4194478.1	7.9	3.66	0.85	1.70	NO
L0010864	0	0.25381E-02	655131.6	4194479.7	7.9	3.66	0.85	1.70	NO
L0010865	0	0.25381E-02	655130.7	4194481.3	7.9	3.66	0.85	1.70	NO
L0010866	0	0.25381E-02	655129.8	4194482.9	7.9	3.66	0.85	1.70	NO
L0010867	0	0.25381E-02	655128.8	4194484.5	7.9	3.66	0.85	1.70	NO
L0010868	0	0.25381E-02	655127.9	4194486.0	7.9	3.66	0.85	1.70	NO
L0010869	0	0.25381E-02	655127.0	4194487.6	7.9	3.66	0.85	1.70	NO
L0010870	0	0.25381E-02	655126.1	4194489.2	7.9	3.66	0.85	1.70	NO
L0010871	0	0.25381E-02	655125.2	4194490.8	7.9	3.66	0.85	1.70	NO
L0010872	0	0.25381E-02	655124.2	4194492.4	7.9	3.66	0.85	1.70	NO
L0010873	0	0.25381E-02	655123.3	4194493.9	7.9	3.66	0.85	1.70	NO
L0010874	0	0.25381E-02	655122.4	4194495.5	7.9	3.66	0.85	1.70	NO
L0010875	0	0.25381E-02	655121.5	4194497.1	7.9	3.66	0.85	1.70	NO
L0010876	0	0.25381E-02	655120.6	4194498.7	7.9	3.66	0.85	1.70	NO
L0010877	0	0.25381E-02	655119.6	4194500.3	7.9	3.66	0.85	1.70	NO
L0010878	0	0.25381E-02	655118.7	4194501.8	7.9	3.66	0.85	1.70	NO
L0010879	0	0.25381E-02	655117.8	4194503.4	7.9	3.66	0.85	1.70	NO
L0010880	0	0.25381E-02	655116.9	4194505.0	7.9	3.66	0.85	1.70	NO
L0010881	0	0.25381E-02	655116.0	4194506.6	7.9	3.66	0.85	1.70	NO
L0010882	0	0.25381E-02	655115.0	4194508.2	7.9	3.66	0.85	1.70	NO
L0010883	0	0.25381E-02	655114.1	4194509.8	7.9	3.66	0.85	1.70	NO
L0010884	0	0.25381E-02	655113.2	4194511.3	7.9	3.66	0.85	1.70	NO
L0010885	0	0.25381E-02	655112.3	4194512.9	7.9	3.66	0.85	1.70	NO
L0010886	0	0.25381E-02	655111.4	4194514.5	7.9	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE SCALAR VARY BY
L0010887	0	0.25381E-02	655110.4	4194516.1	7.9	3.66	0.85	1.70	NO
L0010888	0	0.25381E-02	655109.5	4194517.7	7.9	3.66	0.85	1.70	NO
L0010889	0	0.25381E-02	655108.6	4194519.2	7.9	3.66	0.85	1.70	NO
L0010890	0	0.25381E-02	655107.7	4194520.8	7.9	3.66	0.85	1.70	NO
L0010891	0	0.25381E-02	655106.8	4194522.4	7.9	3.66	0.85	1.70	NO
L0010892	0	0.25381E-02	655105.9	4194524.0	7.9	3.66	0.85	1.70	NO
L0010893	0	0.25381E-02	655104.9	4194525.6	7.9	3.66	0.85	1.70	NO
L0010894	0	0.25381E-02	655104.0	4194527.1	7.9	3.66	0.85	1.70	NO
L0010895	0	0.25381E-02	655103.1	4194528.7	7.9	3.66	0.85	1.70	NO
L0010896	0	0.25381E-02	655102.2	4194530.3	7.9	3.66	0.85	1.70	NO
L0010897	0	0.25381E-02	655101.3	4194531.9	7.9	3.66	0.85	1.70	NO
L0010898	0	0.25381E-02	655100.3	4194533.5	7.9	3.66	0.85	1.70	NO
L0010899	0	0.25381E-02	655099.4	4194535.0	7.9	3.66	0.85	1.70	NO
L0010900	0	0.25381E-02	655098.5	4194536.6	7.9	3.66	0.85	1.70	NO
L0010901	0	0.25381E-02	655097.6	4194538.2	7.9	3.66	0.85	1.70	NO
L0010902	0	0.25381E-02	655096.7	4194539.8	7.9	3.66	0.85	1.70	NO
L0010903	0	0.25381E-02	655095.7	4194541.4	7.9	3.66	0.85	1.70	NO
L0010904	0	0.25381E-02	655094.8	4194543.0	7.9	3.66	0.85	1.70	NO
L0010905	0	0.25381E-02	655093.9	4194544.5	7.9	3.66	0.85	1.70	NO
L0010906	0	0.25381E-02	655093.0	4194546.1	7.9	3.66	0.85	1.70	NO
L0010907	0	0.25381E-02	655092.1	4194547.7	7.9	3.66	0.85	1.70	NO
L0010908	0	0.25381E-02	655091.1	4194549.3	7.9	3.66	0.85	1.70	NO
L0010909	0	0.25381E-02	655090.2	4194550.9	7.9	3.66	0.85	1.70	NO
L0010910	0	0.25381E-02	655089.3	4194552.4	7.9	3.66	0.85	1.70	NO
L0010911	0	0.25381E-02	655088.4	4194554.0	7.9	3.66	0.85	1.70	NO
L0010912	0	0.25381E-02	655087.5	4194555.6	7.9	3.66	0.85	1.70	NO
L0010913	0	0.25381E-02	655086.6	4194557.2	7.9	3.66	0.85	1.70	NO
L0010914	0	0.25381E-02	655085.6	4194558.8	7.9	3.66	0.85	1.70	NO
L0010915	0	0.25381E-02	655084.7	4194560.3	7.9	3.66	0.85	1.70	NO
L0010916	0	0.25381E-02	655083.8	4194561.9	7.9	3.66	0.85	1.70	NO
L0010917	0	0.25381E-02	655082.9	4194563.5	7.9	3.66	0.85	1.70	NO
L0010918	0	0.25381E-02	655082.0	4194565.1	7.9	3.66	0.85	1.70	NO
L0010919	0	0.25381E-02	655081.0	4194566.7	7.9	3.66	0.85	1.70	NO
L0010920	0	0.25381E-02	655080.1	4194568.2	7.9	3.66	0.85	1.70	NO
L0010921	0	0.25381E-02	655079.2	4194569.8	7.9	3.66	0.85	1.70	NO
L0010922	0	0.25381E-02	655078.3	4194571.4	7.9	3.66	0.85	1.70	NO
L0010923	0	0.25381E-02	655077.4	4194573.0	7.9	3.66	0.85	1.70	NO
L0010924	0	0.25381E-02	655076.4	4194574.6	7.9	3.66	0.85	1.70	NO
L0010925	0	0.25381E-02	655075.5	4194576.2	7.9	3.66	0.85	1.70	NO
L0010926	0	0.25381E-02	655074.6	4194577.7	7.9	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

*** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE SCALAR VARY BY
L0010927	0	0.25381E-02	655073.7	4194579.3	7.9	3.66	0.85	1.70	NO
L0010928	0	0.25381E-02	655072.8	4194580.9	7.9	3.66	0.85	1.70	NO
L0010929	0	0.25381E-02	655071.8	4194582.5	7.9	3.66	0.85	1.70	NO
L0010930	0	0.25381E-02	655070.9	4194584.1	7.9	3.66	0.85	1.70	NO
L0010931	0	0.25381E-02	655070.0	4194585.6	7.9	3.66	0.85	1.70	NO
L0010932	0	0.25381E-02	655069.1	4194587.2	7.9	3.66	0.85	1.70	NO
L0010933	0	0.25381E-02	655068.2	4194588.8	7.9	3.66	0.85	1.70	NO
L0010934	0	0.25381E-02	655067.2	4194590.4	7.9	3.66	0.85	1.70	NO
L0010935	0	0.25381E-02	655066.3	4194592.0	7.9	3.66	0.85	1.70	NO
L0010936	0	0.25381E-02	655065.4	4194593.5	7.9	3.66	0.85	1.70	NO
L0010937	0	0.25381E-02	655064.5	4194595.1	7.9	3.66	0.85	1.70	NO
L0010938	0	0.25381E-02	655063.6	4194596.7	7.9	3.66	0.85	1.70	NO
L0010939	0	0.25381E-02	655062.7	4194598.3	7.9	3.66	0.85	1.70	NO
L0010940	0	0.25381E-02	655061.7	4194599.9	7.9	3.66	0.85	1.70	NO
L0010941	0	0.25381E-02	655060.8	4194601.4	7.9	3.66	0.85	1.70	NO
L0010942	0	0.25381E-02	655059.9	4194603.0	7.9	3.66	0.85	1.70	NO
L0010943	0	0.25381E-02	655059.0	4194604.6	7.9	3.66	0.85	1.70	NO
L0010944	0	0.25381E-02	655058.1	4194606.2	7.9	3.66	0.85	1.70	NO
L0010945	0	0.25381E-02	655057.1	4194607.8	7.9	3.66	0.85	1.70	NO
L0010946	0	0.22272E-02	655691.6	4193994.8	8.5	3.66	0.85	1.70	NO
L0010947	0	0.22272E-02	655691.0	4193996.5	8.5	3.66	0.85	1.70	NO
L0010948	0	0.22272E-02	655690.4	4193998.2	8.5	3.66	0.85	1.70	NO
L0010949	0	0.22272E-02	655689.8	4194000.0	8.5	3.66	0.85	1.70	NO
L0010950	0	0.22272E-02	655689.2	4194001.7	8.5	3.66	0.85	1.70	NO
L0010951	0	0.22272E-02	655688.6	4194003.4	8.5	3.66	0.85	1.70	NO
L0010952	0	0.22272E-02	655687.9	4194005.1	8.5	3.66	0.85	1.70	NO
L0010953	0	0.22272E-02	655687.3	4194006.8	8.5	3.66	0.85	1.70	NO
L0010954	0	0.22272E-02	655686.7	4194008.6	8.5	3.66	0.85	1.70	NO
L0010955	0	0.22272E-02	655686.1	4194010.3	8.5	3.66	0.85	1.70	NO
L0010956	0	0.22272E-02	655685.5	4194012.0	8.5	3.66	0.85	1.70	NO
L0010957	0	0.22272E-02	655684.9	4194013.7	8.5	3.66	0.85	1.70	NO
L0010958	0	0.22272E-02	655684.3	4194015.5	8.5	3.66	0.85	1.70	NO
L0010959	0	0.22272E-02	655683.7	4194017.2	8.5	3.66	0.85	1.70	NO
L0010960	0	0.22272E-02	655683.0	4194018.9	8.5	3.66	0.85	1.70	NO
L0010961	0	0.22272E-02	655682.4	4194020.6	8.5	3.66	0.85	1.70	NO
L0010962	0	0.22272E-02	655681.8	4194022.4	8.5	3.66	0.85	1.70	NO
L0010963	0	0.22272E-02	655681.2	4194024.1	8.5	3.66	0.85	1.70	NO
L0010964	0	0.22272E-02	655680.6	4194025.8	8.5	3.66	0.85	1.70	NO
L0010965	0	0.22272E-02	655680.0	4194027.5	8.5	3.66	0.85	1.70	NO
L0010966	0	0.22272E-02	655679.4	4194029.2	8.5	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE SCALAR VARY BY
L0010967	0	0.22272E-02	655678.8	4194031.0	8.5	3.66	0.85	1.70	NO
L0010968	0	0.22272E-02	655678.1	4194032.7	8.5	3.66	0.85	1.70	NO
L0010969	0	0.22272E-02	655677.5	4194034.4	8.5	3.66	0.85	1.70	NO
L0010970	0	0.22272E-02	655676.9	4194036.1	8.5	3.66	0.85	1.70	NO
L0010971	0	0.22272E-02	655676.3	4194037.9	8.5	3.66	0.85	1.70	NO
L0010972	0	0.22272E-02	655675.7	4194039.6	8.5	3.66	0.85	1.70	NO
L0010973	0	0.22272E-02	655675.1	4194041.3	8.5	3.66	0.85	1.70	NO
L0010974	0	0.22272E-02	655674.5	4194043.0	8.5	3.66	0.85	1.70	NO
L0010975	0	0.22272E-02	655673.9	4194044.8	8.5	3.66	0.85	1.70	NO
L0010976	0	0.22272E-02	655673.2	4194046.5	8.5	3.66	0.85	1.70	NO
L0010977	0	0.22272E-02	655672.6	4194048.2	8.5	3.66	0.85	1.70	NO
L0010978	0	0.22272E-02	655672.0	4194049.9	8.5	3.66	0.85	1.70	NO
L0010979	0	0.22272E-02	655671.4	4194051.6	8.5	3.66	0.85	1.70	NO
L0010980	0	0.22272E-02	655670.8	4194053.4	8.5	3.66	0.85	1.70	NO
L0010981	0	0.22272E-02	655670.2	4194055.1	8.5	3.66	0.85	1.70	NO
L0010982	0	0.22272E-02	655669.6	4194056.8	8.5	3.66	0.85	1.70	NO
L0010983	0	0.22272E-02	655669.0	4194058.5	8.5	3.66	0.85	1.70	NO
L0010984	0	0.22272E-02	655668.3	4194060.3	8.5	3.66	0.85	1.70	NO
L0010985	0	0.22272E-02	655667.7	4194062.0	8.5	3.66	0.85	1.70	NO
L0010986	0	0.22272E-02	655667.1	4194063.7	8.5	3.66	0.85	1.70	NO
L0010987	0	0.22272E-02	655666.5	4194065.4	8.5	3.66	0.85	1.70	NO
L0010988	0	0.22272E-02	655665.9	4194067.2	8.5	3.66	0.85	1.70	NO
L0010989	0	0.22272E-02	655665.3	4194068.9	8.5	3.66	0.85	1.70	NO
L0010990	0	0.22272E-02	655664.7	4194070.6	8.5	3.66	0.85	1.70	NO
L0010991	0	0.22272E-02	655664.1	4194072.3	8.5	3.66	0.85	1.70	NO
L0010992	0	0.22272E-02	655663.4	4194074.0	8.4	3.66	0.85	1.70	NO
L0010993	0	0.22272E-02	655662.8	4194075.8	8.4	3.66	0.85	1.70	NO
L0010994	0	0.22272E-02	655662.2	4194077.5	8.4	3.66	0.85	1.70	NO
L0010995	0	0.22272E-02	655661.6	4194079.2	8.4	3.66	0.85	1.70	NO
L0010996	0	0.22272E-02	655661.0	4194080.9	8.4	3.66	0.85	1.70	NO
L0010997	0	0.22272E-02	655660.4	4194082.7	8.4	3.66	0.85	1.70	NO
L0010998	0	0.22272E-02	655659.8	4194084.4	8.4	3.66	0.85	1.70	NO
L0010999	0	0.22272E-02	655659.2	4194086.1	8.4	3.66	0.85	1.70	NO
L0011000	0	0.22272E-02	655658.5	4194087.8	8.4	3.66	0.85	1.70	NO
L0011001	0	0.22272E-02	655657.9	4194089.6	8.4	3.66	0.85	1.70	NO
L0011002	0	0.22272E-02	655657.3	4194091.3	8.4	3.66	0.85	1.70	NO
L0011003	0	0.22272E-02	655656.7	4194093.0	8.4	3.66	0.85	1.70	NO
L0011004	0	0.22272E-02	655656.1	4194094.7	8.4	3.66	0.85	1.70	NO
L0011005	0	0.22272E-02	655655.5	4194096.4	8.4	3.66	0.85	1.70	NO
L0011006	0	0.22272E-02	655654.9	4194098.2	8.4	3.66	0.85	1.70	NO

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*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PARTS	EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE (METERS)	EMISSION RATE SCALAR VARY BY
L0011007	0	0.22272E-02	655654.2	4194099.9	8.4	3.66	0.85	1.70	NO	
L0011008	0	0.22272E-02	655653.6	4194101.6	8.4	3.66	0.85	1.70	NO	
L0011009	0	0.22272E-02	655653.0	4194103.3	8.4	3.66	0.85	1.70	NO	
L0011010	0	0.22272E-02	655652.4	4194105.1	8.4	3.66	0.85	1.70	NO	
L0011011	0	0.22272E-02	655651.8	4194106.8	8.4	3.66	0.85	1.70	NO	
L0011012	0	0.22272E-02	655651.2	4194108.5	8.4	3.66	0.85	1.70	NO	
L0011013	0	0.22272E-02	655650.6	4194110.2	8.4	3.66	0.85	1.70	NO	
L0011014	0	0.22272E-02	655650.0	4194112.0	8.4	3.66	0.85	1.70	NO	
L0011015	0	0.22272E-02	655649.3	4194113.7	8.4	3.66	0.85	1.70	NO	
L0011016	0	0.22272E-02	655648.7	4194115.4	8.4	3.66	0.85	1.70	NO	
L0011017	0	0.22272E-02	655648.1	4194117.1	8.4	3.66	0.85	1.70	NO	
L0011018	0	0.22272E-02	655647.5	4194118.8	8.4	3.66	0.85	1.70	NO	
L0011019	0	0.22272E-02	655646.9	4194120.6	8.4	3.66	0.85	1.70	NO	
L0011020	0	0.22272E-02	655646.3	4194122.3	8.4	3.66	0.85	1.70	NO	
L0011021	0	0.22272E-02	655645.7	4194124.0	8.4	3.66	0.85	1.70	NO	
L0011022	0	0.22272E-02	655645.1	4194125.7	8.4	3.66	0.85	1.70	NO	
L0011023	0	0.22272E-02	655644.4	4194127.5	8.4	3.66	0.85	1.70	NO	
L0011024	0	0.22272E-02	655643.8	4194129.2	8.4	3.66	0.85	1.70	NO	
L0011025	0	0.22272E-02	655643.2	4194130.9	8.4	3.66	0.85	1.70	NO	
L0011026	0	0.22272E-02	655642.6	4194132.6	8.4	3.66	0.85	1.70	NO	
L0011027	0	0.22272E-02	655642.0	4194134.4	8.4	3.66	0.85	1.70	NO	
L0011028	0	0.22272E-02	655641.4	4194136.1	8.4	3.66	0.85	1.70	NO	
L0011029	0	0.22272E-02	655640.8	4194137.8	8.4	3.66	0.85	1.70	NO	
L0011030	0	0.22272E-02	655640.2	4194139.5	8.4	3.66	0.85	1.70	NO	
L0011031	0	0.22272E-02	655639.5	4194141.2	8.4	3.66	0.85	1.70	NO	
L0011032	0	0.22272E-02	655638.9	4194143.0	8.4	3.66	0.85	1.70	NO	
L0011033	0	0.22272E-02	655638.3	4194144.7	8.4	3.66	0.85	1.70	NO	
L0011034	0	0.22272E-02	655637.7	4194146.4	8.4	3.66	0.85	1.70	NO	
L0011035	0	0.22272E-02	655637.1	4194148.1	8.4	3.66	0.85	1.70	NO	
L0011036	0	0.22272E-02	655636.5	4194149.9	8.4	3.66	0.85	1.70	NO	
L0011037	0	0.22272E-02	655635.9	4194151.6	8.4	3.66	0.85	1.70	NO	
L0011038	0	0.22272E-02	655635.3	4194153.3	8.4	3.66	0.85	1.70	NO	
L0011039	0	0.22272E-02	655634.6	4194155.0	8.4	3.66	0.85	1.70	NO	
L0011040	0	0.22272E-02	655634.0	4194156.8	8.4	3.66	0.85	1.70	NO	
L0011041	0	0.22272E-02	655633.4	4194158.5	8.4	3.66	0.85	1.70	NO	
L0011042	0	0.22272E-02	655632.8	4194160.2	8.4	3.66	0.85	1.70	NO	
L0011043	0	0.22272E-02	655632.2	4194161.9	8.4	3.66	0.85	1.70	NO	
L0011044	0	0.22272E-02	655631.6	4194163.6	8.4	3.66	0.85	1.70	NO	
L0011045	0	0.22272E-02	655631.0	4194165.4	8.4	3.66	0.85	1.70	NO	
L0011046	0	0.22272E-02	655630.4	4194167.1	8.4	3.66	0.85	1.70	NO	

*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	RELEASE X (METERS)	BASE Y (METERS)	INIT. ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE (METERS)	EMISSION RATE SCALAR VARY BY
L0011047	0	0.22272E-02	655629.7	4194168.8	8.4	3.66	0.85	1.70	NO	
L0011048	0	0.22272E-02	655629.1	4194170.5	8.4	3.66	0.85	1.70	NO	
L0011049	0	0.22272E-02	655628.5	4194172.3	8.4	3.66	0.85	1.70	NO	
L0011050	0	0.22272E-02	655627.9	4194174.0	8.4	3.66	0.85	1.70	NO	
L0011051	0	0.22272E-02	655627.3	4194175.7	8.4	3.66	0.85	1.70	NO	
L0011052	0	0.22272E-02	655626.7	4194177.4	8.4	3.66	0.85	1.70	NO	
L0011053	0	0.22272E-02	655626.1	4194179.2	8.4	3.66	0.85	1.70	NO	
L0011054	0	0.22272E-02	655625.4	4194180.9	8.4	3.66	0.85	1.70	NO	
L0011055	0	0.22272E-02	655624.8	4194182.6	8.4	3.66	0.85	1.70	NO	
L0011056	0	0.22272E-02	655624.2	4194184.3	8.4	3.66	0.85	1.70	NO	
L0011057	0	0.22272E-02	655623.6	4194186.0	8.4	3.66	0.85	1.70	NO	
L0011058	0	0.22272E-02	655623.0	4194187.8	8.4	3.66	0.85	1.70	NO	
L0011059	0	0.22272E-02	655622.4	4194189.5	8.4	3.66	0.85	1.70	NO	
L0011060	0	0.22272E-02	655621.8	4194191.2	8.4	3.66	0.85	1.70	NO	
L0011061	0	0.22272E-02	655621.2	4194192.9	8.4	3.66	0.85	1.70	NO	
L0011062	0	0.22272E-02	655620.5	4194194.7	8.4	3.66	0.85	1.70	NO	
L0011063	0	0.22272E-02	655619.9	4194196.4	8.4	3.66	0.85	1.70	NO	
L0011064	0	0.22272E-02	655619.3	4194198.1	8.4	3.66	0.85	1.70	NO	
L0011065	0	0.22272E-02	655618.7	4194199.8	8.4	3.66	0.85	1.70	NO	
L0011066	0	0.22272E-02	655618.1	4194201.6	8.4	3.66	0.85	1.70	NO	
L0011067	0	0.22272E-02	655617.5	4194203.3	8.4	3.66	0.85	1.70	NO	
L0011068	0	0.22272E-02	655616.9	4194205.0	8.4	3.66	0.85	1.70	NO	
L0011069	0	0.22272E-02	655616.3	4194206.7	8.4	3.66	0.85	1.70	NO	
L0011070	0	0.22272E-02	655615.6	4194208.4	8.4	3.66	0.85	1.70	NO	
L0011071	0	0.22272E-02	655615.0	4194210.2	8.4	3.66	0.85	1.70	NO	
L0011072	0	0.22272E-02	655614.4	4194211.9	8.4	3.66	0.85	1.70	NO	
L0011073	0	0.22272E-02	655613.8	4194213.6	8.4	3.66	0.85	1.70	NO	
L0011074	0	0.22272E-02	655613.2	4194215.3	8.4	3.66	0.85	1.70	NO	
L0011075	0	0.22272E-02	655612.6	4194217.1	8.4	3.66	0.85	1.70	NO	
L0011076	0	0.22272E-02	655612.0	4194218.8	8.4	3.66	0.85	1.70	NO	
L0011077	0	0.22272E-02	655611.4	4194220.5	8.4	3.66	0.85	1.70	NO	
L0011078	0	0.22272E-02	655610.7	4194222.2	8.4	3.66	0.85	1.70	NO	
L0011079	0	0.22272E-02	655610.1	4194224.0	8.4	3.66	0.85	1.70	NO	
L0011080	0	0.22272E-02	655609.5	4194225.7	8.4	3.66	0.85	1.70	NO	
L0011081	0	0.22272E-02	655608.9	4194227.4	8.4	3.66	0.85	1.70	NO	
L0011082	0	0.22272E-02	655608.3	4194229.1	8.4	3.66	0.85	1.70	NO	
L0011083	0	0.22272E-02	655607.7	4194230.8	8.4	3.66	0.85	1.70	NO	
L0011084	0	0.22272E-02	655607.1	4194232.6	8.4	3.66	0.85	1.70	NO	
L0011085	0	0.22272E-02	655606.5	4194234.3	8.4	3.66	0.85	1.70	NO	
L0011086	0	0.22272E-02	655605.8	4194236.0	8.4	3.66	0.85	1.70	NO	

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE
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SOURCE ID	PART. CATS.	(GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	SOURCE SCALAR	VARY BY
L0011087	0	0.22272E-02	655605.2	4194237.7	8.4	3.66	0.85	1.70	NO	
L0011088	0	0.22272E-02	655604.6	4194239.5	8.4	3.66	0.85	1.70	NO	
L0011089	0	0.22272E-02	655604.0	4194241.2	8.4	3.66	0.85	1.70	NO	
L0011090	0	0.22272E-02	655603.4	4194242.9	8.4	3.66	0.85	1.70	NO	
L0011091	0	0.22272E-02	655602.8	4194244.6	8.4	3.66	0.85	1.70	NO	
L0011092	0	0.22272E-02	655602.2	4194246.4	8.4	3.66	0.85	1.70	NO	
L0011093	0	0.22272E-02	655601.6	4194248.1	8.4	3.66	0.85	1.70	NO	
L0011094	0	0.22272E-02	655600.9	4194249.8	8.5	3.66	0.85	1.70	NO	
L0011095	0	0.22272E-02	655600.3	4194251.5	8.5	3.66	0.85	1.70	NO	
L0011096	0	0.22272E-02	655599.7	4194253.2	8.5	3.66	0.85	1.70	NO	
L0011097	0	0.22272E-02	655599.1	4194255.0	8.5	3.66	0.85	1.70	NO	
L0011098	0	0.22272E-02	655598.5	4194256.7	8.5	3.66	0.85	1.70	NO	
L0011099	0	0.22272E-02	655597.9	4194258.4	8.5	3.66	0.85	1.70	NO	
L0011100	0	0.22272E-02	655597.3	4194260.1	8.5	3.66	0.85	1.70	NO	
L0011101	0	0.22272E-02	655596.6	4194261.9	8.5	3.66	0.85	1.70	NO	
L0011102	0	0.22272E-02	655596.0	4194263.6	8.5	3.66	0.85	1.70	NO	
L0011103	0	0.22272E-02	655595.4	4194265.3	8.5	3.66	0.85	1.70	NO	
L0011104	0	0.22272E-02	655594.8	4194267.0	8.5	3.66	0.85	1.70	NO	
L0011105	0	0.22272E-02	655594.2	4194268.8	8.5	3.66	0.85	1.70	NO	
L0011106	0	0.22272E-02	655593.6	4194270.5	8.5	3.66	0.85	1.70	NO	
L0011107	0	0.22272E-02	655593.0	4194272.2	8.5	3.66	0.85	1.70	NO	
L0011108	0	0.22272E-02	655592.4	4194273.9	8.5	3.66	0.85	1.70	NO	
L0011109	0	0.22272E-02	655591.7	4194275.6	8.5	3.66	0.85	1.70	NO	
L0011110	0	0.22272E-02	655591.1	4194277.4	8.5	3.66	0.85	1.70	NO	
L0011111	0	0.22272E-02	655590.5	4194279.1	8.5	3.66	0.85	1.70	NO	
L0011112	0	0.22272E-02	655589.9	4194280.8	8.5	3.66	0.85	1.70	NO	
L0011113	0	0.22272E-02	655589.3	4194282.5	8.5	3.66	0.85	1.70	NO	
L0011114	0	0.22272E-02	655588.7	4194284.3	8.5	3.66	0.85	1.70	NO	
L0011115	0	0.22272E-02	655588.1	4194286.0	8.5	3.66	0.85	1.70	NO	
L0011116	0	0.22272E-02	655587.5	4194287.7	8.5	3.66	0.85	1.70	NO	
L0011117	0	0.22272E-02	655586.8	4194289.4	8.5	3.66	0.85	1.70	NO	
L0011118	0	0.22272E-02	655586.2	4194291.2	8.5	3.66	0.85	1.70	NO	
L0011119	0	0.22272E-02	655585.6	4194292.9	8.5	3.66	0.85	1.70	NO	
L0011120	0	0.22272E-02	655585.0	4194294.6	8.5	3.66	0.85	1.70	NO	
L0011121	0	0.22272E-02	655584.4	4194296.3	8.5	3.66	0.85	1.70	NO	
L0011122	0	0.22272E-02	655583.8	4194298.0	8.5	3.66	0.85	1.70	NO	
L0011123	0	0.22272E-02	655583.2	4194299.8	8.5	3.66	0.85	1.70	NO	
L0011124	0	0.22272E-02	655582.6	4194301.5	8.5	3.66	0.85	1.70	NO	
L0011125	0	0.22272E-02	655581.9	4194303.2	8.5	3.66	0.85	1.70	NO	
L0011126	0	0.22272E-02	655581.3	4194304.9	8.5	3.66	0.85	1.70	NO	

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ

ID CATS. (METERS) (METERS) (METERS) (METERS) (METERS) (METERS) (METERS) BY

L0011127 0 0.22272E-02 655580.7 4194306.7 8.5 3.66 0.85 1.70 NO
L0011128 0 0.22272E-02 655580.1 4194308.4 8.5 3.66 0.85 1.70 NO
L0011129 0 0.22272E-02 655579.5 4194310.1 8.5 3.66 0.85 1.70 NO
L0011130 0 0.22272E-02 655578.9 4194311.8 8.5 3.66 0.85 1.70 NO
L0011131 0 0.22272E-02 655578.3 4194313.6 8.5 3.66 0.85 1.70 NO
L0011132 0 0.22272E-02 655577.7 4194315.3 8.5 3.66 0.85 1.70 NO
L0011133 0 0.22272E-02 655577.0 4194317.0 8.5 3.66 0.85 1.70 NO
L0011134 0 0.22272E-02 655576.4 4194318.7 8.5 3.66 0.85 1.70 NO
L0011135 0 0.22272E-02 655575.8 4194320.4 8.5 3.66 0.85 1.70 NO
L0011136 0 0.22272E-02 655575.2 4194322.2 8.5 3.66 0.85 1.70 NO
L0011137 0 0.22272E-02 655574.6 4194323.9 8.5 3.66 0.85 1.70 NO
L0011138 0 0.22272E-02 655574.0 4194325.6 8.5 3.66 0.85 1.70 NO
L0011139 0 0.22272E-02 655573.4 4194327.3 8.5 3.66 0.85 1.70 NO
L0011140 0 0.22272E-02 655572.8 4194329.1 8.5 3.66 0.85 1.70 NO
L0011141 0 0.22272E-02 655572.1 4194330.8 8.5 3.66 0.85 1.70 NO
L0011142 0 0.22272E-02 655571.5 4194332.5 8.5 3.66 0.85 1.70 NO
L0011143 0 0.22272E-02 655570.9 4194334.2 8.5 3.66 0.85 1.70 NO
L0011144 0 0.22272E-02 655570.3 4194336.0 8.5 3.66 0.85 1.70 NO
L0011145 0 0.22272E-02 655569.7 4194337.7 8.5 3.66 0.85 1.70 NO
L0011146 0 0.22272E-02 655569.1 4194339.4 8.5 3.66 0.85 1.70 NO
L0011147 0 0.22272E-02 655568.5 4194341.1 8.5 3.66 0.85 1.70 NO
L0011148 0 0.22272E-02 655567.8 4194342.8 8.5 3.66 0.85 1.70 NO
L0011149 0 0.22272E-02 655567.2 4194344.6 8.5 3.66 0.85 1.70 NO
L0011150 0 0.22272E-02 655566.6 4194346.3 8.5 3.66 0.85 1.70 NO
L0011151 0 0.22272E-02 655566.0 4194348.0 8.5 3.66 0.85 1.70 NO
L0011152 0 0.22272E-02 655565.4 4194349.7 8.5 3.66 0.85 1.70 NO
L0011153 0 0.22272E-02 655564.8 4194351.5 8.5 3.66 0.85 1.70 NO
L0011154 0 0.22272E-02 655564.2 4194353.2 8.5 3.66 0.85 1.70 NO
L0011155 0 0.22272E-02 655563.6 4194354.9 8.5 3.66 0.85 1.70 NO
L0011156 0 0.22272E-02 655562.9 4194356.6 8.5 3.66 0.85 1.70 NO
L0011157 0 0.22272E-02 655562.3 4194358.4 8.5 3.66 0.85 1.70 NO
L0011158 0 0.22272E-02 655561.7 4194360.1 8.5 3.66 0.85 1.70 NO
L0011159 0 0.22272E-02 655561.1 4194361.8 8.5 3.66 0.85 1.70 NO
L0011160 0 0.22272E-02 655560.5 4194363.5 8.5 3.66 0.85 1.70 NO
L0011161 0 0.22272E-02 655559.9 4194365.2 8.5 3.66 0.85 1.70 NO
L0011162 0 0.22272E-02 655559.3 4194367.0 8.5 3.66 0.85 1.70 NO
L0011163 0 0.22272E-02 655558.7 4194368.7 8.5 3.66 0.85 1.70 NO
L0011164 0 0.22272E-02 655558.0 4194370.4 8.5 3.66 0.85 1.70 NO
L0011165 0 0.22272E-02 655557.4 4194372.1 8.5 3.66 0.85 1.70 NO
L0011166 0 0.22272E-02 655556.8 4194373.9 8.5 3.66 0.85 1.70 NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE			
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY

Table with 10 columns: ID, CATS, EMISSION RATE (GRAMS/SEC), X (METERS), Y (METERS), BASE ELEV. (METERS), RELEASE HEIGHT (METERS), INIT. SY (METERS), INIT. SZ (METERS), URBAN EMISSION RATE SCALAR, VARY BY. Rows 1-206.

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

Table with 10 columns: NUMBER, EMISSION RATE, SOURCE PART., (GRAMS/SEC), X, Y, BASE ELEV., RELEASE HEIGHT, INIT. SY, INIT. SZ, URBAN EMISSION RATE SCALAR, VARY BY. Rows 1-10.

L0011207	0	0.22272E-02	655531.7	4194444.5	8.4	3.66	0.85	1.70	NO
L0011208	0	0.22272E-02	655531.1	4194446.2	8.4	3.66	0.85	1.70	NO
L0011209	0	0.22272E-02	655530.5	4194448.0	8.4	3.66	0.85	1.70	NO
L0011210	0	0.22272E-02	655529.9	4194449.7	8.4	3.66	0.85	1.70	NO
L0011211	0	0.22272E-02	655529.2	4194451.4	8.4	3.66	0.85	1.70	NO
L0011212	0	0.22272E-02	655528.6	4194453.1	8.4	3.66	0.85	1.70	NO
L0011213	0	0.22272E-02	655528.0	4194454.8	8.4	3.66	0.85	1.70	NO
L0011214	0	0.22272E-02	655527.4	4194456.6	8.4	3.66	0.85	1.70	NO
L0011215	0	0.22272E-02	655526.8	4194458.3	8.4	3.66	0.85	1.70	NO
L0011216	0	0.22272E-02	655526.2	4194460.0	8.4	3.66	0.85	1.70	NO
L0011217	0	0.22272E-02	655525.6	4194461.7	8.4	3.66	0.85	1.70	NO
L0011218	0	0.22272E-02	655525.0	4194463.5	8.4	3.66	0.85	1.70	NO
L0011219	0	0.22272E-02	655524.3	4194465.2	8.4	3.66	0.85	1.70	NO
L0011220	0	0.22272E-02	655523.7	4194466.9	8.4	3.66	0.85	1.70	NO
L0011221	0	0.22272E-02	655523.1	4194468.6	8.4	3.66	0.85	1.70	NO
L0011222	0	0.22272E-02	655522.5	4194470.4	8.4	3.66	0.85	1.70	NO
L0011223	0	0.22272E-02	655521.9	4194472.1	8.4	3.66	0.85	1.70	NO
L0011224	0	0.22272E-02	655521.3	4194473.8	8.4	3.66	0.85	1.70	NO
L0011225	0	0.22272E-02	655520.7	4194475.5	8.4	3.66	0.85	1.70	NO
L0011226	0	0.22272E-02	655520.1	4194477.2	8.4	3.66	0.85	1.70	NO
L0011227	0	0.22272E-02	655519.4	4194479.0	8.4	3.66	0.85	1.70	NO
L0011228	0	0.22272E-02	655518.8	4194480.7	8.4	3.66	0.85	1.70	NO
L0011229	0	0.22272E-02	655518.2	4194482.4	8.4	3.66	0.85	1.70	NO
L0011230	0	0.22272E-02	655517.6	4194484.1	8.4	3.66	0.85	1.70	NO
L0011231	0	0.22272E-02	655517.0	4194485.9	8.4	3.66	0.85	1.70	NO
L0011232	0	0.22272E-02	655516.4	4194487.6	8.4	3.66	0.85	1.70	NO
L0011233	0	0.22272E-02	655515.8	4194489.3	8.4	3.66	0.85	1.70	NO
L0011234	0	0.22272E-02	655515.2	4194491.0	8.4	3.66	0.85	1.70	NO
L0011235	0	0.22272E-02	655514.5	4194492.8	8.4	3.66	0.85	1.70	NO
L0011236	0	0.22272E-02	655513.9	4194494.5	8.4	3.66	0.85	1.70	NO
L0011237	0	0.22272E-02	655513.3	4194496.2	8.4	3.66	0.85	1.70	NO
L0011238	0	0.22272E-02	655512.7	4194497.9	8.4	3.66	0.85	1.70	NO
L0011239	0	0.22272E-02	655512.1	4194499.6	8.4	3.66	0.85	1.70	NO
L0011240	0	0.22272E-02	655511.5	4194501.4	8.4	3.66	0.85	1.70	NO
L0011241	0	0.22272E-02	655510.9	4194503.1	8.4	3.66	0.85	1.70	NO
L0011242	0	0.22272E-02	655510.2	4194504.8	8.4	3.66	0.85	1.70	NO
L0011243	0	0.22272E-02	655509.6	4194506.5	8.4	3.66	0.85	1.70	NO
L0011244	0	0.22272E-02	655509.0	4194508.3	8.4	3.66	0.85	1.70	NO
L0011245	0	0.22272E-02	655508.4	4194510.0	8.4	3.66	0.85	1.70	NO
L0011246	0	0.22272E-02	655507.8	4194511.7	8.4	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE			INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0011247	0	0.22272E-02	655507.2	4194513.4	8.4	3.66	0.85	1.70	NO

L0011248	0	0.22272E-02	655506.6	4194515.2	8.4	3.66	0.85	1.70	NO
L0011249	0	0.22272E-02	655506.0	4194516.9	8.4	3.66	0.85	1.70	NO
L0011250	0	0.22272E-02	655505.3	4194518.6	8.4	3.66	0.85	1.70	NO
L0011251	0	0.22272E-02	655504.7	4194520.3	8.4	3.66	0.85	1.70	NO
L0011252	0	0.22272E-02	655504.1	4194522.0	8.4	3.66	0.85	1.70	NO
L0011253	0	0.22272E-02	655503.5	4194523.8	8.4	3.66	0.85	1.70	NO
L0011254	0	0.22272E-02	655502.9	4194525.5	8.4	3.66	0.85	1.70	NO
L0011255	0	0.22272E-02	655502.3	4194527.2	8.4	3.66	0.85	1.70	NO
L0011256	0	0.22272E-02	655501.7	4194528.9	8.4	3.66	0.85	1.70	NO
L0011257	0	0.22272E-02	655501.1	4194530.7	8.4	3.66	0.85	1.70	NO
L0011258	0	0.22272E-02	655500.4	4194532.4	8.4	3.66	0.85	1.70	NO
L0011259	0	0.22272E-02	655499.8	4194534.1	8.4	3.66	0.85	1.70	NO
L0011260	0	0.22272E-02	655499.2	4194535.8	8.4	3.66	0.85	1.70	NO
L0011261	0	0.22272E-02	655498.6	4194537.6	8.4	3.66	0.85	1.70	NO
L0011262	0	0.22272E-02	655498.0	4194539.3	8.4	3.66	0.85	1.70	NO
L0011263	0	0.22272E-02	655497.4	4194541.0	8.4	3.66	0.85	1.70	NO
L0011264	0	0.22272E-02	655496.8	4194542.7	8.4	3.66	0.85	1.70	NO
L0011265	0	0.22272E-02	655496.2	4194544.4	8.4	3.66	0.85	1.70	NO
L0011266	0	0.22272E-02	655495.5	4194546.2	8.4	3.66	0.85	1.70	NO
L0011267	0	0.22272E-02	655494.9	4194547.9	8.4	3.66	0.85	1.70	NO
L0011268	0	0.22272E-02	655494.3	4194549.6	8.4	3.66	0.85	1.70	NO
L0011269	0	0.22272E-02	655493.7	4194551.3	8.4	3.66	0.85	1.70	NO
L0011270	0	0.22272E-02	655493.1	4194553.1	8.4	3.66	0.85	1.70	NO
L0011271	0	0.22272E-02	655492.5	4194554.8	8.4	3.66	0.85	1.70	NO
L0011272	0	0.22272E-02	655491.9	4194556.5	8.4	3.66	0.85	1.70	NO
L0011273	0	0.22272E-02	655491.3	4194558.2	8.4	3.66	0.85	1.70	NO
L0011274	0	0.22272E-02	655490.6	4194560.0	8.4	3.66	0.85	1.70	NO
L0011275	0	0.22272E-02	655490.0	4194561.7	8.4	3.66	0.85	1.70	NO
L0011276	0	0.22272E-02	655489.4	4194563.4	8.4	3.66	0.85	1.70	NO
L0011277	0	0.22272E-02	655488.8	4194565.1	8.4	3.66	0.85	1.70	NO
L0011278	0	0.22272E-02	655488.2	4194566.8	8.4	3.66	0.85	1.70	NO
L0011279	0	0.22272E-02	655487.6	4194568.6	8.4	3.66	0.85	1.70	NO
L0011280	0	0.22272E-02	655487.0	4194570.3	8.4	3.66	0.85	1.70	NO
L0011281	0	0.22272E-02	655486.4	4194572.0	8.4	3.66	0.85	1.70	NO
L0011282	0	0.22272E-02	655485.7	4194573.7	8.4	3.66	0.85	1.70	NO
L0011283	0	0.22272E-02	655485.1	4194575.5	8.4	3.66	0.85	1.70	NO
L0011284	0	0.22272E-02	655484.5	4194577.2	8.4	3.66	0.85	1.70	NO
L0011285	0	0.22272E-02	655483.9	4194578.9	8.4	3.66	0.85	1.70	NO
L0011286	0	0.22272E-02	655483.3	4194580.6	8.4	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 ***

*** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S ***

02/22/22

*** AERMET - VERSION 18081 ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0011287	0	0.22272E-02	655482.7	4194582.4	8.4	3.66	0.85	1.70	NO
L0011288	0	0.22272E-02	655482.1	4194584.1	8.4	3.66	0.85	1.70	NO

L0011289	0	0.22272E-02	655481.5	4194585.8	8.4	3.66	0.85	1.70	NO
L0011290	0	0.22272E-02	655480.8	4194587.5	8.4	3.66	0.85	1.70	NO
L0011291	0	0.22272E-02	655480.2	4194589.2	8.4	3.66	0.85	1.70	NO
L0011292	0	0.22272E-02	655479.6	4194591.0	8.4	3.66	0.85	1.70	NO
L0011293	0	0.22272E-02	655479.0	4194592.7	8.4	3.66	0.85	1.70	NO
L0011294	0	0.22272E-02	655478.4	4194594.4	8.4	3.66	0.85	1.70	NO
L0011295	0	0.22272E-02	655477.8	4194596.1	8.4	3.66	0.85	1.70	NO
L0011296	0	0.22272E-02	655477.2	4194597.9	8.4	3.66	0.85	1.70	NO
L0011297	0	0.22272E-02	655476.5	4194599.6	8.4	3.66	0.85	1.70	NO
L0011298	0	0.22272E-02	655475.9	4194601.3	8.4	3.66	0.85	1.70	NO
L0011299	0	0.22272E-02	655475.3	4194603.0	8.4	3.66	0.85	1.70	NO
L0011300	0	0.22272E-02	655474.7	4194604.8	8.4	3.66	0.85	1.70	NO
L0011301	0	0.22272E-02	655474.1	4194606.5	8.4	3.66	0.85	1.70	NO
L0011302	0	0.22272E-02	655473.5	4194608.2	8.4	3.66	0.85	1.70	NO
L0011303	0	0.22272E-02	655472.9	4194609.9	8.4	3.66	0.85	1.70	NO
L0011304	0	0.22272E-02	655472.3	4194611.6	8.4	3.66	0.85	1.70	NO
L0011305	0	0.22272E-02	655471.6	4194613.4	8.4	3.66	0.85	1.70	NO
L0011306	0	0.22272E-02	655471.0	4194615.1	8.4	3.66	0.85	1.70	NO
L0011307	0	0.22272E-02	655470.4	4194616.8	8.4	3.66	0.85	1.70	NO
L0011308	0	0.22272E-02	655469.8	4194618.5	8.4	3.66	0.85	1.70	NO
L0011309	0	0.22272E-02	655469.2	4194620.3	8.4	3.66	0.85	1.70	NO
L0011310	0	0.22272E-02	655468.6	4194622.0	8.4	3.66	0.85	1.70	NO
L0011311	0	0.22272E-02	655468.0	4194623.7	8.4	3.66	0.85	1.70	NO
L0011312	0	0.22272E-02	655467.4	4194625.4	8.4	3.66	0.85	1.70	NO
L0011313	0	0.22272E-02	655466.7	4194627.2	8.4	3.66	0.85	1.70	NO
L0011314	0	0.22272E-02	655466.1	4194628.9	8.4	3.66	0.85	1.70	NO
L0011315	0	0.22272E-02	655465.5	4194630.6	8.4	3.66	0.85	1.70	NO
L0011316	0	0.22272E-02	655464.9	4194632.3	8.4	3.66	0.85	1.70	NO
L0011317	0	0.22272E-02	655464.3	4194634.0	8.4	3.66	0.85	1.70	NO
L0011318	0	0.22272E-02	655463.7	4194635.8	8.4	3.66	0.85	1.70	NO
L0011319	0	0.22272E-02	655463.1	4194637.5	8.4	3.66	0.85	1.70	NO
L0011320	0	0.22272E-02	655462.5	4194639.2	8.4	3.66	0.85	1.70	NO
L0011321	0	0.22272E-02	655461.8	4194640.9	8.4	3.66	0.85	1.70	NO
L0011322	0	0.22272E-02	655461.2	4194642.7	8.4	3.66	0.85	1.70	NO
L0011323	0	0.22272E-02	655460.6	4194644.4	8.4	3.66	0.85	1.70	NO
L0011324	0	0.22272E-02	655460.0	4194646.1	8.4	3.66	0.85	1.70	NO
L0011325	0	0.22272E-02	655459.4	4194647.8	8.4	3.66	0.85	1.70	NO
L0011326	0	0.22272E-02	655458.8	4194649.6	8.4	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** ***
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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

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*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.	INIT.	URBAN EMISSION RATE		
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0011327	0	0.22272E-02	655458.2	4194651.3	8.4	3.66	0.85	1.70	NO
L0011328	0	0.22272E-02	655457.6	4194653.0	8.4	3.66	0.85	1.70	NO
L0011329	0	0.22272E-02	655456.9	4194654.7	8.4	3.66	0.85	1.70	NO

L0011330	0	0.22272E-02	655456.3	4194656.4	8.4	3.66	0.85	1.70	NO
L0011331	0	0.22272E-02	655455.7	4194658.2	8.4	3.66	0.85	1.70	NO
L0011332	0	0.22272E-02	655455.1	4194659.9	8.4	3.66	0.85	1.70	NO
L0011333	0	0.22272E-02	655454.5	4194661.6	8.4	3.66	0.85	1.70	NO
L0011334	0	0.22272E-02	655453.9	4194663.3	8.4	3.66	0.85	1.70	NO
L0011335	0	0.22272E-02	655453.3	4194665.1	8.4	3.66	0.85	1.70	NO
L0011336	0	0.22272E-02	655452.7	4194666.8	8.3	3.66	0.85	1.70	NO
L0011337	0	0.22272E-02	655452.0	4194668.5	8.3	3.66	0.85	1.70	NO
L0011338	0	0.22272E-02	655451.4	4194670.2	8.3	3.66	0.85	1.70	NO
L0011339	0	0.22272E-02	655450.8	4194672.0	8.3	3.66	0.85	1.70	NO
L0011340	0	0.22272E-02	655450.2	4194673.7	8.3	3.66	0.85	1.70	NO
L0011341	0	0.22272E-02	655449.6	4194675.4	8.3	3.66	0.85	1.70	NO
L0011342	0	0.22272E-02	655449.0	4194677.1	8.3	3.66	0.85	1.70	NO
L0011343	0	0.22272E-02	655448.4	4194678.8	8.3	3.66	0.85	1.70	NO
L0011344	0	0.22272E-02	655447.7	4194680.6	8.3	3.66	0.85	1.70	NO
L0011345	0	0.22272E-02	655447.1	4194682.3	8.3	3.66	0.85	1.70	NO
L0011346	0	0.22272E-02	655446.5	4194684.0	8.3	3.66	0.85	1.70	NO
L0011347	0	0.22272E-02	655445.9	4194685.7	8.3	3.66	0.85	1.70	NO
L0011348	0	0.22272E-02	655445.3	4194687.5	8.3	3.66	0.85	1.70	NO
L0011349	0	0.22272E-02	655444.7	4194689.2	8.3	3.66	0.85	1.70	NO
L0011350	0	0.22272E-02	655444.1	4194690.9	8.3	3.66	0.85	1.70	NO
L0011351	0	0.22272E-02	655443.5	4194692.6	8.3	3.66	0.85	1.70	NO
L0011352	0	0.22272E-02	655442.8	4194694.4	8.3	3.66	0.85	1.70	NO
L0011353	0	0.22272E-02	655442.2	4194696.1	8.3	3.66	0.85	1.70	NO
L0011354	0	0.22272E-02	655441.6	4194697.8	8.3	3.66	0.85	1.70	NO
L0011355	0	0.22272E-02	655441.0	4194699.5	8.3	3.66	0.85	1.70	NO
L0011356	0	0.22272E-02	655440.4	4194701.2	8.3	3.66	0.85	1.70	NO
L0011357	0	0.22272E-02	655439.8	4194703.0	8.3	3.66	0.85	1.70	NO
L0011358	0	0.22272E-02	655439.2	4194704.7	8.3	3.66	0.85	1.70	NO
L0011359	0	0.22272E-02	655438.6	4194706.4	8.3	3.66	0.85	1.70	NO
L0011360	0	0.22272E-02	655437.9	4194708.1	8.3	3.66	0.85	1.70	NO
L0011361	0	0.22272E-02	655437.3	4194709.9	8.3	3.66	0.85	1.70	NO
L0011362	0	0.22272E-02	655436.7	4194711.6	8.3	3.66	0.85	1.70	NO
L0011363	0	0.22272E-02	655436.1	4194713.3	8.3	3.66	0.85	1.70	NO
L0011364	0	0.22272E-02	655435.5	4194715.0	8.3	3.66	0.85	1.70	NO
L0011365	0	0.22272E-02	655434.9	4194716.8	8.3	3.66	0.85	1.70	NO
L0011366	0	0.22272E-02	655434.3	4194718.5	8.3	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER		EMISSION RATE		BASE		RELEASE		INIT.	INIT.	URBAN		EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY		
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)				BY

L0011367	0	0.22272E-02	655433.7	4194720.2	8.3	3.66	0.85	1.70	NO				
L0011368	0	0.22272E-02	655433.0	4194721.9	8.3	3.66	0.85	1.70	NO				
L0011369	0	0.22272E-02	655432.4	4194723.6	8.3	3.66	0.85	1.70	NO				
L0011370	0	0.22272E-02	655431.8	4194725.4	8.3	3.66	0.85	1.70	NO				

L0011371	0	0.22272E-02	655431.2	4194727.1	8.3	3.66	0.85	1.70	NO
L0011372	0	0.22272E-02	655430.6	4194728.8	8.3	3.66	0.85	1.70	NO
L0011373	0	0.22272E-02	655430.0	4194730.5	8.3	3.66	0.85	1.70	NO
L0011374	0	0.22272E-02	655429.4	4194732.3	8.3	3.66	0.85	1.70	NO
L0011375	0	0.22272E-02	655428.8	4194734.0	8.3	3.66	0.85	1.70	NO
L0011376	0	0.22272E-02	655428.1	4194735.7	8.3	3.66	0.85	1.70	NO
L0011377	0	0.22272E-02	655427.5	4194737.4	8.3	3.66	0.85	1.70	NO
L0011378	0	0.22272E-02	655426.9	4194739.2	8.3	3.66	0.85	1.70	NO
L0011379	0	0.22272E-02	655426.3	4194740.9	8.3	3.66	0.85	1.70	NO
L0011380	0	0.22272E-02	655425.7	4194742.6	8.3	3.66	0.85	1.70	NO
L0011381	0	0.22272E-02	655425.1	4194744.3	8.3	3.66	0.85	1.70	NO
L0011382	0	0.22272E-02	655424.5	4194746.0	8.3	3.66	0.85	1.70	NO
L0011383	0	0.22272E-02	655423.9	4194747.8	8.3	3.66	0.85	1.70	NO
L0011384	0	0.22272E-02	655423.2	4194749.5	8.3	3.66	0.85	1.70	NO
L0011385	0	0.22272E-02	655422.6	4194751.2	8.3	3.66	0.85	1.70	NO
L0011386	0	0.22272E-02	655422.0	4194752.9	8.3	3.66	0.85	1.70	NO
L0011387	0	0.22272E-02	655421.4	4194754.7	8.3	3.66	0.85	1.70	NO
L0011388	0	0.22272E-02	655420.8	4194756.4	8.3	3.66	0.85	1.70	NO
L0011389	0	0.22272E-02	655420.2	4194758.1	8.3	3.66	0.85	1.70	NO
L0011390	0	0.22272E-02	655419.6	4194759.8	8.3	3.66	0.85	1.70	NO
L0011391	0	0.22272E-02	655418.9	4194761.6	8.3	3.66	0.85	1.70	NO
L0011392	0	0.22272E-02	655418.3	4194763.3	8.3	3.66	0.85	1.70	NO
L0011393	0	0.22272E-02	655417.7	4194765.0	8.3	3.66	0.85	1.70	NO
L0011394	0	0.22272E-02	655417.1	4194766.7	8.3	3.66	0.85	1.70	NO
L0011395	0	0.64103E-02	656008.4	4193994.8	9.0	3.66	0.85	1.70	NO
L0011396	0	0.64103E-02	656008.3	4193996.7	9.0	3.66	0.85	1.70	NO
L0011397	0	0.64103E-02	656008.2	4193998.5	9.0	3.66	0.85	1.70	NO
L0011398	0	0.64103E-02	656008.1	4194000.3	9.0	3.66	0.85	1.70	NO
L0011399	0	0.64103E-02	656008.0	4194002.1	9.0	3.66	0.85	1.70	NO
L0011400	0	0.64103E-02	656007.9	4194004.0	9.0	3.66	0.85	1.70	NO
L0011401	0	0.64103E-02	656007.8	4194005.8	9.0	3.66	0.85	1.70	NO
L0011402	0	0.64103E-02	656007.7	4194007.6	9.0	3.66	0.85	1.70	NO
L0011403	0	0.64103E-02	656007.6	4194009.4	9.0	3.66	0.85	1.70	NO
L0011404	0	0.64103E-02	656007.5	4194011.3	9.0	3.66	0.85	1.70	NO
L0011405	0	0.64103E-02	656007.4	4194013.1	9.0	3.66	0.85	1.70	NO
L0011406	0	0.64103E-02	656007.3	4194014.9	9.0	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** ***

*** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE		BASE RELEASE		INIT.	INIT.	URBAN EMISSION RATE			
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	EMMISSION RATE
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	SCALAR	VARY

L0011407	0	0.64103E-02	656007.2	4194016.7	9.0	3.66	0.85	1.70	NO
L0011408	0	0.64103E-02	656007.0	4194018.6	9.0	3.66	0.85	1.70	NO
L0011409	0	0.64103E-02	656006.9	4194020.4	9.0	3.66	0.85	1.70	NO
L0011410	0	0.64103E-02	656006.8	4194022.2	9.0	3.66	0.85	1.70	NO
L0011411	0	0.64103E-02	656006.7	4194024.0	9.0	3.66	0.85	1.70	NO

L0011412	0	0.64103E-02	656006.6	4194025.9	9.0	3.66	0.85	1.70	NO
L0011413	0	0.64103E-02	656006.5	4194027.7	9.0	3.66	0.85	1.70	NO
L0011414	0	0.64103E-02	656006.4	4194029.5	9.0	3.66	0.85	1.70	NO
L0011415	0	0.64103E-02	656006.3	4194031.3	9.0	3.66	0.85	1.70	NO
L0011416	0	0.64103E-02	656006.2	4194033.2	9.0	3.66	0.85	1.70	NO
L0011417	0	0.64103E-02	656006.1	4194035.0	9.0	3.66	0.85	1.70	NO
L0011418	0	0.64103E-02	656006.0	4194036.8	9.0	3.66	0.85	1.70	NO
L0011419	0	0.64103E-02	656005.9	4194038.7	9.0	3.66	0.85	1.70	NO
L0011420	0	0.64103E-02	656005.8	4194040.5	9.0	3.66	0.85	1.70	NO
L0011421	0	0.64103E-02	656005.7	4194042.3	9.0	3.66	0.85	1.70	NO
L0011422	0	0.64103E-02	656005.6	4194044.1	9.0	3.66	0.85	1.70	NO
L0011423	0	0.64103E-02	656005.5	4194046.0	9.0	3.66	0.85	1.70	NO
L0011424	0	0.64103E-02	656005.4	4194047.8	9.0	3.66	0.85	1.70	NO
L0011425	0	0.64103E-02	656005.2	4194049.6	9.0	3.66	0.85	1.70	NO
L0011426	0	0.64103E-02	656005.1	4194051.4	9.0	3.66	0.85	1.70	NO
L0011427	0	0.64103E-02	656005.0	4194053.3	9.0	3.66	0.85	1.70	NO
L0011428	0	0.64103E-02	656004.9	4194055.1	9.0	3.66	0.85	1.70	NO
L0011429	0	0.64103E-02	656004.8	4194056.9	9.0	3.66	0.85	1.70	NO
L0011430	0	0.64103E-02	656004.7	4194058.7	9.0	3.66	0.85	1.70	NO
L0011431	0	0.64103E-02	656004.6	4194060.6	9.0	3.66	0.85	1.70	NO
L0011432	0	0.64103E-02	656004.5	4194062.4	9.0	3.66	0.85	1.70	NO
L0011433	0	0.64103E-02	656004.4	4194064.2	9.0	3.66	0.85	1.70	NO
L0011434	0	0.64103E-02	656004.3	4194066.0	9.0	3.66	0.85	1.70	NO
L0011435	0	0.64103E-02	656004.2	4194067.9	9.0	3.66	0.85	1.70	NO
L0011436	0	0.64103E-02	656004.1	4194069.7	9.0	3.66	0.85	1.70	NO
L0011437	0	0.64103E-02	656004.0	4194071.5	9.0	3.66	0.85	1.70	NO
L0011438	0	0.64103E-02	656003.9	4194073.3	9.0	3.66	0.85	1.70	NO
L0011439	0	0.64103E-02	656003.8	4194075.2	9.0	3.66	0.85	1.70	NO
L0011440	0	0.64103E-02	656003.7	4194077.0	9.0	3.66	0.85	1.70	NO
L0011441	0	0.64103E-02	656003.6	4194078.8	9.0	3.66	0.85	1.70	NO
L0011442	0	0.64103E-02	656003.4	4194080.6	9.0	3.66	0.85	1.70	NO
L0011443	0	0.64103E-02	656003.3	4194082.5	9.0	3.66	0.85	1.70	NO
L0011444	0	0.64103E-02	656003.2	4194084.3	9.0	3.66	0.85	1.70	NO
L0011445	0	0.64103E-02	656003.1	4194086.1	9.0	3.66	0.85	1.70	NO
L0011446	0	0.64103E-02	656003.0	4194087.9	9.0	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE		BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0011447	0	0.64103E-02	656002.9	4194089.8	9.0	3.66	0.85	1.70	NO
L0011448	0	0.64103E-02	656002.8	4194091.6	9.0	3.66	0.85	1.70	NO
L0011449	0	0.64103E-02	656002.7	4194093.4	9.0	3.66	0.85	1.70	NO
L0011450	0	0.64103E-02	656002.6	4194095.2	9.0	3.66	0.85	1.70	NO
L0011451	0	0.64103E-02	656002.5	4194097.1	9.0	3.66	0.85	1.70	NO
L0011452	0	0.64103E-02	656002.4	4194098.9	9.0	3.66	0.85	1.70	NO

L0011453	0	0.64103E-02	656002.3	4194100.7	9.0	3.66	0.85	1.70	NO
L0011454	0	0.64103E-02	656002.2	4194102.6	9.0	3.66	0.85	1.70	NO
L0011455	0	0.64103E-02	656002.1	4194104.4	9.0	3.66	0.85	1.70	NO
L0011456	0	0.64103E-02	656002.0	4194106.2	9.0	3.66	0.85	1.70	NO
L0011457	0	0.64103E-02	656001.9	4194108.0	9.0	3.66	0.85	1.70	NO
L0011458	0	0.64103E-02	656001.8	4194109.9	9.0	3.66	0.85	1.70	NO
L0011459	0	0.64103E-02	656001.6	4194111.7	9.0	3.66	0.85	1.70	NO
L0011460	0	0.64103E-02	656001.5	4194113.5	9.0	3.66	0.85	1.70	NO
L0011461	0	0.64103E-02	656001.4	4194115.3	9.0	3.66	0.85	1.70	NO
L0011462	0	0.64103E-02	656001.3	4194117.2	9.0	3.66	0.85	1.70	NO
L0011463	0	0.64103E-02	656001.2	4194119.0	9.0	3.66	0.85	1.70	NO
L0011464	0	0.64103E-02	656001.1	4194120.8	9.0	3.66	0.85	1.70	NO
L0011465	0	0.64103E-02	656001.0	4194122.6	9.0	3.66	0.85	1.70	NO
L0011466	0	0.64103E-02	656000.9	4194124.5	9.0	3.66	0.85	1.70	NO
L0011467	0	0.64103E-02	656000.8	4194126.3	9.0	3.66	0.85	1.70	NO
L0011468	0	0.64103E-02	656000.7	4194128.1	9.0	3.66	0.85	1.70	NO
L0011469	0	0.64103E-02	656000.6	4194129.9	9.0	3.66	0.85	1.70	NO
L0011470	0	0.64103E-02	656000.5	4194131.8	9.0	3.66	0.85	1.70	NO
L0011471	0	0.64103E-02	656000.4	4194133.6	9.0	3.66	0.85	1.70	NO
L0011472	0	0.64103E-02	656000.3	4194135.4	9.0	3.66	0.85	1.70	NO
L0011473	0	0.64103E-02	656000.2	4194137.2	9.0	3.66	0.85	1.70	NO
L0011474	0	0.64103E-02	656000.1	4194139.1	9.0	3.66	0.85	1.70	NO
L0011475	0	0.64103E-02	656000.0	4194140.9	9.0	3.66	0.85	1.70	NO
L0011476	0	0.64103E-02	655999.8	4194142.7	9.0	3.66	0.85	1.70	NO
L0011477	0	0.64103E-02	655999.7	4194144.5	9.0	3.66	0.85	1.70	NO
L0011478	0	0.64103E-02	655999.6	4194146.4	9.0	3.66	0.85	1.70	NO
L0011479	0	0.64103E-02	655999.5	4194148.2	9.0	3.66	0.85	1.70	NO
L0011480	0	0.64103E-02	655999.4	4194150.0	9.0	3.66	0.85	1.70	NO
L0011481	0	0.64103E-02	655999.3	4194151.8	9.0	3.66	0.85	1.70	NO
L0011482	0	0.64103E-02	655999.2	4194153.7	9.0	3.66	0.85	1.70	NO
L0011483	0	0.64103E-02	655999.1	4194155.5	9.0	3.66	0.85	1.70	NO
L0011484	0	0.64103E-02	655999.0	4194157.3	9.0	3.66	0.85	1.70	NO
L0011485	0	0.64103E-02	655998.9	4194159.1	9.0	3.66	0.85	1.70	NO
L0011486	0	0.64103E-02	655998.8	4194161.0	9.0	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE INIT.				INIT. URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0011487	0	0.64103E-02	655998.7	4194162.8	9.0	3.66	0.85	1.70	NO
L0011488	0	0.64103E-02	655998.6	4194164.6	9.0	3.66	0.85	1.70	NO
L0011489	0	0.64103E-02	655998.5	4194166.5	9.0	3.66	0.85	1.70	NO
L0011490	0	0.64103E-02	655998.4	4194168.3	9.0	3.66	0.85	1.70	NO
L0011491	0	0.64103E-02	655998.3	4194170.1	9.0	3.66	0.85	1.70	NO
L0011492	0	0.64103E-02	655998.2	4194171.9	9.0	3.66	0.85	1.70	NO
L0011493	0	0.64103E-02	655998.0	4194173.8	9.0	3.66	0.85	1.70	NO

L0011494	0	0.64103E-02	655997.9	4194175.6	9.0	3.66	0.85	1.70	NO
L0011495	0	0.64103E-02	655997.8	4194177.4	9.0	3.66	0.85	1.70	NO
L0011496	0	0.64103E-02	655997.7	4194179.2	9.0	3.66	0.85	1.70	NO
L0011497	0	0.64103E-02	655997.6	4194181.1	9.0	3.66	0.85	1.70	NO
L0011498	0	0.64103E-02	655997.5	4194182.9	9.0	3.66	0.85	1.70	NO
L0011499	0	0.64103E-02	655997.4	4194184.7	9.0	3.66	0.85	1.70	NO
L0011500	0	0.64103E-02	655997.3	4194186.5	9.0	3.66	0.85	1.70	NO
L0011501	0	0.64103E-02	655997.2	4194188.4	9.0	3.66	0.85	1.70	NO
L0011502	0	0.64103E-02	655997.1	4194190.2	9.0	3.66	0.85	1.70	NO
L0011503	0	0.64103E-02	655997.0	4194192.0	9.0	3.66	0.85	1.70	NO
L0011504	0	0.64103E-02	655996.9	4194193.8	9.0	3.66	0.85	1.70	NO
L0011505	0	0.64103E-02	655996.8	4194195.7	9.0	3.66	0.85	1.70	NO
L0011506	0	0.64103E-02	655996.7	4194197.5	9.0	3.66	0.85	1.70	NO
L0011507	0	0.64103E-02	655996.6	4194199.3	9.0	3.66	0.85	1.70	NO
L0011508	0	0.64103E-02	655996.5	4194201.1	9.0	3.66	0.85	1.70	NO
L0011509	0	0.64103E-02	655996.4	4194203.0	9.0	3.66	0.85	1.70	NO
L0011510	0	0.64103E-02	655996.2	4194204.8	9.0	3.66	0.85	1.70	NO
L0011511	0	0.64103E-02	655996.1	4194206.6	9.0	3.66	0.85	1.70	NO
L0011512	0	0.64103E-02	655996.0	4194208.4	9.0	3.66	0.85	1.70	NO
L0011513	0	0.64103E-02	655995.9	4194210.3	9.0	3.66	0.85	1.70	NO
L0011514	0	0.64103E-02	655995.8	4194212.1	9.0	3.66	0.85	1.70	NO
L0011515	0	0.64103E-02	655995.7	4194213.9	9.0	3.66	0.85	1.70	NO
L0011516	0	0.64103E-02	655995.6	4194215.7	9.0	3.66	0.85	1.70	NO
L0011517	0	0.64103E-02	655995.5	4194217.6	9.0	3.66	0.85	1.70	NO
L0011518	0	0.64103E-02	655995.4	4194219.4	9.0	3.66	0.85	1.70	NO
L0011519	0	0.64103E-02	655995.3	4194221.2	9.0	3.66	0.85	1.70	NO
L0011520	0	0.64103E-02	655995.2	4194223.1	9.0	3.66	0.85	1.70	NO
L0011521	0	0.64103E-02	655995.1	4194224.9	9.0	3.66	0.85	1.70	NO
L0011522	0	0.64103E-02	655995.0	4194226.7	9.0	3.66	0.85	1.70	NO
L0011523	0	0.64103E-02	655994.9	4194228.5	9.0	3.66	0.85	1.70	NO
L0011524	0	0.64103E-02	655994.8	4194230.4	9.0	3.66	0.85	1.70	NO
L0011525	0	0.64103E-02	655994.7	4194232.2	9.0	3.66	0.85	1.70	NO
L0011526	0	0.64103E-02	655994.6	4194234.0	9.0	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER		EMISSION RATE		BASE		RELEASE		INIT.		INIT.		URBAN		EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY				
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY				

L0011527	0	0.64103E-02	655994.5	4194235.8	9.0	3.66	0.85	1.70	NO						
L0011528	0	0.64103E-02	655994.3	4194237.7	9.0	3.66	0.85	1.70	NO						
L0011529	0	0.64103E-02	655994.2	4194239.5	8.9	3.66	0.85	1.70	NO						
L0011530	0	0.64103E-02	655994.1	4194241.3	8.9	3.66	0.85	1.70	NO						
L0011531	0	0.64103E-02	655994.0	4194243.1	8.9	3.66	0.85	1.70	NO						
L0011532	0	0.64103E-02	655993.9	4194245.0	8.9	3.66	0.85	1.70	NO						
L0011533	0	0.64103E-02	655993.8	4194246.8	8.9	3.66	0.85	1.70	NO						
L0011534	0	0.64103E-02	655993.7	4194248.6	8.9	3.66	0.85	1.70	NO						

L0011535	0	0.64103E-02	655993.6	4194250.4	8.9	3.66	0.85	1.70	NO
L0011536	0	0.64103E-02	655993.5	4194252.3	8.9	3.66	0.85	1.70	NO
L0011537	0	0.64103E-02	655993.4	4194254.1	8.9	3.66	0.85	1.70	NO
L0011538	0	0.64103E-02	655993.3	4194255.9	8.9	3.66	0.85	1.70	NO
L0011539	0	0.64103E-02	655993.2	4194257.7	8.9	3.66	0.85	1.70	NO
L0011540	0	0.64103E-02	655993.1	4194259.6	8.9	3.66	0.85	1.70	NO
L0011541	0	0.64103E-02	655993.0	4194261.4	8.9	3.66	0.85	1.70	NO
L0011542	0	0.64103E-02	655992.9	4194263.2	8.9	3.66	0.85	1.70	NO
L0011543	0	0.64103E-02	655992.8	4194265.0	8.9	3.66	0.85	1.70	NO
L0011544	0	0.64103E-02	655992.7	4194266.9	8.9	3.66	0.85	1.70	NO
L0011545	0	0.64103E-02	655992.5	4194268.7	8.9	3.66	0.85	1.70	NO
L0011546	0	0.64103E-02	655992.4	4194270.5	8.9	3.66	0.85	1.70	NO
L0011547	0	0.64103E-02	655992.3	4194272.3	8.9	3.66	0.85	1.70	NO
L0011548	0	0.64103E-02	655992.2	4194274.2	8.9	3.66	0.85	1.70	NO
L0011549	0	0.64103E-02	655992.1	4194276.0	8.9	3.66	0.85	1.70	NO
L0011550	0	0.64103E-02	655992.0	4194277.8	8.9	3.66	0.85	1.70	NO
L0011551	0	0.81967E-02	656325.0	4194005.2	9.5	3.66	0.85	1.70	NO
L0011552	0	0.81967E-02	656324.9	4194007.0	9.5	3.66	0.85	1.70	NO
L0011553	0	0.81967E-02	656324.8	4194008.8	9.5	3.66	0.85	1.70	NO
L0011554	0	0.81967E-02	656324.7	4194010.7	9.5	3.66	0.85	1.70	NO
L0011555	0	0.81967E-02	656324.6	4194012.5	9.5	3.66	0.85	1.70	NO
L0011556	0	0.81967E-02	656324.5	4194014.3	9.5	3.66	0.85	1.70	NO
L0011557	0	0.81967E-02	656324.5	4194016.1	9.5	3.66	0.85	1.70	NO
L0011558	0	0.81967E-02	656324.4	4194018.0	9.5	3.66	0.85	1.70	NO
L0011559	0	0.81967E-02	656324.3	4194019.8	9.5	3.66	0.85	1.70	NO
L0011560	0	0.81967E-02	656324.2	4194021.6	9.5	3.66	0.85	1.70	NO
L0011561	0	0.81967E-02	656324.1	4194023.4	9.5	3.66	0.85	1.70	NO
L0011562	0	0.81967E-02	656324.0	4194025.3	9.5	3.66	0.85	1.70	NO
L0011563	0	0.81967E-02	656324.0	4194027.1	9.5	3.66	0.85	1.70	NO
L0011564	0	0.81967E-02	656323.9	4194028.9	9.5	3.66	0.85	1.70	NO
L0011565	0	0.81967E-02	656323.8	4194030.8	9.5	3.66	0.85	1.70	NO
L0011566	0	0.81967E-02	656323.7	4194032.6	9.5	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE INIT. INIT. URBAN EMISSION RATE				SOURCE SCALAR VARY	
SOURCE ID	PART. CATS.	(GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	BY

L0011567	0	0.81967E-02	656323.6	4194034.4	9.5	3.66	0.85	1.70	NO
L0011568	0	0.81967E-02	656323.5	4194036.2	9.5	3.66	0.85	1.70	NO
L0011569	0	0.81967E-02	656323.5	4194038.1	9.5	3.66	0.85	1.70	NO
L0011570	0	0.81967E-02	656323.4	4194039.9	9.5	3.66	0.85	1.70	NO
L0011571	0	0.81967E-02	656323.3	4194041.7	9.5	3.66	0.85	1.70	NO
L0011572	0	0.81967E-02	656323.2	4194043.5	9.5	3.66	0.85	1.70	NO
L0011573	0	0.81967E-02	656323.1	4194045.4	9.5	3.66	0.85	1.70	NO
L0011574	0	0.81967E-02	656323.0	4194047.2	9.5	3.66	0.85	1.70	NO
L0011575	0	0.81967E-02	656322.9	4194049.0	9.5	3.66	0.85	1.70	NO

L0011576	0	0.81967E-02	656322.9	4194050.8	9.5	3.66	0.85	1.70	NO
L0011577	0	0.81967E-02	656322.8	4194052.7	9.5	3.66	0.85	1.70	NO
L0011578	0	0.81967E-02	656322.7	4194054.5	9.5	3.66	0.85	1.70	NO
L0011579	0	0.81967E-02	656322.6	4194056.3	9.5	3.66	0.85	1.70	NO
L0011580	0	0.81967E-02	656322.5	4194058.2	9.5	3.66	0.85	1.70	NO
L0011581	0	0.81967E-02	656322.4	4194060.0	9.5	3.66	0.85	1.70	NO
L0011582	0	0.81967E-02	656322.4	4194061.8	9.5	3.66	0.85	1.70	NO
L0011583	0	0.81967E-02	656322.3	4194063.6	9.5	3.66	0.85	1.70	NO
L0011584	0	0.81967E-02	656322.2	4194065.5	9.5	3.66	0.85	1.70	NO
L0011585	0	0.81967E-02	656322.1	4194067.3	9.5	3.66	0.85	1.70	NO
L0011586	0	0.81967E-02	656322.0	4194069.1	9.5	3.66	0.85	1.70	NO
L0011587	0	0.81967E-02	656321.9	4194070.9	9.5	3.66	0.85	1.70	NO
L0011588	0	0.81967E-02	656321.8	4194072.8	9.5	3.66	0.85	1.70	NO
L0011589	0	0.81967E-02	656321.8	4194074.6	9.5	3.66	0.85	1.70	NO
L0011590	0	0.81967E-02	656321.7	4194076.4	9.5	3.66	0.85	1.70	NO
L0011591	0	0.81967E-02	656321.6	4194078.3	9.5	3.66	0.85	1.70	NO
L0011592	0	0.81967E-02	656321.5	4194080.1	9.5	3.66	0.85	1.70	NO
L0011593	0	0.81967E-02	656321.4	4194081.9	9.4	3.66	0.85	1.70	NO
L0011594	0	0.81967E-02	656321.3	4194083.7	9.4	3.66	0.85	1.70	NO
L0011595	0	0.81967E-02	656321.3	4194085.6	9.4	3.66	0.85	1.70	NO
L0011596	0	0.81967E-02	656321.2	4194087.4	9.4	3.66	0.85	1.70	NO
L0011597	0	0.81967E-02	656321.1	4194089.2	9.4	3.66	0.85	1.70	NO
L0011598	0	0.81967E-02	656321.0	4194091.0	9.4	3.66	0.85	1.70	NO
L0011599	0	0.81967E-02	656320.9	4194092.9	9.4	3.66	0.85	1.70	NO
L0011600	0	0.81967E-02	656320.8	4194094.7	9.4	3.66	0.85	1.70	NO
L0011601	0	0.81967E-02	656320.7	4194096.5	9.4	3.66	0.85	1.70	NO
L0011602	0	0.81967E-02	656320.7	4194098.3	9.4	3.66	0.85	1.70	NO
L0011603	0	0.81967E-02	656320.6	4194100.2	9.4	3.66	0.85	1.70	NO
L0011604	0	0.81967E-02	656320.5	4194102.0	9.4	3.66	0.85	1.70	NO
L0011605	0	0.81967E-02	656320.4	4194103.8	9.4	3.66	0.85	1.70	NO
L0011606	0	0.81967E-02	656320.3	4194105.7	9.4	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER		EMISSION RATE		BASE		RELEASE		INIT.		INIT.		URBAN		EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY				
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)							BY

L0011607	0	0.81967E-02	656320.2	4194107.5	9.4	3.66	0.85	1.70	NO						
L0011608	0	0.81967E-02	656320.2	4194109.3	9.4	3.66	0.85	1.70	NO						
L0011609	0	0.81967E-02	656320.1	4194111.1	9.4	3.66	0.85	1.70	NO						
L0011610	0	0.81967E-02	656320.0	4194113.0	9.4	3.66	0.85	1.70	NO						
L0011611	0	0.81967E-02	656319.9	4194114.8	9.4	3.66	0.85	1.70	NO						
L0011612	0	0.81967E-02	656319.8	4194116.6	9.4	3.66	0.85	1.70	NO						
L0011613	0	0.81967E-02	656319.7	4194118.4	9.4	3.66	0.85	1.70	NO						
L0011614	0	0.81967E-02	656319.6	4194120.3	9.4	3.66	0.85	1.70	NO						
L0011615	0	0.81967E-02	656319.6	4194122.1	9.4	3.66	0.85	1.70	NO						
L0011616	0	0.81967E-02	656319.5	4194123.9	9.4	3.66	0.85	1.70	NO						

L0011617	0	0.81967E-02	656319.4	4194125.8	9.4	3.66	0.85	1.70	NO
L0011618	0	0.81967E-02	656319.3	4194127.6	9.4	3.66	0.85	1.70	NO
L0011619	0	0.81967E-02	656319.2	4194129.4	9.4	3.66	0.85	1.70	NO
L0011620	0	0.81967E-02	656319.1	4194131.2	9.4	3.66	0.85	1.70	NO
L0011621	0	0.81967E-02	656319.1	4194133.1	9.4	3.66	0.85	1.70	NO
L0011622	0	0.81967E-02	656319.0	4194134.9	9.4	3.66	0.85	1.70	NO
L0011623	0	0.81967E-02	656318.9	4194136.7	9.4	3.66	0.85	1.70	NO
L0011624	0	0.81967E-02	656318.8	4194138.5	9.4	3.66	0.85	1.70	NO
L0011625	0	0.81967E-02	656318.7	4194140.4	9.4	3.66	0.85	1.70	NO
L0011626	0	0.81967E-02	656318.6	4194142.2	9.4	3.66	0.85	1.70	NO
L0011627	0	0.81967E-02	656318.5	4194144.0	9.4	3.66	0.85	1.70	NO
L0011628	0	0.81967E-02	656318.5	4194145.8	9.4	3.66	0.85	1.70	NO
L0011629	0	0.81967E-02	656318.4	4194147.7	9.4	3.66	0.85	1.70	NO
L0011630	0	0.81967E-02	656318.3	4194149.5	9.4	3.66	0.85	1.70	NO
L0011631	0	0.81967E-02	656318.2	4194151.3	9.4	3.66	0.85	1.70	NO
L0011632	0	0.81967E-02	656318.1	4194153.2	9.4	3.66	0.85	1.70	NO
L0011633	0	0.81967E-02	656318.0	4194155.0	9.4	3.66	0.85	1.70	NO
L0011634	0	0.81967E-02	656318.0	4194156.8	9.4	3.66	0.85	1.70	NO
L0011635	0	0.81967E-02	656317.9	4194158.6	9.4	3.66	0.85	1.70	NO
L0011636	0	0.81967E-02	656317.8	4194160.5	9.4	3.66	0.85	1.70	NO
L0011637	0	0.81967E-02	656317.7	4194162.3	9.4	3.66	0.85	1.70	NO
L0011638	0	0.81967E-02	656317.6	4194164.1	9.4	3.66	0.85	1.70	NO
L0011639	0	0.81967E-02	656317.5	4194165.9	9.4	3.66	0.85	1.70	NO
L0011640	0	0.81967E-02	656317.4	4194167.8	9.4	3.66	0.85	1.70	NO
L0011641	0	0.81967E-02	656317.4	4194169.6	9.4	3.66	0.85	1.70	NO
L0011642	0	0.81967E-02	656317.3	4194171.4	9.4	3.66	0.85	1.70	NO
L0011643	0	0.81967E-02	656317.2	4194173.2	9.4	3.66	0.85	1.70	NO
L0011644	0	0.81967E-02	656317.1	4194175.1	9.4	3.66	0.85	1.70	NO
L0011645	0	0.81967E-02	656317.0	4194176.9	9.4	3.66	0.85	1.70	NO
L0011646	0	0.81967E-02	656316.9	4194178.7	9.4	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE		BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0011647	0	0.81967E-02	656316.9	4194180.6	9.4	3.66	0.85	1.70	NO
L0011648	0	0.81967E-02	656316.8	4194182.4	9.4	3.66	0.85	1.70	NO
L0011649	0	0.81967E-02	656316.7	4194184.2	9.4	3.66	0.85	1.70	NO
L0011650	0	0.81967E-02	656316.6	4194186.0	9.4	3.66	0.85	1.70	NO
L0011651	0	0.81967E-02	656316.5	4194187.9	9.4	3.66	0.85	1.70	NO
L0011652	0	0.81967E-02	656316.4	4194189.7	9.4	3.66	0.85	1.70	NO
L0011653	0	0.81967E-02	656316.3	4194191.5	9.4	3.66	0.85	1.70	NO
L0011654	0	0.81967E-02	656316.3	4194193.3	9.4	3.66	0.85	1.70	NO
L0011655	0	0.81967E-02	656316.2	4194195.2	9.4	3.66	0.85	1.70	NO
L0011656	0	0.81967E-02	656316.1	4194197.0	9.4	3.66	0.85	1.70	NO
L0011657	0	0.81967E-02	656316.0	4194198.8	9.4	3.66	0.85	1.70	NO

L0011658	0	0.81967E-02	656315.9	4194200.7	9.4	3.66	0.85	1.70	NO
L0011659	0	0.81967E-02	656315.8	4194202.5	9.4	3.66	0.85	1.70	NO
L0011660	0	0.81967E-02	656315.8	4194204.3	9.4	3.66	0.85	1.70	NO
L0011661	0	0.81967E-02	656315.7	4194206.1	9.4	3.66	0.85	1.70	NO
L0011662	0	0.81967E-02	656315.6	4194208.0	9.4	3.66	0.85	1.70	NO
L0011663	0	0.81967E-02	656315.5	4194209.8	9.4	3.66	0.85	1.70	NO
L0011664	0	0.81967E-02	656315.4	4194211.6	9.4	3.66	0.85	1.70	NO
L0011665	0	0.81967E-02	656315.3	4194213.4	9.4	3.66	0.85	1.70	NO
L0011666	0	0.81967E-02	656315.2	4194215.3	9.3	3.66	0.85	1.70	NO
L0011667	0	0.81967E-02	656315.2	4194217.1	9.3	3.66	0.85	1.70	NO
L0011668	0	0.81967E-02	656315.1	4194218.9	9.3	3.66	0.85	1.70	NO
L0011669	0	0.81967E-02	656315.0	4194220.7	9.3	3.66	0.85	1.70	NO
L0011670	0	0.81967E-02	656314.9	4194222.6	9.3	3.66	0.85	1.70	NO
L0011671	0	0.81967E-02	656314.8	4194224.4	9.3	3.66	0.85	1.70	NO
L0011672	0	0.81967E-02	656314.7	4194226.2	9.3	3.66	0.85	1.70	NO
L0011673	0	0.14706E-01	656157.4	4193993.0	9.2	3.66	0.85	1.70	NO
L0011674	0	0.14706E-01	656157.5	4193991.2	9.2	3.66	0.85	1.70	NO
L0011675	0	0.14706E-01	656157.5	4193989.3	9.2	3.66	0.85	1.70	NO
L0011676	0	0.14706E-01	656157.5	4193987.5	9.2	3.66	0.85	1.70	NO
L0011677	0	0.14706E-01	656157.6	4193985.7	9.2	3.66	0.85	1.70	NO
L0011678	0	0.14706E-01	656157.6	4193983.9	9.2	3.66	0.85	1.70	NO
L0011679	0	0.14706E-01	656157.6	4193982.0	9.2	3.66	0.85	1.70	NO
L0011680	0	0.14706E-01	656157.7	4193980.2	9.2	3.66	0.85	1.70	NO
L0011681	0	0.14706E-01	656157.7	4193978.4	9.2	3.66	0.85	1.70	NO
L0011682	0	0.14706E-01	656157.7	4193976.5	9.2	3.66	0.85	1.70	NO
L0011683	0	0.14706E-01	656157.8	4193974.7	9.2	3.66	0.85	1.70	NO
L0011684	0	0.14706E-01	656157.8	4193972.9	9.2	3.66	0.85	1.70	NO
L0011685	0	0.14706E-01	656157.8	4193971.1	9.2	3.66	0.85	1.70	NO
L0011686	0	0.14706E-01	656157.8	4193969.2	9.2	3.66	0.85	1.70	NO

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*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE INIT.			INIT. URBAN EMISSION RATE		
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0011687	0	0.14706E-01	656157.9	4193967.4	9.2	3.66	0.85	1.70
L0011688	0	0.14706E-01	656157.9	4193965.6	9.2	3.66	0.85	1.70
L0011689	0	0.14706E-01	656157.9	4193963.8	9.2	3.66	0.85	1.70
L0011690	0	0.14706E-01	656158.0	4193961.9	9.2	3.66	0.85	1.70
L0011691	0	0.14706E-01	656158.0	4193960.1	9.2	3.66	0.85	1.70
L0011692	0	0.14706E-01	656158.0	4193958.3	9.2	3.66	0.85	1.70
L0011693	0	0.14706E-01	656158.1	4193956.4	9.2	3.66	0.85	1.70
L0011694	0	0.14706E-01	656158.1	4193954.6	9.2	3.66	0.85	1.70
L0011695	0	0.14706E-01	656158.1	4193952.8	9.2	3.66	0.85	1.70
L0011696	0	0.14706E-01	656158.2	4193950.9	9.2	3.66	0.85	1.70
L0011697	0	0.14706E-01	656158.2	4193949.1	9.2	3.66	0.85	1.70
L0011698	0	0.14706E-01	656158.2	4193947.3	9.2	3.66	0.85	1.70

L0011699	0	0.14706E-01	656158.2	4193945.5	9.2	3.66	0.85	1.70	NO
L0011700	0	0.14706E-01	656158.3	4193943.6	9.2	3.66	0.85	1.70	NO
L0011701	0	0.14706E-01	656158.3	4193941.8	9.2	3.66	0.85	1.70	NO
L0011702	0	0.14706E-01	656158.3	4193940.0	9.2	3.66	0.85	1.70	NO
L0011703	0	0.14706E-01	656158.4	4193938.2	9.2	3.66	0.85	1.70	NO
L0011704	0	0.14706E-01	656158.4	4193936.3	9.2	3.66	0.85	1.70	NO
L0011705	0	0.14706E-01	656158.4	4193934.5	9.2	3.66	0.85	1.70	NO
L0011706	0	0.14706E-01	656158.5	4193932.7	9.2	3.66	0.85	1.70	NO
L0011707	0	0.14706E-01	656158.5	4193930.8	9.2	3.66	0.85	1.70	NO
L0011708	0	0.14706E-01	656158.5	4193929.0	9.2	3.66	0.85	1.70	NO
L0011709	0	0.14706E-01	656158.5	4193927.2	9.2	3.66	0.85	1.70	NO
L0011710	0	0.14706E-01	656158.6	4193925.4	9.2	3.66	0.85	1.70	NO
L0011711	0	0.14706E-01	656158.6	4193923.5	9.2	3.66	0.85	1.70	NO
L0011712	0	0.14706E-01	656158.6	4193921.7	9.2	3.66	0.85	1.70	NO
L0011713	0	0.14706E-01	656158.7	4193919.9	9.2	3.66	0.85	1.70	NO
L0011714	0	0.14706E-01	656158.7	4193918.0	9.2	3.66	0.85	1.70	NO
L0011715	0	0.14706E-01	656158.7	4193916.2	9.2	3.66	0.85	1.70	NO
L0011716	0	0.14706E-01	656158.8	4193914.4	9.2	3.66	0.85	1.70	NO
L0011717	0	0.14706E-01	656158.8	4193912.6	9.2	3.66	0.85	1.70	NO
L0011718	0	0.14706E-01	656158.8	4193910.7	9.2	3.66	0.85	1.70	NO
L0011719	0	0.14706E-01	656158.9	4193908.9	9.2	3.66	0.85	1.70	NO
L0011720	0	0.14706E-01	656158.9	4193907.1	9.2	3.66	0.85	1.70	NO
L0011721	0	0.14706E-01	656158.9	4193905.2	9.2	3.66	0.85	1.70	NO
L0011722	0	0.14706E-01	656158.9	4193903.4	9.2	3.66	0.85	1.70	NO
L0011723	0	0.14706E-01	656159.0	4193901.6	9.2	3.66	0.85	1.70	NO
L0011724	0	0.14706E-01	656159.0	4193899.8	9.2	3.66	0.85	1.70	NO
L0011725	0	0.14706E-01	656159.0	4193897.9	9.2	3.66	0.85	1.70	NO
L0011726	0	0.14706E-01	656159.1	4193896.1	9.2	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE					BASE RELEASE		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY

L0011727	0	0.14706E-01	656159.1	4193894.3	9.2	3.66	0.85	1.70	NO	
L0011728	0	0.14706E-01	656159.1	4193892.4	9.2	3.66	0.85	1.70	NO	
L0011729	0	0.14706E-01	656159.2	4193890.6	9.2	3.66	0.85	1.70	NO	
L0011730	0	0.14706E-01	656159.2	4193888.8	9.2	3.66	0.85	1.70	NO	
L0011731	0	0.14706E-01	656159.2	4193887.0	9.2	3.66	0.85	1.70	NO	
L0011732	0	0.14706E-01	656159.2	4193885.1	9.2	3.66	0.85	1.70	NO	
L0011733	0	0.14706E-01	656159.3	4193883.3	9.2	3.66	0.85	1.70	NO	
L0011734	0	0.14706E-01	656159.3	4193881.5	9.2	3.66	0.85	1.70	NO	
L0011735	0	0.14706E-01	656159.3	4193879.6	9.2	3.66	0.85	1.70	NO	
L0011736	0	0.14706E-01	656159.4	4193877.8	9.2	3.66	0.85	1.70	NO	
L0011737	0	0.14706E-01	656159.4	4193876.0	9.2	3.66	0.85	1.70	NO	
L0011738	0	0.14706E-01	656159.4	4193874.2	9.2	3.66	0.85	1.70	NO	
L0011739	0	0.14706E-01	656159.5	4193872.3	9.2	3.66	0.85	1.70	NO	

L0011740	0	0.14706E-01	656159.5	4193870.5	9.2	3.66	0.85	1.70	NO
L0011741	0	0.16393E-01	655847.1	4193988.9	8.7	3.66	0.85	1.70	NO
L0011742	0	0.16393E-01	655847.2	4193987.0	8.7	3.66	0.85	1.70	NO
L0011743	0	0.16393E-01	655847.2	4193985.2	8.7	3.66	0.85	1.70	NO
L0011744	0	0.16393E-01	655847.2	4193983.4	8.7	3.66	0.85	1.70	NO
L0011745	0	0.16393E-01	655847.3	4193981.6	8.7	3.66	0.85	1.70	NO
L0011746	0	0.16393E-01	655847.3	4193979.7	8.7	3.66	0.85	1.70	NO
L0011747	0	0.16393E-01	655847.3	4193977.9	8.7	3.66	0.85	1.70	NO
L0011748	0	0.16393E-01	655847.4	4193976.1	8.7	3.66	0.85	1.70	NO
L0011749	0	0.16393E-01	655847.4	4193974.2	8.7	3.66	0.85	1.70	NO
L0011750	0	0.16393E-01	655847.4	4193972.4	8.7	3.66	0.85	1.70	NO
L0011751	0	0.16393E-01	655847.5	4193970.6	8.7	3.66	0.85	1.70	NO
L0011752	0	0.16393E-01	655847.5	4193968.8	8.7	3.66	0.85	1.70	NO
L0011753	0	0.16393E-01	655847.5	4193966.9	8.7	3.66	0.85	1.70	NO
L0011754	0	0.16393E-01	655847.6	4193965.1	8.7	3.66	0.85	1.70	NO
L0011755	0	0.16393E-01	655847.6	4193963.3	8.7	3.66	0.85	1.70	NO
L0011756	0	0.16393E-01	655847.6	4193961.4	8.7	3.66	0.85	1.70	NO
L0011757	0	0.16393E-01	655847.7	4193959.6	8.7	3.66	0.85	1.70	NO
L0011758	0	0.16393E-01	655847.7	4193957.8	8.7	3.66	0.85	1.70	NO
L0011759	0	0.16393E-01	655847.7	4193956.0	8.7	3.66	0.85	1.70	NO
L0011760	0	0.16393E-01	655847.8	4193954.1	8.7	3.66	0.85	1.70	NO
L0011761	0	0.16393E-01	655847.8	4193952.3	8.7	3.66	0.85	1.70	NO
L0011762	0	0.16393E-01	655847.8	4193950.5	8.7	3.66	0.85	1.70	NO
L0011763	0	0.16393E-01	655847.9	4193948.6	8.7	3.66	0.85	1.70	NO
L0011764	0	0.16393E-01	655847.9	4193946.8	8.7	3.66	0.85	1.70	NO
L0011765	0	0.16393E-01	655847.9	4193945.0	8.7	3.66	0.85	1.70	NO
L0011766	0	0.16393E-01	655848.0	4193943.2	8.7	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	BASE X (METERS)	RELEASE Y (METERS)	INIT. ELEV. (METERS)	INIT. HEIGHT (METERS)	SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE SCALAR VARY BY
L0011767	0	0.16393E-01	655848.0	4193941.3	8.7	3.66	0.85	1.70	NO
L0011768	0	0.16393E-01	655848.0	4193939.5	8.7	3.66	0.85	1.70	NO
L0011769	0	0.16393E-01	655848.1	4193937.7	8.7	3.66	0.85	1.70	NO
L0011770	0	0.16393E-01	655848.1	4193935.8	8.7	3.66	0.85	1.70	NO
L0011771	0	0.16393E-01	655848.1	4193934.0	8.7	3.66	0.85	1.70	NO
L0011772	0	0.16393E-01	655848.2	4193932.2	8.7	3.66	0.85	1.70	NO
L0011773	0	0.16393E-01	655848.2	4193930.4	8.7	3.66	0.85	1.70	NO
L0011774	0	0.16393E-01	655848.2	4193928.5	8.7	3.66	0.85	1.70	NO
L0011775	0	0.16393E-01	655848.3	4193926.7	8.7	3.66	0.85	1.70	NO
L0011776	0	0.16393E-01	655848.3	4193924.9	8.7	3.66	0.85	1.70	NO
L0011777	0	0.16393E-01	655848.3	4193923.0	8.7	3.66	0.85	1.70	NO
L0011778	0	0.16393E-01	655848.4	4193921.2	8.7	3.66	0.85	1.70	NO
L0011779	0	0.16393E-01	655848.4	4193919.4	8.7	3.66	0.85	1.70	NO
L0011780	0	0.16393E-01	655848.4	4193917.6	8.7	3.66	0.85	1.70	NO

L0011781	0	0.16393E-01	655848.5	4193915.7	8.7	3.66	0.85	1.70	NO
L0011782	0	0.16393E-01	655848.5	4193913.9	8.7	3.66	0.85	1.70	NO
L0011783	0	0.16393E-01	655848.5	4193912.1	8.7	3.66	0.85	1.70	NO
L0011784	0	0.16393E-01	655848.6	4193910.2	8.7	3.66	0.85	1.70	NO
L0011785	0	0.16393E-01	655848.6	4193908.4	8.7	3.66	0.85	1.70	NO
L0011786	0	0.16393E-01	655848.6	4193906.6	8.7	3.66	0.85	1.70	NO
L0011787	0	0.16393E-01	655848.7	4193904.8	8.7	3.66	0.85	1.70	NO
L0011788	0	0.16393E-01	655848.7	4193902.9	8.7	3.66	0.85	1.70	NO
L0011789	0	0.16393E-01	655848.7	4193901.1	8.7	3.66	0.85	1.70	NO
L0011790	0	0.16393E-01	655848.8	4193899.3	8.7	3.66	0.85	1.70	NO
L0011791	0	0.16393E-01	655848.8	4193897.4	8.7	3.66	0.85	1.70	NO
L0011792	0	0.16393E-01	655848.8	4193895.6	8.7	3.66	0.85	1.70	NO
L0011793	0	0.16393E-01	655848.9	4193893.8	8.7	3.66	0.85	1.70	NO
L0011794	0	0.16393E-01	655848.9	4193892.0	8.7	3.66	0.85	1.70	NO
L0011795	0	0.16393E-01	655848.9	4193890.1	8.7	3.66	0.85	1.70	NO
L0011796	0	0.16393E-01	655849.0	4193888.3	8.7	3.66	0.85	1.70	NO
L0011797	0	0.16393E-01	655849.0	4193886.5	8.7	3.66	0.85	1.70	NO
L0011798	0	0.16393E-01	655849.0	4193884.6	8.7	3.66	0.85	1.70	NO
L0011799	0	0.16393E-01	655849.1	4193882.8	8.7	3.66	0.85	1.70	NO
L0011800	0	0.16393E-01	655849.1	4193881.0	8.7	3.66	0.85	1.70	NO
L0011801	0	0.16393E-01	655849.1	4193879.2	8.7	3.66	0.85	1.70	NO
L0011802	0	0.18182E-01	655561.6	4193980.6	8.3	3.66	0.85	1.70	NO
L0011803	0	0.18182E-01	655561.6	4193978.8	8.3	3.66	0.85	1.70	NO
L0011804	0	0.18182E-01	655561.6	4193976.9	8.3	3.66	0.85	1.70	NO
L0011805	0	0.18182E-01	655561.6	4193975.1	8.3	3.66	0.85	1.70	NO
L0011806	0	0.18182E-01	655561.6	4193973.3	8.3	3.66	0.85	1.70	NO

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*** AERMET - VERSION 18081 *** *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER		EMISSION RATE		BASE		RELEASE		INIT.	INIT.	URBAN		EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY		
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY			

L0011807	0	0.18182E-01	655561.6	4193971.4	8.3	3.66	0.85	1.70	NO				
L0011808	0	0.18182E-01	655561.6	4193969.6	8.3	3.66	0.85	1.70	NO				
L0011809	0	0.18182E-01	655561.6	4193967.8	8.3	3.66	0.85	1.70	NO				
L0011810	0	0.18182E-01	655561.6	4193966.0	8.3	3.66	0.85	1.70	NO				
L0011811	0	0.18182E-01	655561.6	4193964.1	8.3	3.66	0.85	1.70	NO				
L0011812	0	0.18182E-01	655561.6	4193962.3	8.3	3.66	0.85	1.70	NO				
L0011813	0	0.18182E-01	655561.6	4193960.5	8.3	3.66	0.85	1.70	NO				
L0011814	0	0.18182E-01	655561.6	4193958.6	8.3	3.66	0.85	1.70	NO				
L0011815	0	0.18182E-01	655561.6	4193956.8	8.3	3.66	0.85	1.70	NO				
L0011816	0	0.18182E-01	655561.6	4193955.0	8.3	3.66	0.85	1.70	NO				
L0011817	0	0.18182E-01	655561.6	4193953.2	8.3	3.66	0.85	1.70	NO				
L0011818	0	0.18182E-01	655561.6	4193951.3	8.3	3.66	0.85	1.70	NO				
L0011819	0	0.18182E-01	655561.6	4193949.5	8.3	3.66	0.85	1.70	NO				
L0011820	0	0.18182E-01	655561.6	4193947.7	8.3	3.66	0.85	1.70	NO				
L0011821	0	0.18182E-01	655561.6	4193945.8	8.3	3.66	0.85	1.70	NO				

L0011822	0	0.18182E-01	655561.6	4193944.0	8.3	3.66	0.85	1.70	NO
L0011823	0	0.18182E-01	655561.6	4193942.2	8.2	3.66	0.85	1.70	NO
L0011824	0	0.18182E-01	655561.6	4193940.4	8.2	3.66	0.85	1.70	NO
L0011825	0	0.18182E-01	655561.6	4193938.5	8.2	3.66	0.85	1.70	NO
L0011826	0	0.18182E-01	655561.6	4193936.7	8.2	3.66	0.85	1.70	NO
L0011827	0	0.18182E-01	655561.6	4193934.9	8.2	3.66	0.85	1.70	NO
L0011828	0	0.18182E-01	655561.6	4193933.0	8.2	3.66	0.85	1.70	NO
L0011829	0	0.18182E-01	655561.6	4193931.2	8.2	3.66	0.85	1.70	NO
L0011830	0	0.18182E-01	655561.6	4193929.4	8.2	3.66	0.85	1.70	NO
L0011831	0	0.18182E-01	655561.6	4193927.6	8.2	3.66	0.85	1.70	NO
L0011832	0	0.18182E-01	655561.6	4193925.7	8.2	3.66	0.85	1.70	NO
L0011833	0	0.18182E-01	655561.6	4193923.9	8.2	3.66	0.85	1.70	NO
L0011834	0	0.18182E-01	655561.6	4193922.1	8.2	3.66	0.85	1.70	NO
L0011835	0	0.18182E-01	655561.6	4193920.2	8.2	3.66	0.85	1.70	NO
L0011836	0	0.18182E-01	655561.6	4193918.4	8.2	3.66	0.85	1.70	NO
L0011837	0	0.18182E-01	655561.6	4193916.6	8.2	3.66	0.85	1.70	NO
L0011838	0	0.18182E-01	655561.6	4193914.8	8.2	3.66	0.85	1.70	NO
L0011839	0	0.18182E-01	655561.6	4193912.9	8.2	3.66	0.85	1.70	NO
L0011840	0	0.18182E-01	655561.6	4193911.1	8.2	3.66	0.85	1.70	NO
L0011841	0	0.18182E-01	655561.6	4193909.3	8.2	3.66	0.85	1.70	NO
L0011842	0	0.18182E-01	655561.6	4193907.4	8.2	3.66	0.85	1.70	NO
L0011843	0	0.18182E-01	655561.6	4193905.6	8.2	3.66	0.85	1.70	NO
L0011844	0	0.18182E-01	655561.6	4193903.8	8.2	3.66	0.85	1.70	NO
L0011845	0	0.18182E-01	655561.6	4193902.0	8.2	3.66	0.85	1.70	NO
L0011846	0	0.18182E-01	655561.6	4193900.1	8.2	3.66	0.85	1.70	NO

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*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	BASE X (METERS)	RELEASE Y (METERS)	INIT. ELEV. (METERS)	INIT. HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION SCALAR	RATE VARY BY

L0011847	0	0.18182E-01	655561.6	4193898.3	8.2	3.66	0.85	1.70	NO		
L0011848	0	0.18182E-01	655561.6	4193896.5	8.2	3.66	0.85	1.70	NO		
L0011849	0	0.18182E-01	655561.6	4193894.6	8.2	3.66	0.85	1.70	NO		
L0011850	0	0.18182E-01	655561.6	4193892.8	8.2	3.66	0.85	1.70	NO		
L0011851	0	0.18182E-01	655561.6	4193891.0	8.2	3.66	0.85	1.70	NO		
L0011852	0	0.18182E-01	655561.6	4193889.2	8.2	3.66	0.85	1.70	NO		
L0011853	0	0.18182E-01	655561.6	4193887.3	8.2	3.66	0.85	1.70	NO		
L0011854	0	0.18182E-01	655561.6	4193885.5	8.2	3.66	0.85	1.70	NO		
L0011855	0	0.18182E-01	655561.6	4193883.7	8.2	3.66	0.85	1.70	NO		
L0011856	0	0.18182E-01	655561.6	4193881.8	8.2	3.66	0.85	1.70	NO		
L0011857	0	0.19608E-01	655176.8	4193974.4	7.4	3.66	0.85	1.70	NO		
L0011858	0	0.19608E-01	655176.8	4193972.6	7.4	3.66	0.85	1.70	NO		
L0011859	0	0.19608E-01	655176.8	4193970.7	7.4	3.66	0.85	1.70	NO		
L0011860	0	0.19608E-01	655176.8	4193968.9	7.4	3.66	0.85	1.70	NO		
L0011861	0	0.19608E-01	655176.8	4193967.1	7.4	3.66	0.85	1.70	NO		
L0011862	0	0.19608E-01	655176.8	4193965.2	7.4	3.66	0.85	1.70	NO		

L0011863	0	0.19608E-01	655176.8	4193963.4	7.4	3.66	0.85	1.70	NO
L0011864	0	0.19608E-01	655176.8	4193961.6	7.4	3.66	0.85	1.70	NO
L0011865	0	0.19608E-01	655176.8	4193959.8	7.4	3.66	0.85	1.70	NO
L0011866	0	0.19608E-01	655176.8	4193957.9	7.4	3.66	0.85	1.70	NO
L0011867	0	0.19608E-01	655176.8	4193956.1	7.4	3.66	0.85	1.70	NO
L0011868	0	0.19608E-01	655176.8	4193954.3	7.4	3.66	0.85	1.70	NO
L0011869	0	0.19608E-01	655176.8	4193952.4	7.4	3.66	0.85	1.70	NO
L0011870	0	0.19608E-01	655176.8	4193950.6	7.4	3.66	0.85	1.70	NO
L0011871	0	0.19608E-01	655176.8	4193948.8	7.4	3.66	0.85	1.70	NO
L0011872	0	0.19608E-01	655176.8	4193947.0	7.4	3.66	0.85	1.70	NO
L0011873	0	0.19608E-01	655176.8	4193945.1	7.4	3.66	0.85	1.70	NO
L0011874	0	0.19608E-01	655176.8	4193943.3	7.4	3.66	0.85	1.70	NO
L0011875	0	0.19608E-01	655176.8	4193941.5	7.3	3.66	0.85	1.70	NO
L0011876	0	0.19608E-01	655176.8	4193939.6	7.3	3.66	0.85	1.70	NO
L0011877	0	0.19608E-01	655176.8	4193937.8	7.3	3.66	0.85	1.70	NO
L0011878	0	0.19608E-01	655176.8	4193936.0	7.3	3.66	0.85	1.70	NO
L0011879	0	0.19608E-01	655176.8	4193934.2	7.3	3.66	0.85	1.70	NO
L0011880	0	0.19608E-01	655176.8	4193932.3	7.3	3.66	0.85	1.70	NO
L0011881	0	0.19608E-01	655176.8	4193930.5	7.3	3.66	0.85	1.70	NO
L0011882	0	0.19608E-01	655176.8	4193928.7	7.3	3.66	0.85	1.70	NO
L0011883	0	0.19608E-01	655176.8	4193926.8	7.3	3.66	0.85	1.70	NO
L0011884	0	0.19608E-01	655176.8	4193925.0	7.3	3.66	0.85	1.70	NO
L0011885	0	0.19608E-01	655176.8	4193923.2	7.3	3.66	0.85	1.70	NO
L0011886	0	0.19608E-01	655176.8	4193921.4	7.3	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 ***

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*** AERMET - VERSION 18081 ***

12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE		RELEASE	INIT.	INIT.	URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0011887	0	0.19608E-01	655176.8	4193919.5	7.3	3.66	0.85	1.70	NO
L0011888	0	0.19608E-01	655176.8	4193917.7	7.3	3.66	0.85	1.70	NO
L0011889	0	0.19608E-01	655176.8	4193915.9	7.3	3.66	0.85	1.70	NO
L0011890	0	0.19608E-01	655176.8	4193914.0	7.3	3.66	0.85	1.70	NO
L0011891	0	0.19608E-01	655176.8	4193912.2	7.3	3.66	0.85	1.70	NO
L0011892	0	0.19608E-01	655176.8	4193910.4	7.3	3.66	0.85	1.70	NO
L0011893	0	0.19608E-01	655176.8	4193908.5	7.3	3.66	0.85	1.70	NO
L0011894	0	0.19608E-01	655176.8	4193906.7	7.3	3.66	0.85	1.70	NO
L0011895	0	0.19608E-01	655176.8	4193904.9	7.3	3.66	0.85	1.70	NO
L0011896	0	0.19608E-01	655176.8	4193903.1	7.3	3.66	0.85	1.70	NO
L0011897	0	0.19608E-01	655176.8	4193901.2	7.3	3.66	0.85	1.70	NO
L0011898	0	0.19608E-01	655176.8	4193899.4	7.3	3.66	0.85	1.70	NO
L0011899	0	0.19608E-01	655176.8	4193897.6	7.2	3.66	0.85	1.70	NO
L0011900	0	0.19608E-01	655176.8	4193895.7	7.2	3.66	0.85	1.70	NO
L0011901	0	0.19608E-01	655176.8	4193893.9	7.2	3.66	0.85	1.70	NO
L0011902	0	0.19608E-01	655176.8	4193892.1	7.2	3.66	0.85	1.70	NO
L0011903	0	0.19608E-01	655176.8	4193890.3	7.2	3.66	0.85	1.70	NO

L0011904	0	0.19608E-01	655176.8	4193888.4	7.2	3.66	0.85	1.70	NO
L0011905	0	0.19608E-01	655176.8	4193886.6	7.2	3.66	0.85	1.70	NO
L0011906	0	0.19608E-01	655176.8	4193884.8	7.2	3.66	0.85	1.70	NO
L0011907	0	0.19608E-01	655176.8	4193882.9	7.2	3.66	0.85	1.70	NO
L0011908	0	0.40816E-02	654430.8	4193965.4	8.3	3.66	0.85	1.70	NO
L0011909	0	0.40816E-02	654429.1	4193966.0	8.3	3.66	0.85	1.70	NO
L0011910	0	0.40816E-02	654427.3	4193966.6	8.3	3.66	0.85	1.70	NO
L0011911	0	0.40816E-02	654425.6	4193967.2	8.3	3.66	0.85	1.70	NO
L0011912	0	0.40816E-02	654423.9	4193967.9	8.3	3.66	0.85	1.70	NO
L0011913	0	0.40816E-02	654422.2	4193968.5	8.3	3.66	0.85	1.70	NO
L0011914	0	0.40816E-02	654420.5	4193969.1	8.3	3.66	0.85	1.70	NO
L0011915	0	0.40816E-02	654418.8	4193969.7	8.3	3.66	0.85	1.70	NO
L0011916	0	0.40816E-02	654417.0	4193970.3	8.2	3.66	0.85	1.70	NO
L0011917	0	0.40816E-02	654415.3	4193971.0	8.2	3.66	0.85	1.70	NO
L0011918	0	0.40816E-02	654413.6	4193971.6	8.2	3.66	0.85	1.70	NO
L0011919	0	0.40816E-02	654411.9	4193972.2	8.2	3.66	0.85	1.70	NO
L0011920	0	0.40816E-02	654410.2	4193972.8	8.2	3.66	0.85	1.70	NO
L0011921	0	0.40816E-02	654408.4	4193973.5	8.2	3.66	0.85	1.70	NO
L0011922	0	0.40816E-02	654406.7	4193974.1	8.2	3.66	0.85	1.70	NO
L0011923	0	0.40816E-02	654405.0	4193974.7	8.2	3.66	0.85	1.70	NO
L0011924	0	0.40816E-02	654403.3	4193975.3	8.2	3.66	0.85	1.70	NO
L0011925	0	0.40816E-02	654401.6	4193975.9	8.2	3.66	0.85	1.70	NO
L0011926	0	0.40816E-02	654399.8	4193976.6	8.2	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE					BASE RELEASE INIT.				INIT. URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY

L0011927	0	0.40816E-02	654398.1	4193977.2	8.1	3.66	0.85	1.70	NO	
L0011928	0	0.40816E-02	654396.4	4193977.8	8.1	3.66	0.85	1.70	NO	
L0011929	0	0.40816E-02	654394.7	4193978.4	8.1	3.66	0.85	1.70	NO	
L0011930	0	0.40816E-02	654393.0	4193979.1	8.1	3.66	0.85	1.70	NO	
L0011931	0	0.40816E-02	654391.2	4193979.7	8.1	3.66	0.85	1.70	NO	
L0011932	0	0.40816E-02	654389.5	4193980.3	8.1	3.66	0.85	1.70	NO	
L0011933	0	0.40816E-02	654387.8	4193980.9	8.1	3.66	0.85	1.70	NO	
L0011934	0	0.40816E-02	654386.1	4193981.6	8.1	3.66	0.85	1.70	NO	
L0011935	0	0.40816E-02	654384.4	4193982.2	8.1	3.66	0.85	1.70	NO	
L0011936	0	0.40816E-02	654382.6	4193982.8	8.1	3.66	0.85	1.70	NO	
L0011937	0	0.40816E-02	654380.9	4193983.4	8.1	3.66	0.85	1.70	NO	
L0011938	0	0.40816E-02	654379.2	4193984.0	8.1	3.66	0.85	1.70	NO	
L0011939	0	0.40816E-02	654377.5	4193984.7	8.1	3.66	0.85	1.70	NO	
L0011940	0	0.40816E-02	654375.8	4193985.3	8.1	3.66	0.85	1.70	NO	
L0011941	0	0.40816E-02	654374.0	4193985.9	8.0	3.66	0.85	1.70	NO	
L0011942	0	0.40816E-02	654372.3	4193986.5	8.0	3.66	0.85	1.70	NO	
L0011943	0	0.40816E-02	654370.6	4193987.2	8.0	3.66	0.85	1.70	NO	
L0011944	0	0.40816E-02	654368.9	4193987.8	8.0	3.66	0.85	1.70	NO	

L0011945	0	0.40816E-02	654367.2	4193988.4	8.0	3.66	0.85	1.70	NO
L0011946	0	0.40816E-02	654365.4	4193989.0	8.0	3.66	0.85	1.70	NO
L0011947	0	0.40816E-02	654363.7	4193989.7	8.0	3.66	0.85	1.70	NO
L0011948	0	0.40816E-02	654362.0	4193990.3	8.0	3.66	0.85	1.70	NO
L0011949	0	0.40816E-02	654360.3	4193990.9	8.0	3.66	0.85	1.70	NO
L0011950	0	0.40816E-02	654358.6	4193991.5	8.0	3.66	0.85	1.70	NO
L0011951	0	0.40816E-02	654356.9	4193992.1	8.0	3.66	0.85	1.70	NO
L0011952	0	0.40816E-02	654355.1	4193992.8	8.0	3.66	0.85	1.70	NO
L0011953	0	0.40816E-02	654353.4	4193993.4	8.0	3.66	0.85	1.70	NO
L0011954	0	0.40816E-02	654351.7	4193994.0	8.0	3.66	0.85	1.70	NO
L0011955	0	0.40816E-02	654350.0	4193994.6	8.0	3.66	0.85	1.70	NO
L0011956	0	0.40816E-02	654348.3	4193995.3	8.0	3.66	0.85	1.70	NO
L0011957	0	0.40816E-02	654346.5	4193995.9	8.0	3.66	0.85	1.70	NO
L0011958	0	0.40816E-02	654344.8	4193996.5	7.9	3.66	0.85	1.70	NO
L0011959	0	0.40816E-02	654343.1	4193997.1	7.9	3.66	0.85	1.70	NO
L0011960	0	0.40816E-02	654341.4	4193997.8	7.9	3.66	0.85	1.70	NO
L0011961	0	0.40816E-02	654339.7	4193998.4	7.9	3.66	0.85	1.70	NO
L0011962	0	0.40816E-02	654337.9	4193999.0	7.9	3.66	0.85	1.70	NO
L0011963	0	0.40816E-02	654336.2	4193999.6	7.9	3.66	0.85	1.70	NO
L0011964	0	0.40816E-02	654334.5	4194000.2	7.9	3.66	0.85	1.70	NO
L0011965	0	0.40816E-02	654332.8	4194000.9	7.9	3.66	0.85	1.70	NO
L0011966	0	0.40816E-02	654331.1	4194001.5	7.9	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE INIT.				INIT. URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0011967	0	0.40816E-02	654329.3	4194002.1	7.9	3.66	0.85	1.70	NO
L0011968	0	0.40816E-02	654327.6	4194002.7	7.9	3.66	0.85	1.70	NO
L0011969	0	0.40816E-02	654325.9	4194003.4	7.9	3.66	0.85	1.70	NO
L0011970	0	0.40816E-02	654324.2	4194004.0	7.9	3.66	0.85	1.70	NO
L0011971	0	0.40816E-02	654322.5	4194004.6	7.9	3.66	0.85	1.70	NO
L0011972	0	0.40816E-02	654320.7	4194005.2	7.9	3.66	0.85	1.70	NO
L0011973	0	0.40816E-02	654319.0	4194005.8	7.9	3.66	0.85	1.70	NO
L0011974	0	0.40816E-02	654317.3	4194006.5	7.9	3.66	0.85	1.70	NO
L0011975	0	0.40816E-02	654315.6	4194007.1	7.9	3.66	0.85	1.70	NO
L0011976	0	0.40816E-02	654313.9	4194007.7	7.9	3.66	0.85	1.70	NO
L0011977	0	0.40816E-02	654312.1	4194008.3	7.9	3.66	0.85	1.70	NO
L0011978	0	0.40816E-02	654310.4	4194009.0	7.9	3.66	0.85	1.70	NO
L0011979	0	0.40816E-02	654308.7	4194009.6	7.9	3.66	0.85	1.70	NO
L0011980	0	0.40816E-02	654307.0	4194010.2	7.9	3.66	0.85	1.70	NO
L0011981	0	0.40816E-02	654305.3	4194010.8	7.9	3.66	0.85	1.70	NO
L0011982	0	0.40816E-02	654303.5	4194011.5	7.9	3.66	0.85	1.70	NO
L0011983	0	0.40816E-02	654301.8	4194012.1	7.8	3.66	0.85	1.70	NO
L0011984	0	0.40816E-02	654300.1	4194012.7	7.8	3.66	0.85	1.70	NO
L0011985	0	0.40816E-02	654298.4	4194013.3	7.8	3.66	0.85	1.70	NO

L0011986	0	0.40816E-02	654296.7	4194013.9	7.8	3.66	0.85	1.70	NO
L0011987	0	0.40816E-02	654295.0	4194014.6	7.8	3.66	0.85	1.70	NO
L0011988	0	0.40816E-02	654293.2	4194015.2	7.8	3.66	0.85	1.70	NO
L0011989	0	0.40816E-02	654291.5	4194015.8	7.8	3.66	0.85	1.70	NO
L0011990	0	0.40816E-02	654289.8	4194016.4	7.8	3.66	0.85	1.70	NO
L0011991	0	0.40816E-02	654288.1	4194017.1	7.8	3.66	0.85	1.70	NO
L0011992	0	0.40816E-02	654286.4	4194017.7	7.8	3.66	0.85	1.70	NO
L0011993	0	0.40816E-02	654284.6	4194018.3	7.8	3.66	0.85	1.70	NO
L0011994	0	0.40816E-02	654282.9	4194018.9	7.8	3.66	0.85	1.70	NO
L0011995	0	0.40816E-02	654281.2	4194019.6	7.8	3.66	0.85	1.70	NO
L0011996	0	0.40816E-02	654279.5	4194020.2	7.8	3.66	0.85	1.70	NO
L0011997	0	0.40816E-02	654277.8	4194020.8	7.8	3.66	0.85	1.70	NO
L0011998	0	0.40816E-02	654276.0	4194021.4	7.8	3.66	0.85	1.70	NO
L0011999	0	0.40816E-02	654274.3	4194022.0	7.8	3.66	0.85	1.70	NO
L0012000	0	0.40816E-02	654272.6	4194022.7	7.8	3.66	0.85	1.70	NO
L0012001	0	0.40816E-02	654270.9	4194023.3	7.8	3.66	0.85	1.70	NO
L0012002	0	0.40816E-02	654269.2	4194023.9	7.8	3.66	0.85	1.70	NO
L0012003	0	0.40816E-02	654267.4	4194024.5	7.8	3.66	0.85	1.70	NO
L0012004	0	0.40816E-02	654265.7	4194025.2	7.8	3.66	0.85	1.70	NO
L0012005	0	0.40816E-02	654264.0	4194025.8	7.8	3.66	0.85	1.70	NO
L0012006	0	0.40816E-02	654262.3	4194026.4	7.7	3.66	0.85	1.70	NO

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*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE		BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0012007	0	0.40816E-02	654260.6	4194027.0	7.7	3.66	0.85	1.70	NO
L0012008	0	0.40816E-02	654258.8	4194027.6	7.7	3.66	0.85	1.70	NO
L0012009	0	0.40816E-02	654257.1	4194028.3	7.7	3.66	0.85	1.70	NO
L0012010	0	0.40816E-02	654255.4	4194028.9	7.7	3.66	0.85	1.70	NO
L0012011	0	0.40816E-02	654253.7	4194029.5	7.7	3.66	0.85	1.70	NO
L0012012	0	0.40816E-02	654252.0	4194030.1	7.7	3.66	0.85	1.70	NO
L0012013	0	0.40816E-02	654250.2	4194030.8	7.7	3.66	0.85	1.70	NO
L0012014	0	0.40816E-02	654248.5	4194031.4	7.7	3.66	0.85	1.70	NO
L0012015	0	0.40816E-02	654246.8	4194032.0	7.7	3.66	0.85	1.70	NO
L0012016	0	0.40816E-02	654245.1	4194032.6	7.7	3.66	0.85	1.70	NO
L0012017	0	0.40816E-02	654243.4	4194033.3	7.7	3.66	0.85	1.70	NO
L0012018	0	0.40816E-02	654241.6	4194033.9	7.7	3.66	0.85	1.70	NO
L0012019	0	0.40816E-02	654239.9	4194034.5	7.6	3.66	0.85	1.70	NO
L0012020	0	0.40816E-02	654238.2	4194035.1	7.6	3.66	0.85	1.70	NO
L0012021	0	0.40816E-02	654236.5	4194035.7	7.6	3.66	0.85	1.70	NO
L0012022	0	0.40816E-02	654234.8	4194036.4	7.6	3.66	0.85	1.70	NO
L0012023	0	0.40816E-02	654233.1	4194037.0	7.6	3.66	0.85	1.70	NO
L0012024	0	0.40816E-02	654231.3	4194037.6	7.6	3.66	0.85	1.70	NO
L0012025	0	0.40816E-02	654229.6	4194038.2	7.6	3.66	0.85	1.70	NO
L0012026	0	0.40816E-02	654227.9	4194038.9	7.6	3.66	0.85	1.70	NO

L0012027	0	0.40816E-02	654226.2	4194039.5	7.6	3.66	0.85	1.70	NO
L0012028	0	0.40816E-02	654224.5	4194040.1	7.6	3.66	0.85	1.70	NO
L0012029	0	0.40816E-02	654222.7	4194040.7	7.6	3.66	0.85	1.70	NO
L0012030	0	0.40816E-02	654221.0	4194041.4	7.6	3.66	0.85	1.70	NO
L0012031	0	0.40816E-02	654219.3	4194042.0	7.6	3.66	0.85	1.70	NO
L0012032	0	0.40816E-02	654217.6	4194042.6	7.6	3.66	0.85	1.70	NO
L0012033	0	0.40816E-02	654215.9	4194043.2	7.5	3.66	0.85	1.70	NO
L0012034	0	0.40816E-02	654214.1	4194043.8	7.5	3.66	0.85	1.70	NO
L0012035	0	0.40816E-02	654212.4	4194044.5	7.5	3.66	0.85	1.70	NO
L0012036	0	0.40816E-02	654210.7	4194045.1	7.5	3.66	0.85	1.70	NO
L0012037	0	0.40816E-02	654209.0	4194045.7	7.5	3.66	0.85	1.70	NO
L0012038	0	0.40816E-02	654207.3	4194046.3	7.5	3.66	0.85	1.70	NO
L0012039	0	0.40816E-02	654205.5	4194047.0	7.5	3.66	0.85	1.70	NO
L0012040	0	0.40816E-02	654203.8	4194047.6	7.5	3.66	0.85	1.70	NO
L0012041	0	0.40816E-02	654202.1	4194048.2	7.5	3.66	0.85	1.70	NO
L0012042	0	0.40816E-02	654200.4	4194048.8	7.5	3.66	0.85	1.70	NO
L0012043	0	0.40816E-02	654198.7	4194049.4	7.5	3.66	0.85	1.70	NO
L0012044	0	0.40816E-02	654196.9	4194050.1	7.5	3.66	0.85	1.70	NO
L0012045	0	0.40816E-02	654195.2	4194050.7	7.4	3.66	0.85	1.70	NO
L0012046	0	0.40816E-02	654193.5	4194051.3	7.4	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE		INIT. INIT.		URBAN EMISSION RATE			
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)			BY

L0012047	0	0.40816E-02	654191.8	4194051.9	7.4	3.66	0.85	1.70	NO		
L0012048	0	0.40816E-02	654190.1	4194052.6	7.4	3.66	0.85	1.70	NO		
L0012049	0	0.40816E-02	654188.3	4194053.2	7.4	3.66	0.85	1.70	NO		
L0012050	0	0.40816E-02	654186.6	4194053.8	7.4	3.66	0.85	1.70	NO		
L0012051	0	0.40816E-02	654184.9	4194054.4	7.4	3.66	0.85	1.70	NO		
L0012052	0	0.40816E-02	654183.2	4194055.1	7.4	3.66	0.85	1.70	NO		
L0012053	0	0.40816E-02	654181.5	4194055.7	7.4	3.66	0.85	1.70	NO		
L0012054	0	0.40816E-02	654179.7	4194056.3	7.4	3.66	0.85	1.70	NO		
L0012055	0	0.40816E-02	654178.0	4194056.9	7.4	3.66	0.85	1.70	NO		
L0012056	0	0.40816E-02	654176.3	4194057.5	7.4	3.66	0.85	1.70	NO		
L0012057	0	0.40816E-02	654174.6	4194058.2	7.4	3.66	0.85	1.70	NO		
L0012058	0	0.40816E-02	654172.9	4194058.8	7.3	3.66	0.85	1.70	NO		
L0012059	0	0.40816E-02	654171.2	4194059.4	7.3	3.66	0.85	1.70	NO		
L0012060	0	0.40816E-02	654169.4	4194060.0	7.3	3.66	0.85	1.70	NO		
L0012061	0	0.40816E-02	654167.7	4194060.7	7.3	3.66	0.85	1.70	NO		
L0012062	0	0.40816E-02	654166.0	4194061.3	7.3	3.66	0.85	1.70	NO		
L0012063	0	0.40816E-02	654164.3	4194061.9	7.3	3.66	0.85	1.70	NO		
L0012064	0	0.40816E-02	654162.6	4194062.5	7.3	3.66	0.85	1.70	NO		
L0012065	0	0.40816E-02	654160.8	4194063.2	7.3	3.66	0.85	1.70	NO		
L0012066	0	0.40816E-02	654159.1	4194063.8	7.3	3.66	0.85	1.70	NO		
L0012067	0	0.40816E-02	654157.4	4194064.4	7.3	3.66	0.85	1.70	NO		

L0012068	0	0.40816E-02	654155.7	4194065.0	7.3	3.66	0.85	1.70	NO
L0012069	0	0.40816E-02	654154.0	4194065.6	7.3	3.66	0.85	1.70	NO
L0012070	0	0.40816E-02	654152.2	4194066.3	7.3	3.66	0.85	1.70	NO
L0012071	0	0.40816E-02	654150.5	4194066.9	7.3	3.66	0.85	1.70	NO
L0012072	0	0.40816E-02	654148.8	4194067.5	7.3	3.66	0.85	1.70	NO
L0012073	0	0.40816E-02	654147.1	4194068.1	7.3	3.66	0.85	1.70	NO
L0012074	0	0.40816E-02	654145.4	4194068.8	7.3	3.66	0.85	1.70	NO
L0012075	0	0.40816E-02	654143.6	4194069.4	7.3	3.66	0.85	1.70	NO
L0012076	0	0.40816E-02	654141.9	4194070.0	7.3	3.66	0.85	1.70	NO
L0012077	0	0.40816E-02	654140.2	4194070.6	7.3	3.66	0.85	1.70	NO
L0012078	0	0.40816E-02	654138.5	4194071.3	7.3	3.66	0.85	1.70	NO
L0012079	0	0.40816E-02	654136.8	4194071.9	7.3	3.66	0.85	1.70	NO
L0012080	0	0.40816E-02	654135.0	4194072.5	7.3	3.66	0.85	1.70	NO
L0012081	0	0.40816E-02	654133.3	4194073.1	7.3	3.66	0.85	1.70	NO
L0012082	0	0.40816E-02	654131.6	4194073.7	7.3	3.66	0.85	1.70	NO
L0012083	0	0.40816E-02	654129.9	4194074.4	7.3	3.66	0.85	1.70	NO
L0012084	0	0.40816E-02	654128.2	4194075.0	7.3	3.66	0.85	1.70	NO
L0012085	0	0.40816E-02	654126.4	4194075.6	7.3	3.66	0.85	1.70	NO
L0012086	0	0.40816E-02	654124.7	4194076.2	7.3	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE INIT. INIT. URBAN EMISSION RATE				SOURCE SCALAR VARY	
SOURCE ID	PART. CATS.	(GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	BY

L0012087	0	0.40816E-02	654123.0	4194076.9	7.3	3.66	0.85	1.70	NO
L0012088	0	0.40816E-02	654121.3	4194077.5	7.3	3.66	0.85	1.70	NO
L0012089	0	0.40816E-02	654119.6	4194078.1	7.3	3.66	0.85	1.70	NO
L0012090	0	0.40816E-02	654117.8	4194078.7	7.3	3.66	0.85	1.70	NO
L0012091	0	0.40816E-02	654116.1	4194079.3	7.3	3.66	0.85	1.70	NO
L0012092	0	0.40816E-02	654114.4	4194080.0	7.4	3.66	0.85	1.70	NO
L0012093	0	0.40816E-02	654112.7	4194080.6	7.4	3.66	0.85	1.70	NO
L0012094	0	0.40816E-02	654111.0	4194081.2	7.4	3.66	0.85	1.70	NO
L0012095	0	0.40816E-02	654109.2	4194081.8	7.4	3.66	0.85	1.70	NO
L0012096	0	0.40816E-02	654107.5	4194082.5	7.4	3.66	0.85	1.70	NO
L0012097	0	0.40816E-02	654105.8	4194083.1	7.4	3.66	0.85	1.70	NO
L0012098	0	0.40816E-02	654104.1	4194083.7	7.4	3.66	0.85	1.70	NO
L0012099	0	0.40816E-02	654102.4	4194084.3	7.4	3.66	0.85	1.70	NO
L0012100	0	0.40816E-02	654100.7	4194085.0	7.4	3.66	0.85	1.70	NO
L0012101	0	0.40816E-02	654098.9	4194085.6	7.4	3.66	0.85	1.70	NO
L0012102	0	0.40816E-02	654097.2	4194086.2	7.4	3.66	0.85	1.70	NO
L0012103	0	0.40816E-02	654095.5	4194086.8	7.4	3.66	0.85	1.70	NO
L0012104	0	0.40816E-02	654093.8	4194087.4	7.4	3.66	0.85	1.70	NO
L0012105	0	0.40816E-02	654092.1	4194088.1	7.4	3.66	0.85	1.70	NO
L0012106	0	0.40816E-02	654090.3	4194088.7	7.4	3.66	0.85	1.70	NO
L0012107	0	0.40816E-02	654088.6	4194089.3	7.5	3.66	0.85	1.70	NO
L0012108	0	0.40816E-02	654086.9	4194089.9	7.5	3.66	0.85	1.70	NO

L0012109	0	0.40816E-02	654085.2	4194090.6	7.5	3.66	0.85	1.70	NO
L0012110	0	0.40816E-02	654083.5	4194091.2	7.5	3.66	0.85	1.70	NO
L0012111	0	0.40816E-02	654081.7	4194091.8	7.5	3.66	0.85	1.70	NO
L0012112	0	0.40816E-02	654080.0	4194092.4	7.5	3.66	0.85	1.70	NO
L0012113	0	0.40816E-02	654078.3	4194093.1	7.5	3.66	0.85	1.70	NO
L0012114	0	0.40816E-02	654076.6	4194093.7	7.5	3.66	0.85	1.70	NO
L0012115	0	0.40816E-02	654074.9	4194094.3	7.5	3.66	0.85	1.70	NO
L0012116	0	0.40816E-02	654073.1	4194094.9	7.5	3.66	0.85	1.70	NO
L0012117	0	0.40816E-02	654071.4	4194095.5	7.5	3.66	0.85	1.70	NO
L0012118	0	0.40816E-02	654069.7	4194096.2	7.6	3.66	0.85	1.70	NO
L0012119	0	0.40816E-02	654068.0	4194096.8	7.6	3.66	0.85	1.70	NO
L0012120	0	0.40816E-02	654066.3	4194097.4	7.6	3.66	0.85	1.70	NO
L0012121	0	0.40816E-02	654064.5	4194098.0	7.6	3.66	0.85	1.70	NO
L0012122	0	0.40816E-02	654062.8	4194098.7	7.6	3.66	0.85	1.70	NO
L0012123	0	0.40816E-02	654061.1	4194099.3	7.6	3.66	0.85	1.70	NO
L0012124	0	0.40816E-02	654059.4	4194099.9	7.7	3.66	0.85	1.70	NO
L0012125	0	0.40816E-02	654057.7	4194100.5	7.7	3.66	0.85	1.70	NO
L0012126	0	0.40816E-02	654055.9	4194101.1	7.7	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.		INIT. URBAN EMISSION RATE		
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0012127	0	0.40816E-02	654054.2	4194101.8	7.7	3.66	0.85	1.70	NO
L0012128	0	0.40816E-02	654052.5	4194102.4	7.7	3.66	0.85	1.70	NO
L0012129	0	0.40816E-02	654050.8	4194103.0	7.8	3.66	0.85	1.70	NO
L0012130	0	0.40816E-02	654049.1	4194103.6	7.8	3.66	0.85	1.70	NO
L0012131	0	0.40816E-02	654047.3	4194104.3	7.8	3.66	0.85	1.70	NO
L0012132	0	0.40816E-02	654045.6	4194104.9	7.8	3.66	0.85	1.70	NO
L0012133	0	0.40816E-02	654043.9	4194105.5	7.8	3.66	0.85	1.70	NO
L0012134	0	0.40816E-02	654042.2	4194106.1	7.9	3.66	0.85	1.70	NO
L0012135	0	0.40816E-02	654040.5	4194106.8	7.9	3.66	0.85	1.70	NO
L0012136	0	0.40816E-02	654038.8	4194107.4	7.9	3.66	0.85	1.70	NO
L0012137	0	0.40816E-02	654037.0	4194108.0	7.9	3.66	0.85	1.70	NO
L0012138	0	0.40816E-02	654035.3	4194108.6	8.0	3.66	0.85	1.70	NO
L0012139	0	0.40816E-02	654033.6	4194109.2	8.0	3.66	0.85	1.70	NO
L0012140	0	0.40816E-02	654031.9	4194109.9	8.0	3.66	0.85	1.70	NO
L0012141	0	0.40816E-02	654030.2	4194110.5	8.0	3.66	0.85	1.70	NO
L0012142	0	0.40816E-02	654028.4	4194111.1	8.1	3.66	0.85	1.70	NO
L0012143	0	0.40816E-02	654026.7	4194111.7	8.1	3.66	0.85	1.70	NO
L0012144	0	0.40816E-02	654025.0	4194112.4	8.1	3.66	0.85	1.70	NO
L0012145	0	0.40816E-02	654023.3	4194113.0	8.2	3.66	0.85	1.70	NO
L0012146	0	0.40816E-02	654021.6	4194113.6	8.2	3.66	0.85	1.70	NO
L0012147	0	0.40816E-02	654019.8	4194114.2	8.2	3.66	0.85	1.70	NO
L0012148	0	0.40816E-02	654018.1	4194114.9	8.2	3.66	0.85	1.70	NO
L0012149	0	0.40816E-02	654016.4	4194115.5	8.2	3.66	0.85	1.70	NO

L0012150	0	0.40816E-02	654014.7	4194116.1	8.2	3.66	0.85	1.70	NO
L0012151	0	0.40816E-02	654013.0	4194116.7	8.3	3.66	0.85	1.70	NO
L0012152	0	0.40816E-02	654011.2	4194117.3	8.3	3.66	0.85	1.70	NO
L0013626	0	0.38314E-02	654006.5	4194128.4	8.3	3.66	0.85	1.70	NO
L0013627	0	0.38314E-02	654006.7	4194130.2	8.3	3.66	0.85	1.70	NO
L0013628	0	0.38314E-02	654006.9	4194132.0	8.3	3.66	0.85	1.70	NO
L0013629	0	0.38314E-02	654007.2	4194133.9	8.3	3.66	0.85	1.70	NO
L0013630	0	0.38314E-02	654007.4	4194135.7	8.3	3.66	0.85	1.70	NO
L0013631	0	0.38314E-02	654007.6	4194137.5	8.3	3.66	0.85	1.70	NO
L0013632	0	0.38314E-02	654007.8	4194139.3	8.3	3.66	0.85	1.70	NO
L0013633	0	0.38314E-02	654008.1	4194141.1	8.3	3.66	0.85	1.70	NO
L0013634	0	0.38314E-02	654008.3	4194142.9	8.3	3.66	0.85	1.70	NO
L0013635	0	0.38314E-02	654008.5	4194144.8	8.3	3.66	0.85	1.70	NO
L0013636	0	0.38314E-02	654008.7	4194146.6	8.3	3.66	0.85	1.70	NO
L0013637	0	0.38314E-02	654008.9	4194148.4	8.3	3.66	0.85	1.70	NO
L0013638	0	0.38314E-02	654009.2	4194150.2	8.3	3.66	0.85	1.70	NO
L0013639	0	0.38314E-02	654009.4	4194152.0	8.3	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE					BASE RELEASE		INIT.	INIT.	URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY

L0013640	0	0.38314E-02	654009.6	4194153.8	8.3	3.66	0.85	1.70	NO	
L0013641	0	0.38314E-02	654009.8	4194155.6	8.3	3.66	0.85	1.70	NO	
L0013642	0	0.38314E-02	654010.0	4194157.5	8.3	3.66	0.85	1.70	NO	
L0013643	0	0.38314E-02	654010.3	4194159.3	8.3	3.66	0.85	1.70	NO	
L0013644	0	0.38314E-02	654010.5	4194161.1	8.3	3.66	0.85	1.70	NO	
L0013645	0	0.38314E-02	654010.7	4194162.9	8.3	3.66	0.85	1.70	NO	
L0013646	0	0.38314E-02	654010.9	4194164.7	8.3	3.66	0.85	1.70	NO	
L0013647	0	0.38314E-02	654011.1	4194166.5	8.3	3.66	0.85	1.70	NO	
L0013648	0	0.38314E-02	654011.4	4194168.3	8.3	3.66	0.85	1.70	NO	
L0013649	0	0.38314E-02	654011.6	4194170.2	8.3	3.66	0.85	1.70	NO	
L0013650	0	0.38314E-02	654011.8	4194172.0	8.3	3.66	0.85	1.70	NO	
L0013651	0	0.38314E-02	654012.0	4194173.8	8.3	3.66	0.85	1.70	NO	
L0013652	0	0.38314E-02	654012.2	4194175.6	8.3	3.66	0.85	1.70	NO	
L0013653	0	0.38314E-02	654012.5	4194177.4	8.3	3.66	0.85	1.70	NO	
L0013654	0	0.38314E-02	654012.7	4194179.2	8.3	3.66	0.85	1.70	NO	
L0013655	0	0.38314E-02	654012.9	4194181.1	8.3	3.66	0.85	1.70	NO	
L0013656	0	0.38314E-02	654013.1	4194182.9	8.3	3.66	0.85	1.70	NO	
L0013657	0	0.38314E-02	654013.4	4194184.7	8.2	3.66	0.85	1.70	NO	
L0013658	0	0.38314E-02	654013.6	4194186.5	8.2	3.66	0.85	1.70	NO	
L0013659	0	0.38314E-02	654013.8	4194188.3	8.2	3.66	0.85	1.70	NO	
L0013660	0	0.38314E-02	654014.0	4194190.1	8.2	3.66	0.85	1.70	NO	
L0013661	0	0.38314E-02	654014.2	4194192.0	8.2	3.66	0.85	1.70	NO	
L0013662	0	0.38314E-02	654014.5	4194193.8	8.2	3.66	0.85	1.70	NO	
L0013663	0	0.38314E-02	654014.7	4194195.6	8.2	3.66	0.85	1.70	NO	

L0013664	0	0.38314E-02	654014.9	4194197.4	8.2	3.66	0.85	1.70	NO
L0013665	0	0.38314E-02	654015.1	4194199.2	8.2	3.66	0.85	1.70	NO
L0013666	0	0.38314E-02	654015.3	4194201.0	8.2	3.66	0.85	1.70	NO
L0013667	0	0.38314E-02	654015.6	4194202.8	8.2	3.66	0.85	1.70	NO
L0013668	0	0.38314E-02	654015.8	4194204.7	8.2	3.66	0.85	1.70	NO
L0013669	0	0.38314E-02	654016.0	4194206.5	8.2	3.66	0.85	1.70	NO
L0013670	0	0.38314E-02	654016.2	4194208.3	8.2	3.66	0.85	1.70	NO
L0013671	0	0.38314E-02	654016.4	4194210.1	8.2	3.66	0.85	1.70	NO
L0013672	0	0.38314E-02	654016.7	4194211.9	8.2	3.66	0.85	1.70	NO
L0013673	0	0.38314E-02	654016.9	4194213.7	8.2	3.66	0.85	1.70	NO
L0013674	0	0.38314E-02	654017.1	4194215.6	8.2	3.66	0.85	1.70	NO
L0013675	0	0.38314E-02	654017.3	4194217.4	8.2	3.66	0.85	1.70	NO
L0013676	0	0.38314E-02	654017.5	4194219.2	8.2	3.66	0.85	1.70	NO
L0013677	0	0.38314E-02	654017.8	4194221.0	8.2	3.66	0.85	1.70	NO
L0013678	0	0.38314E-02	654018.0	4194222.8	8.2	3.66	0.85	1.70	NO
L0013679	0	0.38314E-02	654018.2	4194224.6	8.2	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	BASE X (METERS)	RELEASE Y (METERS)	INIT. ELEV. (METERS)	INIT. HEIGHT (METERS)	SY (METERS)	SZ (METERS)	URBAN SOURCE SCALAR VARY BY

L0013680	0	0.38314E-02	654018.4	4194226.4	8.2	3.66	0.85	1.70	NO
L0013681	0	0.38314E-02	654018.7	4194228.3	8.2	3.66	0.85	1.70	NO
L0013682	0	0.38314E-02	654018.9	4194230.1	8.2	3.66	0.85	1.70	NO
L0013683	0	0.38314E-02	654019.1	4194231.9	8.1	3.66	0.85	1.70	NO
L0013684	0	0.38314E-02	654019.3	4194233.7	8.1	3.66	0.85	1.70	NO
L0013685	0	0.38314E-02	654019.5	4194235.5	8.1	3.66	0.85	1.70	NO
L0013686	0	0.38314E-02	654019.8	4194237.3	8.1	3.66	0.85	1.70	NO
L0013687	0	0.38314E-02	654020.0	4194239.2	8.1	3.66	0.85	1.70	NO
L0013688	0	0.38314E-02	654020.2	4194241.0	8.1	3.66	0.85	1.70	NO
L0013689	0	0.38314E-02	654020.4	4194242.8	8.1	3.66	0.85	1.70	NO
L0013690	0	0.38314E-02	654020.6	4194244.6	8.1	3.66	0.85	1.70	NO
L0013691	0	0.38314E-02	654020.9	4194246.4	8.1	3.66	0.85	1.70	NO
L0013692	0	0.38314E-02	654021.1	4194248.2	8.1	3.66	0.85	1.70	NO
L0013693	0	0.38314E-02	654021.3	4194250.0	8.1	3.66	0.85	1.70	NO
L0013694	0	0.38314E-02	654021.5	4194251.9	8.1	3.66	0.85	1.70	NO
L0013695	0	0.38314E-02	654021.7	4194253.7	8.1	3.66	0.85	1.70	NO
L0013696	0	0.38314E-02	654022.0	4194255.5	8.1	3.66	0.85	1.70	NO
L0013697	0	0.38314E-02	654022.2	4194257.3	8.1	3.66	0.85	1.70	NO
L0013698	0	0.38314E-02	654022.4	4194259.1	8.1	3.66	0.85	1.70	NO
L0013699	0	0.38314E-02	654022.6	4194260.9	8.1	3.66	0.85	1.70	NO
L0013700	0	0.38314E-02	654022.8	4194262.8	8.1	3.66	0.85	1.70	NO
L0013701	0	0.38314E-02	654023.1	4194264.6	8.1	3.66	0.85	1.70	NO
L0013702	0	0.38314E-02	654023.3	4194266.4	8.1	3.66	0.85	1.70	NO
L0013703	0	0.38314E-02	654023.5	4194268.2	8.1	3.66	0.85	1.70	NO
L0013704	0	0.38314E-02	654023.7	4194270.0	8.1	3.66	0.85	1.70	NO

L0013705	0	0.38314E-02	654023.9	4194271.8	8.1	3.66	0.85	1.70	NO
L0013706	0	0.38314E-02	654024.2	4194273.6	8.1	3.66	0.85	1.70	NO
L0013707	0	0.38314E-02	654024.4	4194275.5	8.1	3.66	0.85	1.70	NO
L0013708	0	0.38314E-02	654024.6	4194277.3	8.0	3.66	0.85	1.70	NO
L0013709	0	0.38314E-02	654024.8	4194279.1	8.0	3.66	0.85	1.70	NO
L0013710	0	0.38314E-02	654025.1	4194280.9	8.0	3.66	0.85	1.70	NO
L0013711	0	0.38314E-02	654025.3	4194282.7	8.0	3.66	0.85	1.70	NO
L0013712	0	0.38314E-02	654025.5	4194284.5	8.0	3.66	0.85	1.70	NO
L0013713	0	0.38314E-02	654025.7	4194286.4	8.0	3.66	0.85	1.70	NO
L0013714	0	0.38314E-02	654025.9	4194288.2	8.0	3.66	0.85	1.70	NO
L0013715	0	0.38314E-02	654026.2	4194290.0	8.0	3.66	0.85	1.70	NO
L0013716	0	0.38314E-02	654026.4	4194291.8	8.0	3.66	0.85	1.70	NO
L0013717	0	0.38314E-02	654026.6	4194293.6	8.0	3.66	0.85	1.70	NO
L0013718	0	0.38314E-02	654026.8	4194295.4	8.0	3.66	0.85	1.70	NO
L0013719	0	0.38314E-02	654027.0	4194297.2	8.0	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE		BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0013720	0	0.38314E-02	654027.3	4194299.1	8.0	3.66	0.85	1.70	NO
L0013721	0	0.38314E-02	654027.5	4194300.9	8.0	3.66	0.85	1.70	NO
L0013722	0	0.38314E-02	654027.7	4194302.7	7.9	3.66	0.85	1.70	NO
L0013723	0	0.38314E-02	654027.9	4194304.5	7.9	3.66	0.85	1.70	NO
L0013724	0	0.38314E-02	654028.1	4194306.3	7.9	3.66	0.85	1.70	NO
L0013725	0	0.38314E-02	654028.4	4194308.1	7.9	3.66	0.85	1.70	NO
L0013726	0	0.38314E-02	654028.6	4194310.0	7.9	3.66	0.85	1.70	NO
L0013727	0	0.38314E-02	654028.8	4194311.8	7.9	3.66	0.85	1.70	NO
L0013728	0	0.38314E-02	654029.0	4194313.6	7.8	3.66	0.85	1.70	NO
L0013729	0	0.38314E-02	654029.2	4194315.4	7.8	3.66	0.85	1.70	NO
L0013730	0	0.38314E-02	654029.5	4194317.2	7.8	3.66	0.85	1.70	NO
L0013731	0	0.38314E-02	654029.7	4194319.0	7.8	3.66	0.85	1.70	NO
L0013732	0	0.38314E-02	654029.9	4194320.8	7.8	3.66	0.85	1.70	NO
L0013733	0	0.38314E-02	654030.1	4194322.7	7.8	3.66	0.85	1.70	NO
L0013734	0	0.38314E-02	654030.4	4194324.5	7.7	3.66	0.85	1.70	NO
L0013735	0	0.38314E-02	654030.6	4194326.3	7.7	3.66	0.85	1.70	NO
L0013736	0	0.38314E-02	654030.8	4194328.1	7.7	3.66	0.85	1.70	NO
L0013737	0	0.38314E-02	654031.0	4194329.9	7.7	3.66	0.85	1.70	NO
L0013738	0	0.38314E-02	654031.2	4194331.7	7.7	3.66	0.85	1.70	NO
L0013739	0	0.38314E-02	654031.5	4194333.6	7.6	3.66	0.85	1.70	NO
L0013740	0	0.38314E-02	654031.7	4194335.4	7.6	3.66	0.85	1.70	NO
L0013741	0	0.38314E-02	654031.9	4194337.2	7.6	3.66	0.85	1.70	NO
L0013742	0	0.38314E-02	654032.1	4194339.0	7.6	3.66	0.85	1.70	NO
L0013743	0	0.38314E-02	654032.3	4194340.8	7.6	3.66	0.85	1.70	NO
L0013744	0	0.38314E-02	654032.6	4194342.6	7.5	3.66	0.85	1.70	NO
L0013745	0	0.38314E-02	654032.8	4194344.4	7.5	3.66	0.85	1.70	NO

L0013746	0	0.38314E-02	654033.0	4194346.3	7.5	3.66	0.85	1.70	NO
L0013747	0	0.38314E-02	654033.2	4194348.1	7.5	3.66	0.85	1.70	NO
L0013748	0	0.38314E-02	654033.4	4194349.9	7.5	3.66	0.85	1.70	NO
L0013749	0	0.38314E-02	654033.7	4194351.7	7.5	3.66	0.85	1.70	NO
L0013750	0	0.38314E-02	654033.9	4194353.5	7.5	3.66	0.85	1.70	NO
L0013751	0	0.38314E-02	654034.1	4194355.3	7.4	3.66	0.85	1.70	NO
L0013752	0	0.38314E-02	654034.3	4194357.2	7.4	3.66	0.85	1.70	NO
L0013753	0	0.38314E-02	654034.5	4194359.0	7.4	3.66	0.85	1.70	NO
L0013754	0	0.38314E-02	654034.8	4194360.8	7.4	3.66	0.85	1.70	NO
L0013755	0	0.38314E-02	654035.0	4194362.6	7.4	3.66	0.85	1.70	NO
L0013756	0	0.38314E-02	654035.1	4194364.4	7.4	3.66	0.85	1.70	NO
L0013757	0	0.38314E-02	654035.1	4194366.3	7.3	3.66	0.85	1.70	NO
L0013758	0	0.38314E-02	654035.1	4194368.1	7.3	3.66	0.85	1.70	NO
L0013759	0	0.38314E-02	654035.2	4194369.9	7.3	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	BASE X (METERS)	RELEASE Y (METERS)	INIT. ELEV. (METERS)	INIT. HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION SCALAR	RATE VARY BY

L0013760	0	0.38314E-02	654035.2	4194371.7	7.3	3.66	0.85	1.70	NO		
L0013761	0	0.38314E-02	654035.2	4194373.6	7.3	3.66	0.85	1.70	NO		
L0013762	0	0.38314E-02	654035.2	4194375.4	7.3	3.66	0.85	1.70	NO		
L0013763	0	0.38314E-02	654035.3	4194377.2	7.3	3.66	0.85	1.70	NO		
L0013764	0	0.38314E-02	654035.3	4194379.1	7.3	3.66	0.85	1.70	NO		
L0013765	0	0.38314E-02	654035.3	4194380.9	7.3	3.66	0.85	1.70	NO		
L0013766	0	0.38314E-02	654035.4	4194382.7	7.3	3.66	0.85	1.70	NO		
L0013767	0	0.38314E-02	654035.4	4194384.5	7.3	3.66	0.85	1.70	NO		
L0013768	0	0.38314E-02	654035.4	4194386.4	7.3	3.66	0.85	1.70	NO		
L0013769	0	0.38314E-02	654035.4	4194388.2	7.2	3.66	0.85	1.70	NO		
L0013770	0	0.38314E-02	654035.5	4194390.0	7.2	3.66	0.85	1.70	NO		
L0013771	0	0.38314E-02	654035.5	4194391.9	7.2	3.66	0.85	1.70	NO		
L0013772	0	0.38314E-02	654035.5	4194393.7	7.2	3.66	0.85	1.70	NO		
L0013773	0	0.38314E-02	654035.5	4194395.5	7.2	3.66	0.85	1.70	NO		
L0013774	0	0.38314E-02	654035.6	4194397.3	7.2	3.66	0.85	1.70	NO		
L0013775	0	0.38314E-02	654035.6	4194399.2	7.2	3.66	0.85	1.70	NO		
L0013776	0	0.38314E-02	654035.6	4194401.0	7.2	3.66	0.85	1.70	NO		
L0013777	0	0.38314E-02	654035.6	4194402.8	7.2	3.66	0.85	1.70	NO		
L0013778	0	0.38314E-02	654035.7	4194404.7	7.2	3.66	0.85	1.70	NO		
L0013779	0	0.38314E-02	654035.7	4194406.5	7.2	3.66	0.85	1.70	NO		
L0013780	0	0.38314E-02	654035.7	4194408.3	7.2	3.66	0.85	1.70	NO		
L0013781	0	0.38314E-02	654035.8	4194410.1	7.2	3.66	0.85	1.70	NO		
L0013782	0	0.38314E-02	654035.8	4194412.0	7.2	3.66	0.85	1.70	NO		
L0013783	0	0.38314E-02	654035.8	4194413.8	7.2	3.66	0.85	1.70	NO		
L0013784	0	0.38314E-02	654035.8	4194415.6	7.2	3.66	0.85	1.70	NO		
L0013785	0	0.38314E-02	654035.9	4194417.5	7.2	3.66	0.85	1.70	NO		
L0013786	0	0.38314E-02	654035.9	4194419.3	7.2	3.66	0.85	1.70	NO		

L0013787	0	0.38314E-02	654035.9	4194421.1	7.2	3.66	0.85	1.70	NO
L0013788	0	0.38314E-02	654035.9	4194422.9	7.2	3.66	0.85	1.70	NO
L0013789	0	0.38314E-02	654036.0	4194424.8	7.2	3.66	0.85	1.70	NO
L0013790	0	0.38314E-02	654036.0	4194426.6	7.2	3.66	0.85	1.70	NO
L0013791	0	0.38314E-02	654036.0	4194428.4	7.2	3.66	0.85	1.70	NO
L0013792	0	0.38314E-02	654036.1	4194430.3	7.2	3.66	0.85	1.70	NO
L0013793	0	0.38314E-02	654036.1	4194432.1	7.2	3.66	0.85	1.70	NO
L0013794	0	0.38314E-02	654036.1	4194433.9	7.1	3.66	0.85	1.70	NO
L0013795	0	0.38314E-02	654036.1	4194435.7	7.1	3.66	0.85	1.70	NO
L0013796	0	0.38314E-02	654036.2	4194437.6	7.1	3.66	0.85	1.70	NO
L0013797	0	0.38314E-02	654036.2	4194439.4	7.1	3.66	0.85	1.70	NO
L0013798	0	0.38314E-02	654036.2	4194441.2	7.1	3.66	0.85	1.70	NO
L0013799	0	0.38314E-02	654036.2	4194443.1	7.1	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE		BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0013800	0	0.38314E-02	654036.3	4194444.9	7.1	3.66	0.85	1.70	NO
L0013801	0	0.38314E-02	654036.3	4194446.7	7.1	3.66	0.85	1.70	NO
L0013802	0	0.38314E-02	654036.3	4194448.5	7.1	3.66	0.85	1.70	NO
L0013803	0	0.38314E-02	654036.3	4194450.4	7.1	3.66	0.85	1.70	NO
L0013804	0	0.38314E-02	654036.4	4194452.2	7.1	3.66	0.85	1.70	NO
L0013805	0	0.38314E-02	654036.4	4194454.0	7.1	3.66	0.85	1.70	NO
L0013806	0	0.38314E-02	654036.4	4194455.9	7.1	3.66	0.85	1.70	NO
L0013807	0	0.38314E-02	654036.5	4194457.7	7.1	3.66	0.85	1.70	NO
L0013808	0	0.38314E-02	654036.5	4194459.5	7.1	3.66	0.85	1.70	NO
L0013809	0	0.38314E-02	654036.5	4194461.3	7.1	3.66	0.85	1.70	NO
L0013810	0	0.38314E-02	654036.5	4194463.2	7.1	3.66	0.85	1.70	NO
L0013811	0	0.38314E-02	654036.6	4194465.0	7.1	3.66	0.85	1.70	NO
L0013812	0	0.38314E-02	654036.6	4194466.8	7.1	3.66	0.85	1.70	NO
L0013813	0	0.38314E-02	654036.6	4194468.7	7.1	3.66	0.85	1.70	NO
L0013814	0	0.38314E-02	654036.6	4194470.5	7.1	3.66	0.85	1.70	NO
L0013815	0	0.38314E-02	654036.6	4194472.3	7.1	3.64	0.85	1.70	NO
L0013816	0	0.38314E-02	654036.3	4194474.1	7.1	3.58	0.85	1.70	NO
L0013817	0	0.38314E-02	654036.1	4194475.9	7.1	3.53	0.85	1.70	NO
L0013818	0	0.38314E-02	654035.9	4194477.8	7.1	3.48	0.85	1.70	NO
L0013819	0	0.38314E-02	654035.7	4194479.6	7.1	3.43	0.85	1.70	NO
L0013820	0	0.38314E-02	654035.5	4194481.4	7.1	3.38	0.85	1.70	NO
L0013821	0	0.38314E-02	654035.2	4194483.2	7.1	3.33	0.85	1.70	NO
L0013822	0	0.38314E-02	654035.0	4194485.0	7.1	3.28	0.85	1.70	NO
L0013823	0	0.38314E-02	654034.8	4194486.8	7.1	3.23	0.85	1.70	NO
L0013824	0	0.38314E-02	654034.6	4194488.6	7.1	3.18	0.85	1.70	NO
L0013825	0	0.38314E-02	654034.3	4194490.5	7.1	3.13	0.85	1.70	NO
L0013826	0	0.38314E-02	654034.1	4194492.3	7.1	3.08	0.85	1.70	NO
L0013827	0	0.38314E-02	654033.9	4194494.1	7.1	3.03	0.85	1.70	NO

L0013828	0	0.38314E-02	654033.7	4194495.9	7.1	2.97	0.85	1.70	NO
L0013829	0	0.38314E-02	654033.5	4194497.7	7.1	2.92	0.85	1.70	NO
L0013830	0	0.38314E-02	654033.2	4194499.5	7.1	2.87	0.85	1.70	NO
L0013831	0	0.38314E-02	654033.0	4194501.4	7.1	2.82	0.85	1.70	NO
L0013832	0	0.38314E-02	654032.8	4194503.2	7.1	2.77	0.85	1.70	NO
L0013833	0	0.38314E-02	654032.6	4194505.0	7.1	2.72	0.85	1.70	NO
L0013834	0	0.38314E-02	654032.4	4194506.8	7.1	2.67	0.85	1.70	NO
L0013835	0	0.38314E-02	654032.1	4194508.6	7.1	2.62	0.85	1.70	NO
L0013836	0	0.38314E-02	654031.9	4194510.4	7.1	2.57	0.85	1.70	NO
L0013837	0	0.38314E-02	654031.7	4194512.2	7.1	2.52	0.85	1.70	NO
L0013838	0	0.38314E-02	654031.5	4194514.1	7.1	2.47	0.85	1.70	NO
L0013839	0	0.38314E-02	654031.2	4194515.9	7.1	2.42	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE INIT.				INIT. URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0013840	0	0.38314E-02	654031.0	4194517.7	7.1	2.36	0.85	1.70	NO
L0013841	0	0.38314E-02	654030.8	4194519.5	7.1	2.31	0.85	1.70	NO
L0013842	0	0.38314E-02	654030.6	4194521.3	7.1	2.26	0.85	1.70	NO
L0013843	0	0.38314E-02	654030.4	4194523.1	7.1	2.21	0.85	1.70	NO
L0013844	0	0.38314E-02	654030.1	4194525.0	7.1	2.16	0.85	1.70	NO
L0013845	0	0.38314E-02	654029.9	4194526.8	7.1	2.11	0.85	1.70	NO
L0013846	0	0.38314E-02	654029.7	4194528.6	7.1	2.06	0.85	1.70	NO
L0013847	0	0.38314E-02	654029.5	4194530.4	7.1	2.01	0.85	1.70	NO
L0013848	0	0.38314E-02	654029.3	4194532.2	7.1	1.96	0.85	1.70	NO
L0013849	0	0.38314E-02	654029.0	4194534.0	7.1	1.91	0.85	1.70	NO
L0013850	0	0.38314E-02	654028.8	4194535.8	7.1	1.86	0.85	1.70	NO
L0013851	0	0.38314E-02	654028.6	4194537.7	7.1	1.81	0.85	1.70	NO
L0013852	0	0.38314E-02	654028.4	4194539.5	7.1	1.75	0.85	1.70	NO
L0013853	0	0.38314E-02	654028.1	4194541.3	7.1	1.70	0.85	1.70	NO
L0013854	0	0.38314E-02	654027.9	4194543.1	7.1	1.65	0.85	1.70	NO
L0013855	0	0.38314E-02	654027.7	4194544.9	7.1	1.60	0.85	1.70	NO
L0013856	0	0.38314E-02	654027.5	4194546.7	7.1	1.55	0.85	1.70	NO
L0013857	0	0.38314E-02	654027.3	4194548.6	7.1	1.50	0.85	1.70	NO
L0013858	0	0.38314E-02	654027.0	4194550.4	7.1	1.45	0.85	1.70	NO
L0013859	0	0.38314E-02	654026.8	4194552.2	7.1	1.40	0.85	1.70	NO
L0013860	0	0.38314E-02	654026.6	4194554.0	7.1	1.35	0.85	1.70	NO
L0013861	0	0.38314E-02	654026.4	4194555.8	7.1	1.30	0.85	1.70	NO
L0013862	0	0.38314E-02	654026.2	4194557.6	7.1	1.25	0.85	1.70	NO
L0013863	0	0.38314E-02	654025.9	4194559.4	7.1	1.20	0.85	1.70	NO
L0013864	0	0.38314E-02	654025.7	4194561.3	7.1	1.14	0.85	1.70	NO
L0013865	0	0.38314E-02	654025.5	4194563.1	7.1	1.09	0.85	1.70	NO
L0013866	0	0.38314E-02	654025.3	4194564.9	7.1	1.04	0.85	1.70	NO
L0013867	0	0.38314E-02	654025.1	4194566.7	7.1	0.99	0.85	1.70	NO
L0013868	0	0.38314E-02	654024.8	4194568.5	7.1	0.94	0.85	1.70	NO

L0013869	0	0.38314E-02	654024.6	4194570.3	7.1	0.89	0.85	1.70	NO
L0013870	0	0.38314E-02	654024.4	4194572.2	7.1	0.84	0.85	1.70	NO
L0013871	0	0.38314E-02	654024.2	4194574.0	7.1	0.79	0.85	1.70	NO
L0013872	0	0.38314E-02	654023.9	4194575.8	7.1	0.74	0.85	1.70	NO
L0013873	0	0.38314E-02	654023.7	4194577.6	7.1	0.69	0.85	1.70	NO
L0013874	0	0.38314E-02	654023.5	4194579.4	7.1	0.64	0.85	1.70	NO
L0013875	0	0.38314E-02	654023.3	4194581.2	7.1	0.59	0.85	1.70	NO
L0013876	0	0.38314E-02	654023.1	4194583.0	7.1	0.53	0.85	1.70	NO
L0013877	0	0.38314E-02	654022.8	4194584.9	7.1	0.48	0.85	1.70	NO
L0013878	0	0.38314E-02	654022.6	4194586.7	7.1	0.43	0.85	1.70	NO
L0013879	0	0.38314E-02	654022.4	4194588.5	7.1	0.38	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE INIT.				INIT. URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0013880	0	0.38314E-02	654022.2	4194590.3	7.1	0.33	0.85	1.70	NO
L0013881	0	0.38314E-02	654022.0	4194592.1	7.1	0.28	0.85	1.70	NO
L0013882	0	0.38314E-02	654021.7	4194593.9	7.1	0.23	0.85	1.70	NO
L0013883	0	0.38314E-02	654021.5	4194595.8	7.1	0.18	0.85	1.70	NO
L0013884	0	0.38314E-02	654021.3	4194597.6	7.1	0.13	0.85	1.70	NO
L0013885	0	0.38314E-02	654021.1	4194599.4	7.1	0.08	0.85	1.70	NO
L0013886	0	0.38314E-02	654020.8	4194601.2	7.1	0.03	0.85	1.70	NO
L0013887	0	0.22624E-02	654002.9	4194121.9	8.3	3.66	0.85	1.70	NO
L0013888	0	0.22624E-02	654002.2	4194120.2	8.3	3.66	0.85	1.70	NO
L0013889	0	0.22624E-02	654001.5	4194118.5	8.3	3.66	0.85	1.70	NO
L0013890	0	0.22624E-02	654000.8	4194116.8	8.3	3.66	0.85	1.70	NO
L0013891	0	0.22624E-02	654000.1	4194115.1	8.3	3.66	0.85	1.70	NO
L0013892	0	0.22624E-02	653999.4	4194113.4	8.3	3.66	0.85	1.70	NO
L0013893	0	0.22624E-02	653998.7	4194111.7	8.3	3.66	0.85	1.70	NO
L0013894	0	0.22624E-02	653998.0	4194110.0	8.3	3.66	0.85	1.70	NO
L0013895	0	0.22624E-02	653997.3	4194108.3	8.3	3.66	0.85	1.70	NO
L0013896	0	0.22624E-02	653996.6	4194106.7	8.2	3.66	0.85	1.70	NO
L0013897	0	0.22624E-02	653995.9	4194105.0	8.2	3.66	0.85	1.70	NO
L0013898	0	0.22624E-02	653995.2	4194103.3	8.2	3.66	0.85	1.70	NO
L0013899	0	0.22624E-02	653994.5	4194101.6	8.1	3.66	0.85	1.70	NO
L0013900	0	0.22624E-02	653993.8	4194099.9	8.0	3.66	0.85	1.70	NO
L0013901	0	0.22624E-02	653993.1	4194098.2	7.9	3.66	0.85	1.70	NO
L0013902	0	0.22624E-02	653992.4	4194096.5	7.8	3.66	0.85	1.70	NO
L0013903	0	0.22624E-02	653991.7	4194094.8	7.7	3.66	0.85	1.70	NO
L0013904	0	0.22624E-02	653991.0	4194093.1	7.6	3.66	0.85	1.70	NO
L0013905	0	0.22624E-02	653990.3	4194091.4	7.4	3.66	0.85	1.70	NO
L0013906	0	0.22624E-02	653989.6	4194089.7	7.3	3.66	0.85	1.70	NO
L0013907	0	0.22624E-02	653988.9	4194088.1	7.2	3.66	0.85	1.70	NO
L0013908	0	0.22624E-02	653988.2	4194086.4	7.1	3.66	0.85	1.70	NO
L0013909	0	0.22624E-02	653987.6	4194084.7	6.9	3.66	0.85	1.70	NO

L0013910	0	0.22624E-02	653986.9	4194083.0	6.8	3.66	0.85	1.70	NO
L0013911	0	0.22624E-02	653986.2	4194081.3	6.6	3.66	0.85	1.70	NO
L0013912	0	0.22624E-02	653985.5	4194079.6	6.5	3.66	0.85	1.70	NO
L0013913	0	0.22624E-02	653984.8	4194077.9	6.4	3.66	0.85	1.70	NO
L0013914	0	0.22624E-02	653984.1	4194076.2	6.3	3.66	0.85	1.70	NO
L0013915	0	0.22624E-02	653983.4	4194074.5	6.2	3.66	0.85	1.70	NO
L0013916	0	0.22624E-02	653982.7	4194072.8	6.2	3.66	0.85	1.70	NO
L0013917	0	0.22624E-02	653982.0	4194071.1	6.2	3.66	0.85	1.70	NO
L0013918	0	0.22624E-02	653981.3	4194069.5	6.2	3.66	0.85	1.70	NO
L0013919	0	0.22624E-02	653980.6	4194067.8	6.3	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER		EMISSION RATE		BASE		RELEASE		INIT.		INIT.		URBAN		EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY				
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)							BY

L0013920	0	0.22624E-02	653979.9	4194066.1	6.3	3.66	0.85	1.70	NO						
L0013921	0	0.22624E-02	653979.2	4194064.4	6.3	3.66	0.85	1.70	NO						
L0013922	0	0.22624E-02	653978.5	4194062.7	6.3	3.66	0.85	1.70	NO						
L0013923	0	0.22624E-02	653977.8	4194061.0	6.3	3.66	0.85	1.70	NO						
L0013924	0	0.22624E-02	653977.1	4194059.3	6.3	3.66	0.85	1.70	NO						
L0013925	0	0.22624E-02	653976.4	4194057.6	6.3	3.66	0.85	1.70	NO						
L0013926	0	0.22624E-02	653975.7	4194055.9	6.4	3.66	0.85	1.70	NO						
L0013927	0	0.22624E-02	653975.0	4194054.2	6.4	3.66	0.85	1.70	NO						
L0013928	0	0.22624E-02	653974.3	4194052.5	6.5	3.66	0.85	1.70	NO						
L0013929	0	0.22624E-02	653973.6	4194050.8	6.6	3.66	0.85	1.70	NO						
L0013930	0	0.22624E-02	653972.9	4194049.2	6.8	3.66	0.85	1.70	NO						
L0013931	0	0.22624E-02	653972.2	4194047.5	6.9	3.66	0.85	1.70	NO						
L0013932	0	0.22624E-02	653971.5	4194045.8	7.0	3.66	0.85	1.70	NO						
L0013933	0	0.22624E-02	653970.8	4194044.1	7.1	3.66	0.85	1.70	NO						
L0013934	0	0.22624E-02	653970.2	4194042.4	7.2	3.66	0.85	1.70	NO						
L0013935	0	0.22624E-02	653969.5	4194040.7	7.3	3.66	0.85	1.70	NO						
L0013936	0	0.22624E-02	653968.8	4194039.0	7.5	3.66	0.85	1.70	NO						
L0013937	0	0.22624E-02	653968.1	4194037.3	7.5	3.66	0.85	1.70	NO						
L0013938	0	0.22624E-02	653967.4	4194035.6	7.6	3.66	0.85	1.70	NO						
L0013939	0	0.22624E-02	653966.7	4194033.9	7.7	3.66	0.85	1.70	NO						
L0013940	0	0.22624E-02	653966.0	4194032.2	7.8	3.66	0.85	1.70	NO						
L0013941	0	0.22624E-02	653965.3	4194030.6	7.8	3.66	0.85	1.70	NO						
L0013942	0	0.22624E-02	653964.6	4194028.9	7.8	3.66	0.85	1.70	NO						
L0013943	0	0.22624E-02	653963.9	4194027.2	7.8	3.66	0.85	1.70	NO						
L0013944	0	0.22624E-02	653963.2	4194025.5	7.9	3.66	0.85	1.70	NO						
L0013945	0	0.22624E-02	653962.5	4194023.8	7.9	3.66	0.85	1.70	NO						
L0013946	0	0.22624E-02	653961.8	4194022.1	7.9	3.66	0.85	1.70	NO						
L0013947	0	0.22624E-02	653961.1	4194020.4	7.9	3.66	0.85	1.70	NO						
L0013948	0	0.22624E-02	653960.4	4194018.7	7.9	3.66	0.85	1.70	NO						
L0013949	0	0.22624E-02	653959.7	4194017.0	8.0	3.66	0.85	1.70	NO						
L0013950	0	0.22624E-02	653959.0	4194015.3	8.0	3.66	0.85	1.70	NO						

L0013951	0	0.22624E-02	653958.3	4194013.6	8.0	3.66	0.85	1.70	NO
L0013952	0	0.22624E-02	653957.6	4194012.0	8.0	3.66	0.85	1.70	NO
L0013953	0	0.22624E-02	653956.9	4194010.3	8.0	3.66	0.85	1.70	NO
L0013954	0	0.22624E-02	653956.2	4194008.6	8.1	3.66	0.85	1.70	NO
L0013955	0	0.22624E-02	653955.5	4194006.9	8.1	3.66	0.85	1.70	NO
L0013956	0	0.22624E-02	653954.8	4194005.2	8.1	3.66	0.85	1.70	NO
L0013957	0	0.22624E-02	653954.1	4194003.5	8.1	3.66	0.85	1.70	NO
L0013958	0	0.22624E-02	653953.5	4194001.8	8.2	3.66	0.85	1.70	NO
L0013959	0	0.22624E-02	653952.8	4194000.1	8.2	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER		EMISSION RATE		BASE		RELEASE		INIT.		INIT.		URBAN		EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY				
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY				

L0013960	0	0.22624E-02	653952.1	4193998.4	8.2	3.66	0.85	1.70	NO						
L0013961	0	0.22624E-02	653951.4	4193996.7	8.2	3.66	0.85	1.70	NO						
L0013962	0	0.22624E-02	653950.7	4193995.0	8.2	3.66	0.85	1.70	NO						
L0013963	0	0.22624E-02	653950.0	4193993.3	8.2	3.66	0.85	1.70	NO						
L0013964	0	0.22624E-02	653949.3	4193991.7	8.2	3.66	0.85	1.70	NO						
L0013965	0	0.22624E-02	653948.6	4193990.0	8.2	3.66	0.85	1.70	NO						
L0013966	0	0.22624E-02	653947.9	4193988.3	8.2	3.66	0.85	1.70	NO						
L0013967	0	0.22624E-02	653947.2	4193986.6	8.2	3.66	0.85	1.70	NO						
L0013968	0	0.22624E-02	653946.5	4193984.9	8.2	3.66	0.85	1.70	NO						
L0013969	0	0.22624E-02	653945.8	4193983.2	8.2	3.66	0.85	1.70	NO						
L0013970	0	0.22624E-02	653945.1	4193981.5	8.2	3.66	0.85	1.70	NO						
L0013971	0	0.22624E-02	653944.4	4193979.8	8.2	3.66	0.85	1.70	NO						
L0013972	0	0.22624E-02	653943.7	4193978.1	8.2	3.66	0.85	1.70	NO						
L0013973	0	0.22624E-02	653943.0	4193976.4	8.2	3.66	0.85	1.70	NO						
L0013974	0	0.22624E-02	653942.3	4193974.7	8.2	3.66	0.85	1.70	NO						
L0013975	0	0.22624E-02	653941.6	4193973.1	8.2	3.66	0.85	1.70	NO						
L0013976	0	0.22624E-02	653940.9	4193971.4	8.2	3.66	0.85	1.70	NO						
L0013977	0	0.22624E-02	653940.2	4193969.7	8.2	3.66	0.85	1.70	NO						
L0013978	0	0.22624E-02	653939.5	4193968.0	8.2	3.66	0.85	1.70	NO						
L0013979	0	0.22624E-02	653938.8	4193966.3	8.2	3.66	0.85	1.70	NO						
L0013980	0	0.22624E-02	653938.1	4193964.6	8.2	3.66	0.85	1.70	NO						
L0013981	0	0.22624E-02	653937.4	4193962.9	8.2	3.66	0.85	1.70	NO						
L0013982	0	0.22624E-02	653936.7	4193961.2	8.2	3.66	0.85	1.70	NO						
L0013983	0	0.22624E-02	653936.1	4193959.5	8.2	3.66	0.85	1.70	NO						
L0013984	0	0.22624E-02	653935.4	4193957.8	8.2	3.66	0.85	1.70	NO						
L0013985	0	0.22624E-02	653934.7	4193956.1	8.2	3.66	0.85	1.70	NO						
L0013986	0	0.22624E-02	653934.0	4193954.5	8.2	3.66	0.85	1.70	NO						
L0013987	0	0.22624E-02	653933.3	4193952.8	8.2	3.66	0.85	1.70	NO						
L0013988	0	0.22624E-02	653932.6	4193951.1	8.2	3.66	0.85	1.70	NO						
L0013989	0	0.22624E-02	653931.9	4193949.4	8.2	3.66	0.85	1.70	NO						
L0013990	0	0.22624E-02	653931.2	4193947.7	8.2	3.66	0.85	1.70	NO						
L0013991	0	0.22624E-02	653930.5	4193946.0	8.2	3.66	0.85	1.70	NO						

L0013992	0	0.22624E-02	653929.8	4193944.3	8.2	3.66	0.85	1.70	NO
L0013993	0	0.22624E-02	653929.1	4193942.6	8.2	3.66	0.85	1.70	NO
L0013994	0	0.22624E-02	653928.4	4193940.9	8.2	3.66	0.85	1.70	NO
L0013995	0	0.22624E-02	653927.7	4193939.2	8.2	3.66	0.85	1.70	NO
L0013996	0	0.22624E-02	653927.0	4193937.5	8.2	3.66	0.85	1.70	NO
L0013997	0	0.22624E-02	653926.3	4193935.8	8.2	3.66	0.85	1.70	NO
L0013998	0	0.22624E-02	653925.6	4193934.2	8.2	3.66	0.85	1.70	NO
L0013999	0	0.22624E-02	653924.9	4193932.5	8.2	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER		EMISSION RATE		BASE		RELEASE		INIT.		INIT.		URBAN		EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY				
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY				

L0014000	0	0.22624E-02	653924.2	4193930.8	8.3	3.66	0.85	1.70	NO						
L0014001	0	0.22624E-02	653923.5	4193929.1	8.3	3.66	0.85	1.70	NO						
L0014002	0	0.22624E-02	653922.8	4193927.4	8.3	3.66	0.85	1.70	NO						
L0014003	0	0.22624E-02	653922.1	4193925.7	8.3	3.66	0.85	1.70	NO						
L0014004	0	0.22624E-02	653921.4	4193924.0	8.3	3.66	0.85	1.70	NO						
L0014005	0	0.22624E-02	653920.7	4193922.3	8.3	3.66	0.85	1.70	NO						
L0014006	0	0.22624E-02	653920.0	4193920.6	8.3	3.66	0.85	1.70	NO						
L0014007	0	0.22624E-02	653919.3	4193918.9	8.3	3.66	0.85	1.70	NO						
L0014008	0	0.22624E-02	653918.7	4193917.2	8.3	3.66	0.85	1.70	NO						
L0014009	0	0.22624E-02	653918.0	4193915.6	8.3	3.66	0.85	1.70	NO						
L0014010	0	0.22624E-02	653917.3	4193913.9	8.3	3.66	0.85	1.70	NO						
L0014011	0	0.22624E-02	653916.6	4193912.2	8.3	3.66	0.85	1.70	NO						
L0014012	0	0.22624E-02	653915.9	4193910.5	8.3	3.66	0.85	1.70	NO						
L0014013	0	0.22624E-02	653915.2	4193908.8	8.3	3.66	0.85	1.70	NO						
L0014014	0	0.22624E-02	653914.5	4193907.1	8.3	3.66	0.85	1.70	NO						
L0014015	0	0.22624E-02	653913.8	4193905.4	8.3	3.66	0.85	1.70	NO						
L0014016	0	0.22624E-02	653913.1	4193903.7	8.3	3.66	0.85	1.70	NO						
L0014017	0	0.22624E-02	653912.4	4193902.0	8.3	3.66	0.85	1.70	NO						
L0014018	0	0.22624E-02	653911.7	4193900.3	8.3	3.66	0.85	1.70	NO						
L0014019	0	0.22624E-02	653911.0	4193898.6	8.3	3.66	0.85	1.70	NO						
L0014020	0	0.22624E-02	653910.3	4193896.9	8.3	3.66	0.85	1.70	NO						
L0014021	0	0.22624E-02	653909.6	4193895.3	8.3	3.66	0.85	1.70	NO						
L0014022	0	0.22624E-02	653908.9	4193893.6	8.3	3.66	0.85	1.70	NO						
L0014023	0	0.22624E-02	653908.2	4193891.9	8.3	3.66	0.85	1.70	NO						
L0014024	0	0.22624E-02	653907.5	4193890.2	8.3	3.66	0.85	1.70	NO						
L0014025	0	0.22624E-02	653906.8	4193888.5	8.3	3.66	0.85	1.70	NO						
L0014026	0	0.22624E-02	653906.1	4193886.8	8.3	3.66	0.85	1.70	NO						
L0014027	0	0.22624E-02	653905.4	4193885.1	8.3	3.66	0.85	1.70	NO						
L0014028	0	0.22624E-02	653904.7	4193883.4	8.3	3.66	0.85	1.70	NO						
L0014029	0	0.22624E-02	653904.0	4193881.7	8.3	3.66	0.85	1.70	NO						
L0014030	0	0.22624E-02	653903.3	4193880.0	8.3	3.66	0.85	1.70	NO						
L0014031	0	0.22624E-02	653902.6	4193878.3	8.3	3.66	0.85	1.70	NO						
L0014032	0	0.22624E-02	653901.9	4193876.7	8.3	3.66	0.85	1.70	NO						

L0014033	0	0.22624E-02	653901.3	4193875.0	8.3	3.66	0.85	1.70	NO
L0014034	0	0.22624E-02	653900.6	4193873.3	8.3	3.66	0.85	1.70	NO
L0014035	0	0.22624E-02	653899.9	4193871.6	8.3	3.66	0.85	1.70	NO
L0014036	0	0.22624E-02	653899.2	4193869.9	8.3	3.66	0.85	1.70	NO
L0014037	0	0.22624E-02	653898.5	4193868.2	8.3	3.66	0.85	1.70	NO
L0014038	0	0.22624E-02	653897.8	4193866.5	8.3	3.66	0.85	1.70	NO
L0014039	0	0.22624E-02	653897.1	4193864.8	8.3	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE INIT. INIT. URBAN EMISSION RATE				URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0014040	0	0.22624E-02	653896.4	4193863.1	8.3	3.66	0.85	1.70	NO
L0014041	0	0.22624E-02	653895.7	4193861.4	8.3	3.66	0.85	1.70	NO
L0014042	0	0.22624E-02	653895.0	4193859.7	8.3	3.66	0.85	1.70	NO
L0014043	0	0.22624E-02	653894.3	4193858.1	8.3	3.66	0.85	1.70	NO
L0014044	0	0.22624E-02	653893.6	4193856.4	8.3	3.66	0.85	1.70	NO
L0014045	0	0.22624E-02	653892.9	4193854.7	8.3	3.66	0.85	1.70	NO
L0014046	0	0.22624E-02	653892.2	4193853.0	8.3	3.66	0.85	1.70	NO
L0014047	0	0.22624E-02	653891.5	4193851.3	8.3	3.66	0.85	1.70	NO
L0014048	0	0.22624E-02	653890.8	4193849.6	8.3	3.66	0.85	1.70	NO
L0014049	0	0.22624E-02	653890.1	4193847.9	8.3	3.66	0.85	1.70	NO
L0014050	0	0.22624E-02	653889.4	4193846.2	8.3	3.66	0.85	1.70	NO
L0014051	0	0.22624E-02	653888.7	4193844.5	8.3	3.66	0.85	1.70	NO
L0014052	0	0.22624E-02	653888.0	4193842.8	8.3	3.66	0.85	1.70	NO
L0014053	0	0.22624E-02	653887.3	4193841.1	8.3	3.66	0.85	1.70	NO
L0014054	0	0.22624E-02	653886.6	4193839.4	8.3	3.66	0.85	1.70	NO
L0014055	0	0.22624E-02	653885.9	4193837.8	8.3	3.66	0.85	1.70	NO
L0014056	0	0.22624E-02	653885.2	4193836.1	8.3	3.66	0.85	1.70	NO
L0014057	0	0.22624E-02	653884.6	4193834.4	8.3	3.66	0.85	1.70	NO
L0014058	0	0.22624E-02	653883.9	4193832.7	8.3	3.66	0.85	1.70	NO
L0014059	0	0.22624E-02	653883.2	4193831.0	8.3	3.66	0.85	1.70	NO
L0014060	0	0.22624E-02	653882.5	4193829.3	8.3	3.66	0.85	1.70	NO
L0014061	0	0.22624E-02	653881.8	4193827.6	8.3	3.66	0.85	1.70	NO
L0014062	0	0.22624E-02	653881.1	4193825.9	8.3	3.66	0.85	1.70	NO
L0014063	0	0.22624E-02	653880.4	4193824.2	8.3	3.66	0.85	1.70	NO
L0014064	0	0.22624E-02	653879.7	4193822.5	8.3	3.66	0.85	1.70	NO
L0014065	0	0.22624E-02	653879.0	4193820.8	8.3	3.66	0.85	1.70	NO
L0014066	0	0.22624E-02	653878.3	4193819.2	8.3	3.66	0.85	1.70	NO
L0014067	0	0.22624E-02	653877.6	4193817.5	8.3	3.66	0.85	1.70	NO
L0014068	0	0.22624E-02	653876.9	4193815.8	8.3	3.66	0.85	1.70	NO
L0014069	0	0.22624E-02	653876.2	4193814.1	8.3	3.66	0.85	1.70	NO
L0014070	0	0.22624E-02	653875.5	4193812.4	8.3	3.66	0.85	1.70	NO
L0014071	0	0.22624E-02	653874.8	4193810.7	8.3	3.66	0.85	1.70	NO
L0014072	0	0.22624E-02	653874.1	4193809.0	8.3	3.66	0.85	1.70	NO
L0014073	0	0.22624E-02	653873.4	4193807.3	8.3	3.66	0.85	1.70	NO

L0014074	0	0.22624E-02	653872.7	4193805.6	8.3	3.66	0.85	1.70	NO
L0014075	0	0.22624E-02	653872.0	4193803.9	8.3	3.66	0.85	1.70	NO
L0014076	0	0.22624E-02	653871.3	4193802.2	8.3	3.66	0.85	1.70	NO
L0014077	0	0.22624E-02	653870.6	4193800.6	8.3	3.66	0.85	1.70	NO
L0014078	0	0.22624E-02	653869.9	4193798.9	8.3	3.66	0.85	1.70	NO
L0014079	0	0.22624E-02	653869.2	4193797.2	8.2	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE		RELEASE	INIT.	INIT.	URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0014080	0	0.22624E-02	653868.5	4193795.5	8.2	3.66	0.85	1.70	NO
L0014081	0	0.22624E-02	653867.8	4193793.8	8.2	3.66	0.85	1.70	NO
L0014082	0	0.22624E-02	653867.2	4193792.1	8.2	3.66	0.85	1.70	NO
L0014083	0	0.22624E-02	653866.5	4193790.4	8.2	3.66	0.85	1.70	NO
L0014084	0	0.22624E-02	653865.8	4193788.7	8.2	3.66	0.85	1.70	NO
L0014085	0	0.22624E-02	653865.1	4193787.0	8.2	3.66	0.85	1.70	NO
L0014086	0	0.22624E-02	653864.4	4193785.3	8.2	3.66	0.85	1.70	NO
L0014087	0	0.22624E-02	653863.7	4193783.6	8.2	3.66	0.85	1.70	NO
L0014088	0	0.22624E-02	653863.0	4193781.9	8.2	3.66	0.85	1.70	NO
L0014089	0	0.22624E-02	653862.3	4193780.3	8.2	3.66	0.85	1.70	NO
L0014090	0	0.22624E-02	653861.6	4193778.6	8.2	3.66	0.85	1.70	NO
L0014091	0	0.22624E-02	653860.9	4193776.9	8.2	3.66	0.85	1.70	NO
L0014092	0	0.22624E-02	653860.2	4193775.2	8.2	3.66	0.85	1.70	NO
L0014093	0	0.22624E-02	653859.5	4193773.5	8.2	3.66	0.85	1.70	NO
L0014094	0	0.22624E-02	653858.8	4193771.8	8.2	3.66	0.85	1.70	NO
L0014095	0	0.22624E-02	653858.1	4193770.1	8.2	3.66	0.85	1.70	NO
L0014096	0	0.22624E-02	653857.4	4193768.4	8.2	3.66	0.85	1.70	NO
L0014097	0	0.22624E-02	653856.7	4193766.7	8.2	3.66	0.85	1.70	NO
L0014098	0	0.22624E-02	653856.0	4193765.0	8.2	3.66	0.85	1.70	NO
L0014099	0	0.22624E-02	653855.3	4193763.3	8.2	3.66	0.85	1.70	NO
L0014100	0	0.22624E-02	653854.6	4193761.7	8.2	3.66	0.85	1.70	NO
L0014101	0	0.22624E-02	653853.9	4193760.0	8.2	3.66	0.85	1.70	NO
L0014102	0	0.22624E-02	653853.2	4193758.3	8.1	3.66	0.85	1.70	NO
L0014103	0	0.22624E-02	653852.5	4193756.6	8.1	3.66	0.85	1.70	NO
L0014104	0	0.22624E-02	653851.8	4193754.9	8.1	3.66	0.85	1.70	NO
L0014105	0	0.22624E-02	653851.1	4193753.2	8.1	3.66	0.85	1.70	NO
L0014106	0	0.22624E-02	653850.4	4193751.5	8.1	3.66	0.85	1.70	NO
L0014107	0	0.22624E-02	653849.8	4193749.8	8.1	3.66	0.85	1.70	NO
L0014108	0	0.22624E-02	653849.1	4193748.1	8.1	3.66	0.85	1.70	NO
L0014109	0	0.22624E-02	653848.4	4193746.4	8.1	3.66	0.85	1.70	NO
L0014110	0	0.22624E-02	653847.7	4193744.7	8.1	3.66	0.85	1.70	NO
L0014111	0	0.22624E-02	653847.0	4193743.1	8.1	3.66	0.85	1.70	NO
L0014112	0	0.22624E-02	653846.3	4193741.4	8.1	3.66	0.85	1.70	NO
L0014113	0	0.22624E-02	653845.6	4193739.7	8.1	3.66	0.85	1.70	NO
L0014114	0	0.22624E-02	653844.9	4193738.0	8.0	3.66	0.85	1.70	NO

L0014115	0	0.22624E-02	653844.2	4193736.3	8.0	3.66	0.85	1.70	NO
L0014116	0	0.22624E-02	653843.5	4193734.6	8.0	3.66	0.85	1.70	NO
L0014117	0	0.22624E-02	653842.8	4193732.9	8.0	3.66	0.85	1.70	NO
L0014118	0	0.22624E-02	653842.1	4193731.2	8.0	3.66	0.85	1.70	NO
L0014119	0	0.22624E-02	653841.4	4193729.5	8.0	3.66	0.85	1.70	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE				BASE RELEASE		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0014120	0	0.22624E-02	653840.7	4193727.8	8.0	3.66	0.85	1.70	NO
L0014121	0	0.22624E-02	653840.0	4193726.1	8.0	3.66	0.85	1.70	NO
L0014122	0	0.22624E-02	653839.3	4193724.4	8.0	3.66	0.85	1.70	NO
L0014123	0	0.22624E-02	653838.6	4193722.8	8.0	3.66	0.85	1.70	NO
L0014124	0	0.22624E-02	653837.9	4193721.1	7.9	3.66	0.85	1.70	NO
L0014125	0	0.22624E-02	653837.2	4193719.4	7.9	3.66	0.85	1.70	NO
L0014126	0	0.22624E-02	653836.5	4193717.7	7.9	3.66	0.85	1.70	NO
L0014127	0	0.22624E-02	653835.8	4193716.0	7.9	3.66	0.85	1.70	NO
L0014128	0	0.22624E-02	653835.1	4193714.3	7.9	3.66	0.85	1.70	NO
L0014129	0	0.22624E-02	653834.4	4193712.6	7.9	3.66	0.85	1.70	NO
L0014130	0	0.22624E-02	653833.7	4193710.9	7.9	3.66	0.85	1.70	NO
L0014131	0	0.22624E-02	653833.1	4193709.2	7.9	3.66	0.85	1.70	NO
L0014132	0	0.22624E-02	653832.4	4193707.5	7.8	3.66	0.85	1.70	NO
L0014133	0	0.22624E-02	653831.7	4193705.8	7.8	3.66	0.85	1.70	NO
L0014134	0	0.22624E-02	653831.0	4193704.2	7.8	3.66	0.85	1.70	NO
L0014135	0	0.22624E-02	653830.3	4193702.5	7.8	3.66	0.85	1.70	NO
L0014136	0	0.22624E-02	653829.6	4193700.8	7.8	3.66	0.85	1.70	NO
L0014137	0	0.22624E-02	653828.9	4193699.1	7.8	3.66	0.85	1.70	NO
L0014138	0	0.22624E-02	653828.2	4193697.4	7.8	3.66	0.85	1.70	NO
L0014139	0	0.22624E-02	653827.5	4193695.7	7.8	3.66	0.85	1.70	NO
L0014140	0	0.22624E-02	653826.8	4193694.0	7.8	3.66	0.85	1.70	NO
L0014141	0	0.22624E-02	653826.1	4193692.3	7.7	3.66	0.85	1.70	NO
L0014142	0	0.22624E-02	653825.4	4193690.6	7.7	3.66	0.85	1.70	NO
L0014143	0	0.22624E-02	653824.7	4193688.9	7.7	3.66	0.85	1.70	NO
L0014144	0	0.22624E-02	653824.0	4193687.2	7.7	3.66	0.85	1.70	NO
L0014145	0	0.22624E-02	653823.3	4193685.5	7.7	3.66	0.85	1.70	NO
L0014146	0	0.22624E-02	653822.6	4193683.9	7.7	3.66	0.85	1.70	NO
L0014147	0	0.22624E-02	653821.9	4193682.2	7.7	3.66	0.85	1.70	NO
L0014148	0	0.22624E-02	653821.2	4193680.5	7.7	3.66	0.85	1.70	NO
L0014149	0	0.22624E-02	653820.5	4193678.8	7.6	3.66	0.85	1.70	NO
L0014150	0	0.22624E-02	653819.8	4193677.1	7.6	3.66	0.85	1.70	NO
L0014151	0	0.22624E-02	653819.1	4193675.4	7.6	3.66	0.85	1.70	NO
L0014152	0	0.22624E-02	653818.4	4193673.7	7.6	3.66	0.85	1.70	NO
L0014153	0	0.22624E-02	653817.7	4193672.0	7.5	3.66	0.85	1.70	NO
L0014154	0	0.22624E-02	653817.0	4193670.3	7.5	3.66	0.85	1.70	NO
L0014155	0	0.22624E-02	653816.3	4193668.6	7.5	3.66	0.85	1.70	NO

L0014156	0	0.22624E-02	653815.7	4193666.9	7.5	3.66	0.85	1.70	NO
L0014157	0	0.22624E-02	653815.0	4193665.3	7.5	3.66	0.85	1.70	NO
L0014158	0	0.22624E-02	653814.3	4193663.6	7.4	3.66	0.85	1.70	NO
L0014159	0	0.22624E-02	653813.6	4193661.9	7.4	3.66	0.85	1.70	NO

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER		EMISSION RATE		BASE		RELEASE		INIT.	INIT.	URBAN		EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR	VARY		
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY			

L0014160	0	0.22624E-02	653812.9	4193660.2	7.4	3.66	0.85	1.70	NO				
L0014161	0	0.22624E-02	653812.2	4193658.5	7.4	3.66	0.85	1.70	NO				
L0014162	0	0.22624E-02	653811.5	4193656.8	7.4	3.66	0.85	1.70	NO				
L0014163	0	0.22624E-02	653810.8	4193655.1	7.3	3.66	0.85	1.70	NO				
L0014164	0	0.22624E-02	653810.1	4193653.4	7.3	3.66	0.85	1.70	NO				
L0014165	0	0.22624E-02	653809.4	4193651.7	7.3	3.66	0.85	1.70	NO				
L0014166	0	0.22624E-02	653808.7	4193650.0	7.3	3.66	0.85	1.70	NO				
L0014167	0	0.22624E-02	653808.0	4193648.3	7.3	3.66	0.85	1.70	NO				
L0014168	0	0.22624E-02	653807.3	4193646.7	7.3	3.66	0.85	1.70	NO				
L0014169	0	0.22624E-02	653806.6	4193645.0	7.3	3.66	0.85	1.70	NO				
L0014170	0	0.22624E-02	653805.9	4193643.3	7.2	3.66	0.85	1.70	NO				
L0014171	0	0.22624E-02	653805.2	4193641.6	7.2	3.66	0.85	1.70	NO				
L0014172	0	0.22624E-02	653804.5	4193639.9	7.2	3.66	0.85	1.70	NO				
L0014173	0	0.22624E-02	653803.8	4193638.2	7.2	3.66	0.85	1.70	NO				
L0014174	0	0.22624E-02	653803.1	4193636.5	7.2	3.66	0.85	1.70	NO				
L0014175	0	0.22624E-02	653802.4	4193634.8	7.2	3.66	0.85	1.70	NO				
L0014176	0	0.22624E-02	653801.7	4193633.1	7.2	3.66	0.85	1.70	NO				
L0014177	0	0.22624E-02	653801.0	4193631.4	7.1	3.66	0.85	1.70	NO				
L0014178	0	0.22624E-02	653800.3	4193629.7	7.1	3.66	0.85	1.70	NO				
L0014179	0	0.22624E-02	653799.6	4193628.0	7.1	3.66	0.85	1.70	NO				
L0014180	0	0.22624E-02	653798.9	4193626.4	7.1	3.66	0.85	1.70	NO				
L0014181	0	0.22624E-02	653798.3	4193624.7	7.1	3.66	0.85	1.70	NO				
L0014182	0	0.22624E-02	653797.6	4193623.0	7.1	3.66	0.85	1.70	NO				
L0014183	0	0.22624E-02	653796.9	4193621.3	7.1	3.66	0.85	1.70	NO				
L0014184	0	0.22624E-02	653796.2	4193619.6	7.1	3.66	0.85	1.70	NO				
L0014185	0	0.22624E-02	653795.5	4193617.9	7.0	3.66	0.85	1.70	NO				
L0014186	0	0.22624E-02	653794.8	4193616.2	7.0	3.66	0.85	1.70	NO				
L0014187	0	0.22624E-02	653794.1	4193614.5	7.0	3.66	0.85	1.70	NO				
L0014188	0	0.22624E-02	653793.4	4193612.8	7.0	3.66	0.85	1.70	NO				
L0014189	0	0.22624E-02	653792.7	4193611.1	7.0	3.66	0.85	1.70	NO				
L0014190	0	0.22624E-02	653792.0	4193609.4	7.0	3.66	0.85	1.70	NO				
L0014191	0	0.22624E-02	653791.3	4193607.8	7.0	3.66	0.85	1.70	NO				
L0014192	0	0.22624E-02	653790.6	4193606.1	7.0	3.66	0.85	1.70	NO				
L0014193	0	0.22624E-02	653789.9	4193604.4	7.0	3.66	0.85	1.70	NO				
L0014194	0	0.22624E-02	653789.2	4193602.7	7.0	3.66	0.85	1.70	NO				
L0014195	0	0.22624E-02	653788.5	4193601.0	6.9	3.66	0.85	1.70	NO				
L0014196	0	0.22624E-02	653787.8	4193599.3	6.9	3.66	0.85	1.70	NO				

L0014197 0 0.22624E-02 653787.1 4193597.6 6.9 3.66 0.85 1.70 NO
L0014198 0 0.22624E-02 653786.4 4193595.9 6.9 3.66 0.85 1.70 NO
L0014199 0 0.22624E-02 653785.7 4193594.2 6.9 3.66 0.85 1.70 NO

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*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	EMISSION RATE (GRAMS/SEC) (METERS)	BASE X (METERS)	RELEASE Y (METERS)	INIT. ELEV. (METERS)	INIT. HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY

L0014200	0	0.22624E-02 653785.0	4193592.5	6.9	3.66	0.85	1.70	NO		
L0014201	0	0.22624E-02 653784.3	4193590.8	6.9	3.66	0.85	1.70	NO		
L0014202	0	0.22624E-02 653783.6	4193589.2	6.9	3.66	0.85	1.70	NO		
L0014203	0	0.22624E-02 653782.9	4193587.5	6.9	3.66	0.85	1.70	NO		
L0014204	0	0.22624E-02 653782.2	4193585.8	6.9	3.66	0.85	1.70	NO		
L0014205	0	0.22624E-02 653781.6	4193584.1	6.8	3.66	0.85	1.70	NO		
L0014206	0	0.22624E-02 653780.9	4193582.4	6.8	3.66	0.85	1.70	NO		
L0014207	0	0.22624E-02 653780.2	4193580.7	6.8	3.66	0.85	1.70	NO		
L0014208	0	0.22624E-02 653779.5	4193579.0	6.8	3.66	0.85	1.70	NO		
L0014209	0	0.22624E-02 653778.8	4193577.3	6.8	3.66	0.85	1.70	NO		
L0014210	0	0.22624E-02 653778.1	4193575.6	6.8	3.66	0.85	1.70	NO		
L0014211	0	0.22624E-02 653777.4	4193573.9	6.8	3.66	0.85	1.70	NO		
L0014212	0	0.22624E-02 653776.7	4193572.2	6.8	3.66	0.85	1.70	NO		
L0014213	0	0.22624E-02 653776.0	4193570.5	6.8	3.66	0.85	1.70	NO		
L0014214	0	0.22624E-02 653775.3	4193568.9	6.8	3.66	0.85	1.70	NO		
L0014215	0	0.22624E-02 653774.6	4193567.2	6.8	3.66	0.85	1.70	NO		
L0014216	0	0.22624E-02 653773.9	4193565.5	6.8	3.66	0.85	1.70	NO		
L0014217	0	0.22624E-02 653773.2	4193563.8	6.8	3.66	0.85	1.70	NO		
L0014218	0	0.22624E-02 653772.5	4193562.1	6.8	3.66	0.85	1.70	NO		
L0014219	0	0.22624E-02 653771.8	4193560.4	6.8	3.66	0.85	1.70	NO		
L0014220	0	0.22624E-02 653771.1	4193558.7	6.8	3.66	0.85	1.70	NO		
L0014221	0	0.22624E-02 653770.4	4193557.0	6.8	3.66	0.85	1.70	NO		
L0014222	0	0.22624E-02 653769.7	4193555.3	6.8	3.66	0.85	1.70	NO		
L0014223	0	0.22624E-02 653769.0	4193553.6	6.8	3.66	0.85	1.70	NO		
L0014224	0	0.22624E-02 653768.3	4193551.9	6.8	3.66	0.85	1.70	NO		
L0014225	0	0.22624E-02 653767.6	4193550.3	6.7	3.66	0.85	1.70	NO		
L0014226	0	0.22624E-02 653766.9	4193548.6	6.7	3.66	0.85	1.70	NO		
L0014227	0	0.22624E-02 653766.2	4193546.9	6.7	3.66	0.85	1.70	NO		
L0014228	0	0.22624E-02 653765.5	4193545.2	6.7	3.66	0.85	1.70	NO		
L0014229	0	0.22624E-02 653764.8	4193543.5	6.7	3.66	0.85	1.70	NO		
L0014230	0	0.22624E-02 653764.2	4193541.8	6.7	3.66	0.85	1.70	NO		
L0014231	0	0.22624E-02 653763.5	4193540.1	6.7	3.66	0.85	1.70	NO		
L0014232	0	0.22624E-02 653762.8	4193538.4	6.7	3.66	0.85	1.70	NO		
L0014233	0	0.22624E-02 653762.1	4193536.7	6.7	3.66	0.85	1.70	NO		
L0014234	0	0.22624E-02 653761.4	4193535.0	6.7	3.66	0.85	1.70	NO		
L0014235	0	0.22624E-02 653760.7	4193533.3	6.7	3.66	0.85	1.70	NO		
L0014236	0	0.22624E-02 653760.0	4193531.6	6.7	3.66	0.85	1.70	NO		
L0014237	0	0.22624E-02 653759.3	4193530.0	6.7	3.66	0.85	1.70	NO		

L0014238 0 0.22624E-02 653758.6 4193528.3 6.7 3.66 0.85 1.70 NO
L0014239 0 0.22624E-02 653757.9 4193526.6 6.7 3.66 0.85 1.70 NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY

L0014240	0	0.22624E-02	653757.2	4193524.9	6.7	3.66	0.85	1.70	NO	
L0014241	0	0.22624E-02	653756.5	4193523.2	6.7	3.66	0.85	1.70	NO	
L0014242	0	0.22624E-02	653755.8	4193521.5	6.7	3.66	0.85	1.70	NO	
L0014243	0	0.22624E-02	653755.1	4193519.8	6.7	3.66	0.85	1.70	NO	
L0014244	0	0.22624E-02	653754.4	4193518.1	6.7	3.66	0.85	1.70	NO	
L0014245	0	0.22624E-02	653753.7	4193516.4	6.7	3.66	0.85	1.70	NO	
L0014246	0	0.22624E-02	653753.0	4193514.7	6.7	3.66	0.85	1.70	NO	
L0014247	0	0.22624E-02	653752.3	4193513.0	6.7	3.66	0.85	1.70	NO	
L0014248	0	0.22624E-02	653751.6	4193511.4	6.7	3.66	0.85	1.70	NO	
L0014249	0	0.22624E-02	653750.9	4193509.7	6.7	3.66	0.85	1.70	NO	
L0014250	0	0.22624E-02	653750.2	4193508.0	6.7	3.66	0.85	1.70	NO	
L0014251	0	0.22624E-02	653749.5	4193506.3	6.7	3.66	0.85	1.70	NO	
L0014252	0	0.22624E-02	653748.8	4193504.6	6.7	3.66	0.85	1.70	NO	
L0014253	0	0.22624E-02	653748.1	4193502.9	6.7	3.66	0.85	1.70	NO	
L0014254	0	0.22624E-02	653747.4	4193501.2	6.7	3.66	0.85	1.70	NO	
L0014255	0	0.22624E-02	653746.8	4193499.5	6.7	3.66	0.85	1.70	NO	
L0014256	0	0.22624E-02	653746.1	4193497.8	6.7	3.66	0.85	1.70	NO	
L0014257	0	0.22624E-02	653745.4	4193496.1	6.7	3.66	0.85	1.70	NO	
L0014258	0	0.22624E-02	653744.7	4193494.4	6.7	3.66	0.85	1.70	NO	
L0014259	0	0.22624E-02	653744.0	4193492.8	6.7	3.66	0.85	1.70	NO	
L0014260	0	0.22624E-02	653743.3	4193491.1	6.7	3.66	0.85	1.70	NO	
L0014261	0	0.22624E-02	653742.6	4193489.4	6.7	3.66	0.85	1.70	NO	
L0014262	0	0.22624E-02	653741.9	4193487.7	6.7	3.66	0.85	1.70	NO	
L0014263	0	0.22624E-02	653741.2	4193486.0	6.7	3.66	0.85	1.70	NO	
L0014264	0	0.22624E-02	653740.5	4193484.3	6.7	3.66	0.85	1.70	NO	
L0014265	0	0.22624E-02	653739.8	4193482.6	6.7	3.66	0.85	1.70	NO	
L0014266	0	0.22624E-02	653739.1	4193480.9	6.7	3.66	0.85	1.70	NO	
L0014267	0	0.22624E-02	653738.4	4193479.2	6.7	3.66	0.85	1.70	NO	
L0014268	0	0.22624E-02	653737.7	4193477.5	6.7	3.66	0.85	1.70	NO	
L0014269	0	0.22624E-02	653737.0	4193475.8	6.7	3.66	0.85	1.70	NO	
L0014270	0	0.22624E-02	653736.3	4193474.1	6.7	3.66	0.85	1.70	NO	
L0014271	0	0.22624E-02	653735.6	4193472.5	6.7	3.66	0.85	1.70	NO	
L0014272	0	0.22624E-02	653734.9	4193470.8	6.7	3.66	0.85	1.70	NO	
L0014273	0	0.22624E-02	653734.2	4193469.1	6.7	3.66	0.85	1.70	NO	
L0014274	0	0.22624E-02	653733.5	4193467.4	6.7	3.66	0.85	1.70	NO	
L0014275	0	0.22624E-02	653732.8	4193465.7	6.7	3.66	0.85	1.70	NO	
L0014276	0	0.22624E-02	653732.1	4193464.0	6.7	3.66	0.85	1.70	NO	
L0014277	0	0.22624E-02	653731.4	4193462.3	6.7	3.66	0.85	1.70	NO	
L0014278	0	0.22624E-02	653730.7	4193460.6	6.7	3.66	0.85	1.70	NO	

L0014279 0 0.22624E-02 653730.0 4193458.9 6.7 3.66 0.85 1.70 NO
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** ***

*** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE SCALAR VARY BY
L0014280	0	0.22624E-02 653729.4	4193457.2	6.7	3.66	0.85	1.70	NO	
L0014281	0	0.22624E-02 653728.7	4193455.5	6.7	3.66	0.85	1.70	NO	
L0014282	0	0.22624E-02 653728.0	4193453.9	6.7	3.66	0.85	1.70	NO	
L0014283	0	0.22624E-02 653727.3	4193452.2	6.7	3.66	0.85	1.70	NO	
L0014284	0	0.22624E-02 653726.6	4193450.5	6.7	3.66	0.85	1.70	NO	
L0014285	0	0.22624E-02 653725.9	4193448.8	6.7	3.66	0.85	1.70	NO	
L0014286	0	0.22624E-02 653725.2	4193447.1	6.7	3.66	0.85	1.70	NO	
L0014287	0	0.22624E-02 653724.5	4193445.4	6.7	3.66	0.85	1.70	NO	
L0014288	0	0.22624E-02 653723.8	4193443.7	6.7	3.66	0.85	1.70	NO	
L0014289	0	0.22624E-02 653723.1	4193442.0	6.7	3.66	0.85	1.70	NO	
L0014290	0	0.22624E-02 653722.4	4193440.3	6.7	3.66	0.85	1.70	NO	
L0014291	0	0.22624E-02 653721.7	4193438.6	6.7	3.66	0.85	1.70	NO	
L0014292	0	0.22624E-02 653721.0	4193436.9	6.7	3.66	0.85	1.70	NO	
L0014293	0	0.22624E-02 653720.3	4193435.3	6.7	3.66	0.85	1.70	NO	
L0014294	0	0.22624E-02 653719.6	4193433.6	6.8	3.66	0.85	1.70	NO	
L0014295	0	0.22624E-02 653718.9	4193431.9	6.8	3.66	0.85	1.70	NO	
L0014296	0	0.22624E-02 653718.2	4193430.2	6.8	3.66	0.85	1.70	NO	
L0014297	0	0.22624E-02 653717.5	4193428.5	6.8	3.66	0.85	1.70	NO	
L0014298	0	0.22624E-02 653716.8	4193426.8	6.8	3.66	0.85	1.70	NO	
L0014299	0	0.22624E-02 653716.1	4193425.1	6.8	3.66	0.85	1.70	NO	
L0014300	0	0.22624E-02 653715.4	4193423.4	6.8	3.66	0.85	1.70	NO	
L0014301	0	0.22624E-02 653714.7	4193421.7	6.8	3.66	0.85	1.70	NO	
L0014302	0	0.22624E-02 653714.0	4193420.0	6.8	3.66	0.85	1.70	NO	
L0014303	0	0.22624E-02 653713.3	4193418.3	6.8	3.66	0.85	1.70	NO	
L0014304	0	0.22624E-02 653712.7	4193416.6	6.8	3.66	0.85	1.70	NO	
L0014305	0	0.22624E-02 653712.0	4193415.0	6.8	3.66	0.85	1.70	NO	
L0014306	0	0.22624E-02 653711.3	4193413.3	6.9	3.66	0.85	1.70	NO	
L0014307	0	0.22624E-02 653710.6	4193411.6	6.9	3.66	0.85	1.70	NO	
L0014308	0	0.22624E-02 653709.9	4193409.9	6.9	3.66	0.85	1.70	NO	
L0014309	0	0.22624E-02 653709.2	4193408.2	6.9	3.66	0.85	1.70	NO	
L0014310	0	0.22624E-02 653708.5	4193406.5	6.9	3.66	0.85	1.70	NO	
L0014311	0	0.22624E-02 653707.8	4193404.8	6.9	3.66	0.85	1.70	NO	
L0014312	0	0.22624E-02 653707.1	4193403.1	6.9	3.66	0.85	1.70	NO	
L0014313	0	0.22624E-02 653706.4	4193401.4	6.9	3.66	0.85	1.70	NO	
L0014314	0	0.22624E-02 653705.7	4193399.7	7.0	3.66	0.85	1.70	NO	
L0014315	0	0.22624E-02 653705.0	4193398.0	7.0	3.66	0.85	1.70	NO	
L0014316	0	0.22624E-02 653704.3	4193396.4	7.0	3.66	0.85	1.70	NO	
L0014317	0	0.22624E-02 653703.6	4193394.7	7.0	3.66	0.85	1.70	NO	
L0014318	0	0.22624E-02 653702.9	4193393.0	7.0	3.66	0.85	1.70	NO	
L0014319	0	0.22624E-02 653702.2	4193391.3	7.0	3.66	0.85	1.70	NO	

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE			BASE RELEASE		INIT.		INIT.		URBAN EMISSION RATE	
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY

L0014320	0	0.22624E-02	653701.5	4193389.6	7.0	3.66	0.85	1.70	NO	
L0014321	0	0.22624E-02	653700.8	4193387.9	7.0	3.66	0.85	1.70	NO	
L0014322	0	0.22624E-02	653700.1	4193386.2	7.1	3.66	0.85	1.70	NO	
L0014323	0	0.22624E-02	653699.4	4193384.5	7.1	3.66	0.85	1.70	NO	
L0014324	0	0.22624E-02	653698.7	4193382.8	7.1	3.66	0.85	1.70	NO	
L0014325	0	0.22624E-02	653698.0	4193381.1	7.1	3.66	0.85	1.70	NO	
L0014326	0	0.22624E-02	653697.3	4193379.4	7.1	3.66	0.85	1.70	NO	
L0014327	0	0.22624E-02	653696.6	4193377.8	7.1	3.66	0.85	1.70	NO	
L0014328	0	0.22624E-02	653695.9	4193376.1	7.2	3.66	0.85	1.70	NO	

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs																																																																																																																																																															
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SLINE1	L0008807	,	L0008808	,	L0008809	,	L0008810	,	L0008811	,	L0008812	,	L0008813	,	L0008814	,	L0008815	,	L0008816	,	L0008817	,	L0008818	,	L0008819	,	L0008820	,	L0008821	,	L0008822	,	L0008823	,	L0008824	,	L0008825	,	L0008826	,	L0008827	,	L0008828	,	L0008829	,	L0008830	,	L0008831	,	L0008832	,	L0008833	,	L0008834	,	L0008835	,	L0008836	,	L0008837	,	L0008838	,	L0008839	,	L0008840	,	L0008841	,	L0008842	,	L0008843	,	L0008844	,	L0008845	,	L0008846	,	L0008847	,	L0008848	,	L0008849	,	L0008850	,	L0008851	,	L0008852	,	L0008853	,	L0008854	,	L0008855	,	L0008856	,	L0008857	,	L0008858	,	L0008859	,	L0008860	,	L0008861	,	L0008862	,	L0008863	,	L0008864	,	L0008865	,	L0008866	,	L0008867	,	L0008868	,	L0008869	,	L0008870	,	L0008871	,	L0008872	,	L0008873	,	L0008874	,	L0008875	,	L0008876	,	L0008877	,	L0008878	,	L0008879	,	L0008880	,	L0008881	,	L0008882	,	L0008883	,	L0008884	,	L0008885	,	L0008886	,

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L0008895 , L0008896 , L0008897 , L0008898 , L0008899 , L0008900 , L0008901 , L0008902 ,
L0008903 , L0008904 , L0008905 , L0008906 , L0008907 , L0008908 , L0008909 , L0008910 ,
L0008911 , L0008912 , L0008913 , L0008914 , L0008915 , L0008916 , L0008917 , L0008918 ,
L0008919 , L0008920 , L0008921 , L0008922 , L0008923 , L0008924 , L0008925 , L0008926 ,
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L0008935 , L0008936 , L0008937 , L0008938 , L0008939 , L0008940 , L0008941 , L0008942 ,
L0008943 , L0008944 , L0008945 , L0008946 , L0008947 , L0008948 , L0008949 , L0008950 ,
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*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs						
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L0008975	, L0008976	, L0008977	, L0008978	, L0008979	, L0008980	, L0008981	, L0008982
L0008983	, L0008984	, L0008985	, L0008986	, L0008987	, L0008988	, L0008989	, L0008990
L0008991	, L0008992	, L0008993	, L0008994	, L0008995	, L0008996	, L0008997	, L0008998
L0008999	, L0009000	, L0009001	, L0009002	, L0009003	, L0009004	, L0009005	, L0009006
L0009007	, L0009008	, L0009009	, L0009010	, L0009011	, L0009012	, L0009013	, L0009014
L0009015	, L0009016	, L0009017	, L0009018	, L0009019	, L0009020	, L0009021	, L0009022
L0009023	, L0009024	, L0009025	, L0009026	, L0009027	, L0009028	, L0009029	, L0009030
L0009031	, L0009032	, L0009033	, L0009034	, L0009035	, L0009036	, L0009037	, L0009038
L0009039	, L0009040	, L0009041	, L0009042	, L0009043	, L0009044	, L0009045	, L0009046
L0009047	, L0009048	, L0009049	, L0009050	, L0009051	, L0009052	, L0009053	, L0009054
L0009055	, L0009056	, L0009057	, L0009058	, L0009059	, L0009060	, L0009061	, L0009062

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*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs							
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L0009135	, L0009136	, L0009137	, L0009138	, L0009139	, L0009140	, L0009141	, L0009142	,
L0009143	, L0009144	, L0009145	, L0009146	, L0009147	, L0009148	, L0009149	, L0009150	,
L0009151	, L0009152	, L0009153	, L0009154	, L0009155	, L0009156	, L0009157	, L0009158	,
L0009159	, L0009160	, L0009161	, L0009162	, L0009163	, L0009164	, L0009165	, L0009166	,
L0009167	, L0009168	, L0009169	, L0009170	, L0009171	, L0009172	, L0009173	, L0009174	,
L0009175	, L0009176	, L0009177	, L0009178	, L0009179	, L0009180	, L0009181	, L0009182	,
L0009183	, L0009184	, L0009185	, L0009186	, L0009187	, L0009188	, L0009189	, L0009190	,
L0009191	, L0009192	, L0009193	, L0009194	, L0009195	, L0009196	, L0009197	, L0009198	,
L0009199	, L0009200	, L0009201	, L0009202	, L0009203	, L0009204	, L0009205	, L0009206	,
L0009207	, L0009208	, L0009209	, L0009210	, L0009211	, L0009212	, L0009213	, L0009214	,
L0009215	, L0009216	, L0009217	, L0009218	, L0009219	, L0009220	, L0009221	, L0009222	,
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L0009231	, L0009232	, L0009233	, L0009234	, L0009235	, L0009236	, L0009237	, L0009238	,

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*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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L0009303 , L0009304 , L0009305 , L0009306 , L0009307 , L0009308 , L0009309 , L0009310 ,	
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*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22	

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID

SOURCE IDs

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID

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*** AERMOD - VERSION 19191 *** ** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID

SOURCE IDs

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*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs							
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L0013730	, L0013731	, L0013732	, L0013733	, L0013734	, L0013735	, L0013736	, L0013737	,
L0013738	, L0013739	, L0013740	, L0013741	, L0013742	, L0013743	, L0013744	, L0013745	,
L0013746	, L0013747	, L0013748	, L0013749	, L0013750	, L0013751	, L0013752	, L0013753	,
L0013754	, L0013755	, L0013756	, L0013757	, L0013758	, L0013759	, L0013760	, L0013761	,
L0013762	, L0013763	, L0013764	, L0013765	, L0013766	, L0013767	, L0013768	, L0013769	,
L0013770	, L0013771	, L0013772	, L0013773	, L0013774	, L0013775	, L0013776	, L0013777	,
L0013778	, L0013779	, L0013780	, L0013781	, L0013782	, L0013783	, L0013784	, L0013785	,
L0013786	, L0013787	, L0013788	, L0013789	, L0013790	, L0013791	, L0013792	, L0013793	,
L0013794	, L0013795	, L0013796	, L0013797	, L0013798	, L0013799	, L0013800	, L0013801	,
L0013802	, L0013803	, L0013804	, L0013805	, L0013806	, L0013807	, L0013808	, L0013809	,
L0013810	, L0013811	, L0013812	, L0013813	, L0013814	, L0013815	, L0013816	, L0013817	,
L0013818	, L0013819	, L0013820	, L0013821	, L0013822	, L0013823	, L0013824	, L0013825	,
L0013826	, L0013827	, L0013828	, L0013829	, L0013830	, L0013831	, L0013832	, L0013833	,
L0013834	, L0013835	, L0013836	, L0013837	, L0013838	, L0013839	, L0013840	, L0013841	,
L0013842	, L0013843	, L0013844	, L0013845	, L0013846	, L0013847	, L0013848	, L0013849	,
L0013850	, L0013851	, L0013852	, L0013853	, L0013854	, L0013855	, L0013856	, L0013857	,
L0013858	, L0013859	, L0013860	, L0013861	, L0013862	, L0013863	, L0013864	, L0013865	,
L0013866	, L0013867	, L0013868	, L0013869	, L0013870	, L0013871	, L0013872	, L0013873	,
L0013874	, L0013875	, L0013876	, L0013877	, L0013878	, L0013879	, L0013880	, L0013881	,

L0013882 , L0013883 , L0013884 , L0013885 , L0013886 ,

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs							
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SLINE14 L0013887 ,L0013888 ,L0013889 ,L0013890 ,L0013891 ,L0013892 ,L0013893 ,L0013894

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L0013903 ,L0013904 ,L0013905 ,L0013906 ,L0013907 ,L0013908 ,L0013909 ,L0013910 ,
L0013911 ,L0013912 ,L0013913 ,L0013914 ,L0013915 ,L0013916 ,L0013917 ,L0013918 ,
L0013919 ,L0013920 ,L0013921 ,L0013922 ,L0013923 ,L0013924 ,L0013925 ,L0013926 ,
L0013927 ,L0013928 ,L0013929 ,L0013930 ,L0013931 ,L0013932 ,L0013933 ,L0013934 ,
L0013935 ,L0013936 ,L0013937 ,L0013938 ,L0013939 ,L0013940 ,L0013941 ,L0013942 ,
L0013943 ,L0013944 ,L0013945 ,L0013946 ,L0013947 ,L0013948 ,L0013949 ,L0013950 ,
L0013951 ,L0013952 ,L0013953 ,L0013954 ,L0013955 ,L0013956 ,L0013957 ,L0013958 ,
L0013959 ,L0013960 ,L0013961 ,L0013962 ,L0013963 ,L0013964 ,L0013965 ,L0013966 ,
L0013967 ,L0013968 ,L0013969 ,L0013970 ,L0013971 ,L0013972 ,L0013973 ,L0013974 ,
L0013975 ,L0013976 ,L0013977 ,L0013978 ,L0013979 ,L0013980 ,L0013981 ,L0013982 ,
L0013983 ,L0013984 ,L0013985 ,L0013986 ,L0013987 ,L0013988 ,L0013989 ,L0013990 ,
L0013991 ,L0013992 ,L0013993 ,L0013994 ,L0013995 ,L0013996 ,L0013997 ,L0013998 ,
L0013999 ,L0014000 ,L0014001 ,L0014002 ,L0014003 ,L0014004 ,L0014005 ,L0014006 ,
L0014007 ,L0014008 ,L0014009 ,L0014010 ,L0014011 ,L0014012 ,L0014013 ,L0014014 ,
L0014015 ,L0014016 ,L0014017 ,L0014018 ,L0014019 ,L0014020 ,L0014021 ,L0014022 ,
L0014023 ,L0014024 ,L0014025 ,L0014026 ,L0014027 ,L0014028 ,L0014029 ,L0014030 ,
L0014031 ,L0014032 ,L0014033 ,L0014034 ,L0014035 ,L0014036 ,L0014037 ,L0014038 ,
L0014039 ,L0014040 ,L0014041 ,L0014042 ,L0014043 ,L0014044 ,L0014045 ,L0014046 ,

*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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L0014047 ,L0014048 ,L0014049 ,L0014050 ,L0014051 ,L0014052 ,L0014053 ,L0014054 ,

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L0014063 , L0014064 , L0014065 , L0014066 , L0014067 , L0014068 , L0014069 , L0014070 ,
L0014071 , L0014072 , L0014073 , L0014074 , L0014075 , L0014076 , L0014077 , L0014078 ,
L0014079 , L0014080 , L0014081 , L0014082 , L0014083 , L0014084 , L0014085 , L0014086 ,
L0014087 , L0014088 , L0014089 , L0014090 , L0014091 , L0014092 , L0014093 , L0014094 ,
L0014095 , L0014096 , L0014097 , L0014098 , L0014099 , L0014100 , L0014101 , L0014102 ,
L0014103 , L0014104 , L0014105 , L0014106 , L0014107 , L0014108 , L0014109 , L0014110 ,
L0014111 , L0014112 , L0014113 , L0014114 , L0014115 , L0014116 , L0014117 , L0014118 ,
L0014119 , L0014120 , L0014121 , L0014122 , L0014123 , L0014124 , L0014125 , L0014126 ,
L0014127 , L0014128 , L0014129 , L0014130 , L0014131 , L0014132 , L0014133 , L0014134 ,
L0014135 , L0014136 , L0014137 , L0014138 , L0014139 , L0014140 , L0014141 , L0014142 ,
L0014143 , L0014144 , L0014145 , L0014146 , L0014147 , L0014148 , L0014149 , L0014150 ,
L0014151 , L0014152 , L0014153 , L0014154 , L0014155 , L0014156 , L0014157 , L0014158 ,
L0014159 , L0014160 , L0014161 , L0014162 , L0014163 , L0014164 , L0014165 , L0014166 ,
L0014167 , L0014168 , L0014169 , L0014170 , L0014171 , L0014172 , L0014173 , L0014174 ,
L0014175 , L0014176 , L0014177 , L0014178 , L0014179 , L0014180 , L0014181 , L0014182 ,
L0014183 , L0014184 , L0014185 , L0014186 , L0014187 , L0014188 , L0014189 , L0014190 ,
L0014191 , L0014192 , L0014193 , L0014194 , L0014195 , L0014196 , L0014197 , L0014198 ,
L0014199 , L0014200 , L0014201 , L0014202 , L0014203 , L0014204 , L0014205 , L0014206 ,

*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID

SOURCE IDs

L0014207 , L0014208 , L0014209 , L0014210 , L0014211 , L0014212 , L0014213 , L0014214 ,
L0014215 , L0014216 , L0014217 , L0014218 , L0014219 , L0014220 , L0014221 , L0014222 ,
L0014223 , L0014224 , L0014225 , L0014226 , L0014227 , L0014228 , L0014229 , L0014230 ,

L0014231 , L0014232 , L0014233 , L0014234 , L0014235 , L0014236 , L0014237 , L0014238 ,
L0014239 , L0014240 , L0014241 , L0014242 , L0014243 , L0014244 , L0014245 , L0014246 ,
L0014247 , L0014248 , L0014249 , L0014250 , L0014251 , L0014252 , L0014253 , L0014254 ,
L0014255 , L0014256 , L0014257 , L0014258 , L0014259 , L0014260 , L0014261 , L0014262 ,
L0014263 , L0014264 , L0014265 , L0014266 , L0014267 , L0014268 , L0014269 , L0014270 ,
L0014271 , L0014272 , L0014273 , L0014274 , L0014275 , L0014276 , L0014277 , L0014278 ,
L0014279 , L0014280 , L0014281 , L0014282 , L0014283 , L0014284 , L0014285 , L0014286 ,
L0014287 , L0014288 , L0014289 , L0014290 , L0014291 , L0014292 , L0014293 , L0014294 ,
L0014295 , L0014296 , L0014297 , L0014298 , L0014299 , L0014300 , L0014301 , L0014302 ,
L0014303 , L0014304 , L0014305 , L0014306 , L0014307 , L0014308 , L0014309 , L0014310 ,
L0014311 , L0014312 , L0014313 , L0014314 , L0014315 , L0014316 , L0014317 , L0014318 ,
L0014319 , L0014320 , L0014321 , L0014322 , L0014323 , L0014324 , L0014325 , L0014326 ,
L0014327 , L0014328 ,

SLINE2 L0009937 , L0009938 , L0009939 , L0009940 , L0009941 , L0009942 , L0009943 , L0009944 ,

L0009945 , L0009946 , L0009947 , L0009948 , L0009949 , L0009950 , L0009951 , L0009952 ,

L0009953 , L0009954 , L0009955 , L0009956 , L0009957 , L0009958 , L0009959 , L0009960 ,

L0009961 , L0009962 , L0009963 , L0009964 , L0009965 , L0009966 , L0009967 , L0009968 ,

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID

SOURCE IDs

L0009969 , L0009970 , L0009971 , L0009972 , L0009973 , L0009974 , L0009975 , L0009976 ,

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L0009993 , L0009994 , L0009995 , L0009996 , L0009997 , L0009998 , L0009999 , L0010000 ,

L0010001 , L0010002 , L0010003 , L0010004 , L0010005 , L0010006 , L0010007 , L0010008 ,

L0010009 , L0010010 , L0010011 , L0010012 , L0010013 , L0010014 , L0010015 , L0010016 ,
L0010017 , L0010018 , L0010019 , L0010020 , L0010021 , L0010022 , L0010023 , L0010024 ,
L0010025 , L0010026 , L0010027 , L0010028 , L0010029 , L0010030 , L0010031 , L0010032 ,
L0010033 , L0010034 , L0010035 , L0010036 , L0010037 , L0010038 , L0010039 , L0010040 ,
L0010041 , L0010042 , L0010043 , L0010044 , L0010045 , L0010046 , L0010047 , L0010048 ,
L0010049 , L0010050 , L0010051 , L0010052 , L0010053 , L0010054 , L0010055 , L0010056 ,
L0010057 , L0010058 , L0010059 , L0010060 , L0010061 , L0010062 , L0010063 , L0010064 ,
L0010065 , L0010066 , L0010067 , L0010068 , L0010069 , L0010070 , L0010071 , L0010072 ,
L0010073 , L0010074 , L0010075 , L0010076 , L0010077 , L0010078 , L0010079 , L0010080 ,
L0010081 , L0010082 , L0010083 , L0010084 , L0010085 , L0010086 , L0010087 , L0010088 ,
L0010089 , L0010090 , L0010091 , L0010092 , L0010093 , L0010094 , L0010095 , L0010096 ,
L0010097 , L0010098 , L0010099 , L0010100 , L0010101 , L0010102 , L0010103 , L0010104 ,
L0010105 , L0010106 , L0010107 , L0010108 , L0010109 , L0010110 , L0010111 , L0010112 ,
L0010113 , L0010114 , L0010115 , L0010116 , L0010117 , L0010118 , L0010119 , L0010120 ,
L0010121 , L0010122 , L0010123 , L0010124 , L0010125 , L0010126 , L0010127 , L0010128 ,

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22 *** 12:37:56
*** AERMET - VERSION 18081 *** ***

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs							
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L0010129	, L0010130	, L0010131	, L0010132	, L0010133	, L0010134	, L0010135	, L0010136	,
L0010137	, L0010138	, L0010139	, L0010140	, L0010141	, L0010142	, L0010143	, L0010144	,
L0010145	, L0010146	, L0010147	, L0010148	, L0010149	, L0010150	, L0010151	, L0010152	,
L0010153	, L0010154	, L0010155	, L0010156	, L0010157	, L0010158	, L0010159	, L0010160	,
L0010161	, L0010162	, L0010163	, L0010164	, L0010165	, L0010166	, L0010167	, L0010168	,
L0010169	, L0010170	, L0010171	, L0010172	, L0010173	, L0010174	, L0010175	, L0010176	,
L0010177	, L0010178	, L0010179	, L0010180	, L0010181	, L0010182	, L0010183	, L0010184	,

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L0010193 , L0010194 , L0010195 , L0010196 , L0010197 , L0010198 , L0010199 , L0010200 ,
L0010201 , L0010202 , L0010203 , L0010204 , L0010205 , L0010206 , L0010207 , L0010208 ,
L0010209 , L0010210 , L0010211 , L0010212 ,
SLINE3 L0010213 , L0010214 , L0010215 , L0010216 , L0010217 , L0010218 , L0010219 , L0010220 ,
L0010221 , L0010222 , L0010223 , L0010224 , L0010225 , L0010226 , L0010227 , L0010228 ,
L0010229 , L0010230 , L0010231 , L0010232 , L0010233 , L0010234 , L0010235 , L0010236 ,
L0010237 , L0010238 , L0010239 , L0010240 , L0010241 , L0010242 , L0010243 , L0010244 ,
L0010245 , L0010246 , L0010247 , L0010248 , L0010249 , L0010250 , L0010251 , L0010252 ,
L0010253 , L0010254 , L0010255 , L0010256 , L0010257 , L0010258 , L0010259 , L0010260 ,
L0010261 , L0010262 , L0010263 , L0010264 , L0010265 , L0010266 , L0010267 , L0010268 ,
L0010269 , L0010270 , L0010271 , L0010272 , L0010273 , L0010274 , L0010275 , L0010276 ,
L0010277 , L0010278 , L0010279 , L0010280 , L0010281 , L0010282 , L0010283 , L0010284 ,
*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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L0010285 , L0010286 , L0010287 , L0010288 , L0010289 , L0010290 , L0010291 , L0010292 ,	
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L0010301 , L0010302 , L0010303 , L0010304 , L0010305 , L0010306 , L0010307 , L0010308 ,	
L0010309 , L0010310 , L0010311 , L0010312 , L0010313 , L0010314 , L0010315 , L0010316 ,	
L0010317 , L0010318 , L0010319 , L0010320 , L0010321 , L0010322 , L0010323 , L0010324 ,	
L0010325 , L0010326 , L0010327 , L0010328 , L0010329 , L0010330 , L0010331 , L0010332 ,	
L0010333 , L0010334 , L0010335 , L0010336 , L0010337 , L0010338 , L0010339 , L0010340 ,	
L0010341 , L0010342 , L0010343 , L0010344 , L0010345 , L0010346 , L0010347 , L0010348 ,	
L0010349 , L0010350 , L0010351 , L0010352 , L0010353 , L0010354 , L0010355 , L0010356 ,	

L0010357 , L0010358 , L0010359 , L0010360 , L0010361 , L0010362 , L0010363 , L0010364 ,
L0010365 , L0010366 , L0010367 , L0010368 , L0010369 , L0010370 , L0010371 , L0010372 ,
L0010373 , L0010374 , L0010375 , L0010376 , L0010377 , L0010378 , L0010379 , L0010380 ,
L0010381 , L0010382 , L0010383 , L0010384 , L0010385 , L0010386 , L0010387 , L0010388 ,
L0010389 , L0010390 , L0010391 , L0010392 , L0010393 , L0010394 , L0010395 , L0010396 ,
L0010397 , L0010398 , L0010399 , L0010400 , L0010401 , L0010402 , L0010403 , L0010404 ,
L0010405 , L0010406 , L0010407 , L0010408 , L0010409 , L0010410 , L0010411 , L0010412 ,
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L0010421 , L0010422 , L0010423 , L0010424 , L0010425 , L0010426 , L0010427 , L0010428 ,
L0010429 , L0010430 , L0010431 , L0010432 , L0010433 , L0010434 , L0010435 , L0010436 ,
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*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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L0010445 , L0010446 , L0010447 , L0010448 , L0010449 , L0010450 , L0010451 , L0010452 ,	
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L0010469 , L0010470 , L0010471 , L0010472 , L0010473 , L0010474 , L0010475 , L0010476 ,	
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L0010517 , L0010518 , L0010519 , L0010520 , L0010521 , L0010522 , L0010523 , L0010524 ,	

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L0010533 , L0010534 , L0010535 , L0010536 , L0010537 , L0010538 , L0010539 , L0010540 ,
L0010541 , L0010542 , L0010543 , L0010544 , L0010545 , L0010546 , L0010547 , L0010548 ,
L0010549 , L0010550 , L0010551 ,
SLINE4 L0010552 , L0010553 , L0010554 , L0010555 , L0010556 , L0010557 , L0010558 , L0010559 ,
L0010560 , L0010561 , L0010562 , L0010563 , L0010564 , L0010565 , L0010566 , L0010567 ,
L0010568 , L0010569 , L0010570 , L0010571 , L0010572 , L0010573 , L0010574 , L0010575 ,
L0010576 , L0010577 , L0010578 , L0010579 , L0010580 , L0010581 , L0010582 , L0010583 ,
L0010584 , L0010585 , L0010586 , L0010587 , L0010588 , L0010589 , L0010590 , L0010591 ,
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*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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L0010600 , L0010601 , L0010602 , L0010603 , L0010604 , L0010605 , L0010606 , L0010607 ,	
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L0010616 , L0010617 , L0010618 , L0010619 , L0010620 , L0010621 , L0010622 , L0010623 ,	
L0010624 , L0010625 , L0010626 , L0010627 , L0010628 , L0010629 , L0010630 , L0010631 ,	
L0010632 , L0010633 , L0010634 , L0010635 , L0010636 , L0010637 , L0010638 , L0010639 ,	
L0010640 , L0010641 , L0010642 , L0010643 , L0010644 , L0010645 , L0010646 , L0010647 ,	
L0010648 , L0010649 , L0010650 , L0010651 , L0010652 , L0010653 , L0010654 , L0010655 ,	
L0010656 , L0010657 , L0010658 , L0010659 , L0010660 , L0010661 , L0010662 , L0010663 ,	
L0010664 , L0010665 , L0010666 , L0010667 , L0010668 , L0010669 , L0010670 , L0010671 ,	
L0010672 , L0010673 , L0010674 , L0010675 , L0010676 , L0010677 , L0010678 , L0010679 ,	
L0010680 , L0010681 , L0010682 , L0010683 , L0010684 , L0010685 , L0010686 , L0010687 ,	
L0010688 , L0010689 , L0010690 , L0010691 , L0010692 , L0010693 , L0010694 , L0010695 ,	

L0010696 , L0010697 , L0010698 , L0010699 , L0010700 , L0010701 , L0010702 , L0010703 ,
L0010704 , L0010705 , L0010706 , L0010707 , L0010708 , L0010709 , L0010710 , L0010711 ,
L0010712 , L0010713 , L0010714 , L0010715 , L0010716 , L0010717 , L0010718 , L0010719 ,
L0010720 , L0010721 , L0010722 , L0010723 , L0010724 , L0010725 , L0010726 , L0010727 ,
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L0010736 , L0010737 , L0010738 , L0010739 , L0010740 , L0010741 , L0010742 , L0010743 ,
L0010744 , L0010745 , L0010746 , L0010747 , L0010748 , L0010749 , L0010750 , L0010751 ,
L0010752 , L0010753 , L0010754 , L0010755 , L0010756 , L0010757 , L0010758 , L0010759 ,
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs							
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L0010760	, L0010761	, L0010762	, L0010763	, L0010764	, L0010765	, L0010766	, L0010767	,
L0010768	, L0010769	, L0010770	, L0010771	, L0010772	, L0010773	, L0010774	, L0010775	,
L0010776	, L0010777	, L0010778	, L0010779	, L0010780	, L0010781	, L0010782	, L0010783	,
L0010784	, L0010785	, L0010786	, L0010787	, L0010788	, L0010789	, L0010790	, L0010791	,
L0010792	, L0010793	, L0010794	, L0010795	, L0010796	, L0010797	, L0010798	, L0010799	,
L0010800	, L0010801	, L0010802	, L0010803	, L0010804	, L0010805	, L0010806	, L0010807	,
L0010808	, L0010809	, L0010810	, L0010811	, L0010812	, L0010813	, L0010814	, L0010815	,
L0010816	, L0010817	, L0010818	, L0010819	, L0010820	, L0010821	, L0010822	, L0010823	,
L0010824	, L0010825	, L0010826	, L0010827	, L0010828	, L0010829	, L0010830	, L0010831	,
L0010832	, L0010833	, L0010834	, L0010835	, L0010836	, L0010837	, L0010838	, L0010839	,
L0010840	, L0010841	, L0010842	, L0010843	, L0010844	, L0010845	, L0010846	, L0010847	,
L0010848	, L0010849	, L0010850	, L0010851	, L0010852	, L0010853	, L0010854	, L0010855	,
L0010856	, L0010857	, L0010858	, L0010859	, L0010860	, L0010861	, L0010862	, L0010863	,
L0010864	, L0010865	, L0010866	, L0010867	, L0010868	, L0010869	, L0010870	, L0010871	,

L0010872 , L0010873 , L0010874 , L0010875 , L0010876 , L0010877 , L0010878 , L0010879 ,
L0010880 , L0010881 , L0010882 , L0010883 , L0010884 , L0010885 , L0010886 , L0010887 ,
L0010888 , L0010889 , L0010890 , L0010891 , L0010892 , L0010893 , L0010894 , L0010895 ,
L0010896 , L0010897 , L0010898 , L0010899 , L0010900 , L0010901 , L0010902 , L0010903 ,
L0010904 , L0010905 , L0010906 , L0010907 , L0010908 , L0010909 , L0010910 , L0010911 ,
L0010912 , L0010913 , L0010914 , L0010915 , L0010916 , L0010917 , L0010918 , L0010919 ,
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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L0010920 , L0010921 , L0010922 , L0010923 , L0010924 , L0010925 , L0010926 , L0010927 ,	
L0010928 , L0010929 , L0010930 , L0010931 , L0010932 , L0010933 , L0010934 , L0010935 ,	
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L0010944 , L0010945 ,	
SLINE5 L0010946 , L0010947 , L0010948 , L0010949 , L0010950 , L0010951 , L0010952 , L0010953 ,	
L0010954 , L0010955 , L0010956 , L0010957 , L0010958 , L0010959 , L0010960 , L0010961 ,	
L0010962 , L0010963 , L0010964 , L0010965 , L0010966 , L0010967 , L0010968 , L0010969 ,	
L0010970 , L0010971 , L0010972 , L0010973 , L0010974 , L0010975 , L0010976 , L0010977 ,	
L0010978 , L0010979 , L0010980 , L0010981 , L0010982 , L0010983 , L0010984 , L0010985 ,	
L0010986 , L0010987 , L0010988 , L0010989 , L0010990 , L0010991 , L0010992 , L0010993 ,	
L0010994 , L0010995 , L0010996 , L0010997 , L0010998 , L0010999 , L0011000 , L0011001 ,	
L0011002 , L0011003 , L0011004 , L0011005 , L0011006 , L0011007 , L0011008 , L0011009 ,	
L0011010 , L0011011 , L0011012 , L0011013 , L0011014 , L0011015 , L0011016 , L0011017 ,	
L0011018 , L0011019 , L0011020 , L0011021 , L0011022 , L0011023 , L0011024 , L0011025 ,	
L0011026 , L0011027 , L0011028 , L0011029 , L0011030 , L0011031 , L0011032 , L0011033 ,	
L0011034 , L0011035 , L0011036 , L0011037 , L0011038 , L0011039 , L0011040 , L0011041 ,	

L0011042 , L0011043 , L0011044 , L0011045 , L0011046 , L0011047 , L0011048 , L0011049 ,
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L0011058 , L0011059 , L0011060 , L0011061 , L0011062 , L0011063 , L0011064 , L0011065 ,
L0011066 , L0011067 , L0011068 , L0011069 , L0011070 , L0011071 , L0011072 , L0011073 ,
*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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L0011074 , L0011075 , L0011076 , L0011077 , L0011078 , L0011079 , L0011080 , L0011081 ,	
L0011082 , L0011083 , L0011084 , L0011085 , L0011086 , L0011087 , L0011088 , L0011089 ,	
L0011090 , L0011091 , L0011092 , L0011093 , L0011094 , L0011095 , L0011096 , L0011097 ,	
L0011098 , L0011099 , L0011100 , L0011101 , L0011102 , L0011103 , L0011104 , L0011105 ,	
L0011106 , L0011107 , L0011108 , L0011109 , L0011110 , L0011111 , L0011112 , L0011113 ,	
L0011114 , L0011115 , L0011116 , L0011117 , L0011118 , L0011119 , L0011120 , L0011121 ,	
L0011122 , L0011123 , L0011124 , L0011125 , L0011126 , L0011127 , L0011128 , L0011129 ,	
L0011130 , L0011131 , L0011132 , L0011133 , L0011134 , L0011135 , L0011136 , L0011137 ,	
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L0011146 , L0011147 , L0011148 , L0011149 , L0011150 , L0011151 , L0011152 , L0011153 ,	
L0011154 , L0011155 , L0011156 , L0011157 , L0011158 , L0011159 , L0011160 , L0011161 ,	
L0011162 , L0011163 , L0011164 , L0011165 , L0011166 , L0011167 , L0011168 , L0011169 ,	
L0011170 , L0011171 , L0011172 , L0011173 , L0011174 , L0011175 , L0011176 , L0011177 ,	
L0011178 , L0011179 , L0011180 , L0011181 , L0011182 , L0011183 , L0011184 , L0011185 ,	
L0011186 , L0011187 , L0011188 , L0011189 , L0011190 , L0011191 , L0011192 , L0011193 ,	
L0011194 , L0011195 , L0011196 , L0011197 , L0011198 , L0011199 , L0011200 , L0011201 ,	
L0011202 , L0011203 , L0011204 , L0011205 , L0011206 , L0011207 , L0011208 , L0011209 ,	
L0011210 , L0011211 , L0011212 , L0011213 , L0011214 , L0011215 , L0011216 , L0011217 ,	

L0011218 , L0011219 , L0011220 , L0011221 , L0011222 , L0011223 , L0011224 , L0011225 ,
L0011226 , L0011227 , L0011228 , L0011229 , L0011230 , L0011231 , L0011232 , L0011233 ,
*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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L0011234 , L0011235 , L0011236 , L0011237 , L0011238 , L0011239 , L0011240 , L0011241 ,	
L0011242 , L0011243 , L0011244 , L0011245 , L0011246 , L0011247 , L0011248 , L0011249 ,	
L0011250 , L0011251 , L0011252 , L0011253 , L0011254 , L0011255 , L0011256 , L0011257 ,	
L0011258 , L0011259 , L0011260 , L0011261 , L0011262 , L0011263 , L0011264 , L0011265 ,	
L0011266 , L0011267 , L0011268 , L0011269 , L0011270 , L0011271 , L0011272 , L0011273 ,	
L0011274 , L0011275 , L0011276 , L0011277 , L0011278 , L0011279 , L0011280 , L0011281 ,	
L0011282 , L0011283 , L0011284 , L0011285 , L0011286 , L0011287 , L0011288 , L0011289 ,	
L0011290 , L0011291 , L0011292 , L0011293 , L0011294 , L0011295 , L0011296 , L0011297 ,	
L0011298 , L0011299 , L0011300 , L0011301 , L0011302 , L0011303 , L0011304 , L0011305 ,	
L0011306 , L0011307 , L0011308 , L0011309 , L0011310 , L0011311 , L0011312 , L0011313 ,	
L0011314 , L0011315 , L0011316 , L0011317 , L0011318 , L0011319 , L0011320 , L0011321 ,	
L0011322 , L0011323 , L0011324 , L0011325 , L0011326 , L0011327 , L0011328 , L0011329 ,	
L0011330 , L0011331 , L0011332 , L0011333 , L0011334 , L0011335 , L0011336 , L0011337 ,	
L0011338 , L0011339 , L0011340 , L0011341 , L0011342 , L0011343 , L0011344 , L0011345 ,	
L0011346 , L0011347 , L0011348 , L0011349 , L0011350 , L0011351 , L0011352 , L0011353 ,	
L0011354 , L0011355 , L0011356 , L0011357 , L0011358 , L0011359 , L0011360 , L0011361 ,	
L0011362 , L0011363 , L0011364 , L0011365 , L0011366 , L0011367 , L0011368 , L0011369 ,	
L0011370 , L0011371 , L0011372 , L0011373 , L0011374 , L0011375 , L0011376 , L0011377 ,	
L0011378 , L0011379 , L0011380 , L0011381 , L0011382 , L0011383 , L0011384 , L0011385 ,	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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L0011403 , L0011404 , L0011405 , L0011406 , L0011407 , L0011408 , L0011409 , L0011410 ,	
L0011411 , L0011412 , L0011413 , L0011414 , L0011415 , L0011416 , L0011417 , L0011418 ,	
L0011419 , L0011420 , L0011421 , L0011422 , L0011423 , L0011424 , L0011425 , L0011426 ,	
L0011427 , L0011428 , L0011429 , L0011430 , L0011431 , L0011432 , L0011433 , L0011434 ,	
L0011435 , L0011436 , L0011437 , L0011438 , L0011439 , L0011440 , L0011441 , L0011442 ,	
L0011443 , L0011444 , L0011445 , L0011446 , L0011447 , L0011448 , L0011449 , L0011450 ,	
L0011451 , L0011452 , L0011453 , L0011454 , L0011455 , L0011456 , L0011457 , L0011458 ,	
L0011459 , L0011460 , L0011461 , L0011462 , L0011463 , L0011464 , L0011465 , L0011466 ,	
L0011467 , L0011468 , L0011469 , L0011470 , L0011471 , L0011472 , L0011473 , L0011474 ,	
L0011475 , L0011476 , L0011477 , L0011478 , L0011479 , L0011480 , L0011481 , L0011482 ,	
L0011483 , L0011484 , L0011485 , L0011486 , L0011487 , L0011488 , L0011489 , L0011490 ,	
L0011491 , L0011492 , L0011493 , L0011494 , L0011495 , L0011496 , L0011497 , L0011498 ,	
L0011499 , L0011500 , L0011501 , L0011502 , L0011503 , L0011504 , L0011505 , L0011506 ,	
L0011507 , L0011508 , L0011509 , L0011510 , L0011511 , L0011512 , L0011513 , L0011514 ,	
L0011515 , L0011516 , L0011517 , L0011518 , L0011519 , L0011520 , L0011521 , L0011522 ,	
L0011523 , L0011524 , L0011525 , L0011526 , L0011527 , L0011528 , L0011529 , L0011530 ,	
L0011531 , L0011532 , L0011533 , L0011534 , L0011535 , L0011536 , L0011537 , L0011538 ,	
L0011539 , L0011540 , L0011541 , L0011542 , L0011543 , L0011544 , L0011545 , L0011546 ,	
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22	

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID

SOURCE IDs

L0011547 , L0011548 , L0011549 , L0011550 ,

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L0011567 , L0011568 , L0011569 , L0011570 , L0011571 , L0011572 , L0011573 , L0011574 ,

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L0011583 , L0011584 , L0011585 , L0011586 , L0011587 , L0011588 , L0011589 , L0011590 ,

L0011591 , L0011592 , L0011593 , L0011594 , L0011595 , L0011596 , L0011597 , L0011598 ,

L0011599 , L0011600 , L0011601 , L0011602 , L0011603 , L0011604 , L0011605 , L0011606 ,

L0011607 , L0011608 , L0011609 , L0011610 , L0011611 , L0011612 , L0011613 , L0011614 ,

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L0011623 , L0011624 , L0011625 , L0011626 , L0011627 , L0011628 , L0011629 , L0011630 ,

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L0011639 , L0011640 , L0011641 , L0011642 , L0011643 , L0011644 , L0011645 , L0011646 ,

L0011647 , L0011648 , L0011649 , L0011650 , L0011651 , L0011652 , L0011653 , L0011654 ,

L0011655 , L0011656 , L0011657 , L0011658 , L0011659 , L0011660 , L0011661 , L0011662 ,

L0011663 , L0011664 , L0011665 , L0011666 , L0011667 , L0011668 , L0011669 , L0011670 ,

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SLINE8 L0011673 , L0011674 , L0011675 , L0011676 , L0011677 , L0011678 , L0011679 , L0011680 ,

L0011681 , L0011682 , L0011683 , L0011684 , L0011685 , L0011686 , L0011687 , L0011688 ,

L0011689 , L0011690 , L0011691 , L0011692 , L0011693 , L0011694 , L0011695 , L0011696 ,

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID

SOURCE IDs

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L0011721 , L0011722 , L0011723 , L0011724 , L0011725 , L0011726 , L0011727 , L0011728 ,
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L0011737 , L0011738 , L0011739 , L0011740 ,

SLINE9 L0011741 , L0011742 , L0011743 , L0011744 , L0011745 , L0011746 , L0011747 , L0011748 ,
L0011749 , L0011750 , L0011751 , L0011752 , L0011753 , L0011754 , L0011755 , L0011756 ,
L0011757 , L0011758 , L0011759 , L0011760 , L0011761 , L0011762 , L0011763 , L0011764 ,
L0011765 , L0011766 , L0011767 , L0011768 , L0011769 , L0011770 , L0011771 , L0011772 ,
L0011773 , L0011774 , L0011775 , L0011776 , L0011777 , L0011778 , L0011779 , L0011780 ,
L0011781 , L0011782 , L0011783 , L0011784 , L0011785 , L0011786 , L0011787 , L0011788 ,
L0011789 , L0011790 , L0011791 , L0011792 , L0011793 , L0011794 , L0011795 , L0011796 ,
L0011797 , L0011798 , L0011799 , L0011800 , L0011801 ,

STCK1 STCK1 ,

STCK10 STCK10 ,

STCK11 STCK11 ,

STCK12 STCK12 ,

STCK13 STCK13 ,

STCK14 STCK14 ,

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID

SOURCE IDs

STCK15STCK15,

STCK16STCK16,

STCK17STCK17,

STCK18STCK18,

STCK19STCK19,

STCK2STCK2,

STCK20STCK20,

STCK21STCK21,

STCK22STCK22,

STCK23STCK23,

STCK24STCK24,

STCK25STCK25,

STCK26STCK26,

STCK27STCK27,

STCK28STCK28,

STCK3STCK3,

STCK4STCK4,

STCK5STCK5,

STCK6STCK6,

STCK7STCK7,

*** AERMOD - VERSION 19191 *** ** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID

SOURCE IDs

STCK8 STCK8 ,

STCK9 STCK9 ,

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(656165.7, 4192787.8,	8.1,	8.1,	0.0);	(656126.4, 4192765.0,	8.0,	8.0,	0.0);
(656103.7, 4192731.9,	8.1,	8.1,	0.0);	(656093.3, 4192690.5,	8.2,	8.2,	0.0);
(656217.4, 4192771.2,	8.2,	8.2,	0.0);	(656279.5, 4192760.8,	8.3,	8.3,	0.0);
(656341.6, 4192727.8,	8.6,	8.6,	0.0);	(656366.4, 4192707.1,	8.7,	8.7,	0.0);
(653815.1, 4193437.5,	7.1,	7.1,	0.0);	(653776.4, 4193429.8,	6.8,	6.8,	0.0);
(653798.3, 4193413.0,	7.0,	7.0,	0.0);	(653708.2, 4193118.2,	7.9,	7.9,	0.0);
(653730.1, 4193102.7,	8.0,	8.0,	0.0);	(653753.2, 4193086.0,	8.0,	8.0,	0.0);
(653800.9, 4193053.8,	8.2,	8.2,	0.0);	(653882.0, 4192964.9,	8.3,	8.3,	0.0);
(653907.8, 4192962.3,	8.3,	8.3,	0.0);	(653945.1, 4192954.6,	8.2,	8.2,	0.0);
(654067.5, 4192886.4,	8.1,	8.1,	0.0);	(654108.7, 4192861.9,	8.1,	8.1,	0.0);
(654140.9, 4192841.3,	8.1,	8.1,	0.0);	(654376.5, 4192702.2,	8.2,	8.2,	0.0);
(654399.7, 4192673.9,	8.2,	8.2,	0.0);	(654024.7, 4193417.9,	7.5,	7.5,	0.0);
(653831.8, 4193501.5,	7.5,	7.5,	0.0);	(653915.6, 4193528.1,	7.7,	7.7,	0.0);
(653813.6, 4193608.3,	7.4,	7.4,	0.0);	(653676.8, 4192475.3,	8.1,	8.1,	0.0);
(653976.8, 4192475.3,	8.4,	8.4,	0.0);	(654276.8, 4192475.3,	8.5,	8.5,	0.0);
(654576.8, 4192475.3,	8.4,	8.4,	0.0);	(654876.8, 4192475.3,	8.5,	8.5,	0.0);
(655176.8, 4192475.3,	8.3,	8.3,	0.0);	(655476.8, 4192475.3,	8.3,	8.3,	0.0);
(655776.8, 4192475.3,	8.3,	8.3,	0.0);	(656076.8, 4192475.3,	8.4,	8.4,	0.0);
(656376.8, 4192475.3,	8.8,	8.8,	0.0);	(656676.8, 4192475.3,	9.8,	9.8,	0.0);
(653676.8, 4192775.3,	8.1,	8.1,	0.0);	(653976.8, 4192775.3,	8.3,	8.3,	0.0);
(654276.8, 4192775.3,	8.1,	8.1,	0.0);	(654576.8, 4192775.3,	8.1,	8.1,	0.0);
(654876.8, 4192775.3,	8.2,	8.2,	0.0);	(655176.8, 4192775.3,	8.2,	8.2,	0.0);
(655476.8, 4192775.3,	8.1,	8.1,	0.0);	(655776.8, 4192775.3,	7.9,	7.9,	0.0);
(656076.8, 4192775.3,	7.9,	7.9,	0.0);	(656376.8, 4192775.3,	8.7,	8.7,	0.0);
(656676.8, 4192775.3,	9.7,	9.7,	0.0);	(653676.8, 4193075.3,	7.9,	7.9,	0.0);
(653976.8, 4193075.3,	8.0,	8.0,	0.0);	(654276.8, 4193075.3,	7.8,	7.8,	0.0);
(654576.8, 4193075.3,	8.0,	8.0,	0.0);	(654876.8, 4193075.3,	8.3,	8.3,	0.0);
(655176.8, 4193075.3,	8.3,	8.3,	0.0);	(655476.8, 4193075.3,	8.2,	8.2,	0.0);
(655776.8, 4193075.3,	8.1,	8.1,	0.0);	(656076.8, 4193075.3,	7.4,	7.4,	0.0);
(656376.8, 4193075.3,	7.5,	7.5,	0.0);	(656676.8, 4193075.3,	8.7,	8.7,	0.0);
(653676.8, 4193375.3,	7.2,	7.2,	0.0);	(653976.8, 4193375.3,	7.6,	7.6,	0.0);
(654276.8, 4193375.3,	7.5,	7.5,	0.0);	(654576.8, 4193375.3,	7.9,	7.9,	0.0);
(654876.8, 4193375.3,	8.3,	8.3,	0.0);	(655176.8, 4193375.3,	8.1,	8.1,	0.0);
(655476.8, 4193375.3,	7.4,	7.4,	0.0);	(655776.8, 4193375.3,	8.5,	8.5,	0.0);
(656076.8, 4193375.3,	8.3,	8.3,	0.0);	(656376.8, 4193375.3,	8.5,	8.5,	0.0);
(656676.8, 4193375.3,	9.1,	9.1,	0.0);	(653676.8, 4193675.3,	6.7,	6.7,	0.0);
(653976.8, 4193675.3,	7.5,	7.5,	0.0);	(654276.8, 4193675.3,	6.9,	6.9,	0.0);
(654576.8, 4193675.3,	7.9,	7.9,	0.0);	(654876.8, 4193675.3,	6.8,	6.8,	0.0);
(655176.8, 4193675.3,	6.8,	6.8,	0.0);	(655476.8, 4193675.3,	7.2,	7.2,	0.0);
(655776.8, 4193675.3,	8.5,	8.5,	0.0);	(656076.8, 4193675.3,	8.8,	8.8,	0.0);
(656376.8, 4193675.3,	9.4,	9.4,	0.0);	(656676.8, 4193675.3,	9.1,	9.1,	0.0);
(653676.8, 4193975.3,	6.7,	6.7,	0.0);	(653976.8, 4193975.3,	7.2,	7.2,	0.0);

(654276.8,4193975.3, 7.5, 7.5, 0.0); (654576.8,4193975.3, 6.9, 6.9, 0.0);
(654876.8,4193975.3, 7.1, 7.1, 0.0); (655176.8,4193975.3, 7.4, 7.4, 0.0);
(655476.8,4193975.3, 8.1, 8.1, 0.0); (655776.8,4193975.3, 8.6, 8.6, 0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(656076.8,4193975.3, 9.1, 9.1, 0.0);	(656376.8,4193975.3, 9.6, 9.6, 0.0);
(656676.8,4193975.3, 9.3, 9.3, 0.0);	(653676.8,4194275.3, 6.8, 6.8, 0.0);
(653976.8,4194275.3, 7.4, 7.4, 0.0);	(654276.8,4194275.3, 7.5, 7.5, 0.0);
(654576.8,4194275.3, 7.6, 7.6, 0.0);	(654876.8,4194275.3, 7.5, 7.5, 0.0);
(655176.8,4194275.3, 7.8, 7.8, 0.0);	(655476.8,4194275.3, 8.3, 8.3, 0.0);
(655776.8,4194275.3, 8.7, 8.7, 0.0);	(656076.8,4194275.3, 8.9, 8.9, 0.0);
(656376.8,4194275.3, 9.5, 9.5, 0.0);	(656676.8,4194275.3, 9.5, 9.5, 0.0);
(653676.8,4194575.3, 6.6, 6.6, 0.0);	(653976.8,4194575.3, 7.0, 7.0, 0.0);
(654276.8,4194575.3, 7.4, 7.4, 0.0);	(654576.8,4194575.3, 7.6, 7.6, 0.0);
(654876.8,4194575.3, 7.8, 7.8, 0.0);	(655176.8,4194575.3, 8.0, 8.0, 0.0);
(655476.8,4194575.3, 8.4, 8.4, 0.0);	(655776.8,4194575.3, 8.3, 8.3, 0.0);
(656076.8,4194575.3, 8.2, 8.2, 0.0);	(656376.8,4194575.3, 9.1, 9.1, 0.0);
(656676.8,4194575.3, 9.6, 9.6, 0.0);	(653676.8,4194875.3, 5.2, 5.2, 0.0);
(653976.8,4194875.3, 6.9, 6.9, 0.0);	(654276.8,4194875.3, 7.3, 7.3, 0.0);
(654576.8,4194875.3, 7.7, 7.7, 0.0);	(654876.8,4194875.3, 7.9, 7.9, 0.0);
(655176.8,4194875.3, 8.1, 8.1, 0.0);	(655476.8,4194875.3, 8.3, 8.3, 0.0);
(655776.8,4194875.3, 8.3, 8.3, 0.0);	(656076.8,4194875.3, 8.2, 8.2, 0.0);
(656376.8,4194875.3, 8.8, 8.8, 0.0);	(656676.8,4194875.3, 9.6, 9.6, 0.0);
(653676.8,4195175.3, 6.7, 6.7, 0.0);	(653976.8,4195175.3, 7.0, 7.0, 0.0);
(654276.8,4195175.3, 7.4, 7.4, 0.0);	(654576.8,4195175.3, 7.8, 7.8, 0.0);
(654876.8,4195175.3, 8.1, 8.1, 0.0);	(655176.8,4195175.3, 8.2, 8.2, 0.0);
(655476.8,4195175.3, 8.2, 8.2, 0.0);	(655776.8,4195175.3, 8.3, 8.3, 0.0);
(656076.8,4195175.3, 8.6, 8.6, 0.0);	(656376.8,4195175.3, 9.5, 9.5, 0.0);
(656676.8,4195175.3, 9.6, 9.6, 0.0);	(653676.8,4195475.3, 6.6, 6.6, 0.0);
(653976.8,4195475.3, 7.2, 7.2, 0.0);	(654276.8,4195475.3, 7.6, 7.6, 0.0);
(654576.8,4195475.3, 7.9, 7.9, 0.0);	(654876.8,4195475.3, 8.2, 8.2, 0.0);
(655176.8,4195475.3, 8.3, 8.3, 0.0);	(655476.8,4195475.3, 8.3, 8.3, 0.0);
(655776.8,4195475.3, 8.5, 8.5, 0.0);	(656076.8,4195475.3, 9.0, 9.0, 0.0);
(656376.8,4195475.3, 9.6, 9.6, 0.0);	(656676.8,4195475.3, 9.7, 9.7, 0.0);

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE
PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE	-- RECEPTOR LOCATION --	DISTANCE
ID	XR (METERS) YR (METERS)	(METERS)

13 01 01 1 02 -14.6 0.158 -9.000 -9.000 -999. 152. 27.6 0.04 2.20 1.00 2.37 77. 10.0 273.8 2.0
13 01 01 1 03 -18.4 0.181 -9.000 -9.000 -999. 185. 36.0 0.06 2.20 1.00 2.52 97. 10.0 273.1 2.0
13 01 01 1 04 -6.7 0.105 -9.000 -9.000 -999. 84. 16.0 0.04 2.20 1.00 1.63 349. 10.0 272.5 2.0
13 01 01 1 05 -20.1 0.193 -9.000 -9.000 -999. 203. 40.9 0.04 2.20 1.00 2.86 356. 10.0 274.2 2.0
13 01 01 1 06 -3.9 0.081 -9.000 -9.000 -999. 64. 12.6 0.04 2.20 1.00 1.23 77. 10.0 273.8 2.0
13 01 01 1 07 -18.3 0.180 -9.000 -9.000 -999. 184. 35.8 0.06 2.20 1.00 2.52 255. 10.0 273.1 2.0
13 01 01 1 08 -26.9 0.259 -9.000 -9.000 -999. 316. 73.8 0.08 2.20 0.73 3.29 287. 10.0 274.2 2.0
13 01 01 1 09 -1.9 0.212 -9.000 -9.000 -999. 236. 461.6 0.05 2.20 0.39 2.81 315. 10.0 275.9 2.0
13 01 01 1 10 61.1 0.155 0.630 0.005 150. 147. -5.5 0.04 2.20 0.27 1.60 336. 10.0 277.5 2.0
13 01 01 1 11 110.2 0.238 1.137 0.005 488. 279. -11.2 0.06 2.20 0.23 2.45 228. 10.0 279.9 2.0
13 01 01 1 12 137.1 0.276 1.492 0.008 886. 347. -14.0 0.08 2.20 0.22 2.69 286. 10.0 280.4 2.0
13 01 01 1 13 141.1 0.271 1.531 0.007 929. 339. -12.9 0.05 2.20 0.21 2.88 325. 10.0 282.5 2.0
13 01 01 1 14 121.3 0.232 1.475 0.006 965. 269. -9.4 0.04 2.20 0.22 2.57 356. 10.0 283.8 2.0
13 01 01 1 15 78.7 0.218 1.287 0.005 988. 244. -12.0 0.04 2.20 0.26 2.47 357. 10.0 284.2 2.0
13 01 01 1 16 17.6 0.265 0.783 0.005 993. 327. -96.0 0.03 2.20 0.35 3.59 2. 10.0 284.2 2.0
13 01 01 1 17 -11.2 0.143 -9.000 -9.000 -999. 139. 24.1 0.04 2.20 0.60 2.16 346. 10.0 282.5 2.0
13 01 01 1 18 -8.7 0.125 -9.000 -9.000 -999. 107. 20.6 0.08 2.20 1.00 1.67 273. 10.0 279.2 2.0
13 01 01 1 19 -13.3 0.154 -9.000 -9.000 -999. 145. 26.0 0.06 2.20 1.00 2.15 238. 10.0 278.1 2.0
13 01 01 1 20 -10.2 0.134 -9.000 -9.000 -999. 117. 21.4 0.06 2.20 1.00 1.89 230. 10.0 275.9 2.0
13 01 01 1 21 -12.5 0.148 -9.000 -9.000 -999. 137. 24.2 0.05 2.20 1.00 2.11 300. 10.0 276.4 2.0
13 01 01 1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.05 2.20 1.00 0.00 0. 10.0 275.9 2.0
13 01 01 1 23 -24.0 0.230 -9.000 -9.000 -999. 264. 57.9 0.04 2.20 1.00 3.36 80. 10.0 274.2 2.0
13 01 01 1 24 -16.1 0.169 -9.000 -9.000 -999. 167. 31.3 0.06 2.20 1.00 2.36 100. 10.0 274.2 2.0

First hour of profile data

YR MO DY HR HEIGHT F WDIR WSPD AMB TMP sigmaA sigmaW sigmaV

13 01 01 01 10.0 1 149. 2.78 273.8 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)

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*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE1 ***

INCLUDING SOURCE(S): L0008807 ,L0008808 ,L0008809 ,L0008810 ,L0008811 ,
L0008812 ,L0008813 ,L0008814 ,L0008815 ,L0008816 ,L0008817 ,L0008818 ,L0008819 ,
L0008820 ,L0008821 ,L0008822 ,L0008823 ,L0008824 ,L0008825 ,L0008826 ,L0008827 ,
L0008828 ,L0008829 ,L0008830 ,L0008831 ,L0008832 ,L0008833 ,L0008834 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	1.08192	656126.40	4192764.99	1.06026
656103.65	4192731.89	1.02357	656093.30	4192690.51	0.97759
656217.44	4192771.20	1.05079	656279.50	4192760.85	1.02530
656341.57	4192727.75	0.97524	656366.40	4192707.06	0.94862
653815.06	4193437.51	0.81176	653776.43	4193429.79	0.77699
653798.32	4193413.05	0.78171	653708.18	4193118.16	0.57094

653730.07	4193102.71	0.57301	653753.25	4193085.97	0.57505
653800.90	4193053.77	0.58036	653882.02	4192964.92	0.57504
653907.78	4192962.34	0.58481	653945.12	4192954.62	0.59774
654067.45	4192886.37	0.62167	654108.66	4192861.90	0.62855
654140.85	4192841.30	0.63264	654376.51	4192702.22	0.64851
654399.69	4192673.89	0.63958	654024.74	4193417.88	0.98173
653831.84	4193501.47	0.87514	653915.64	4193528.15	0.98285
653813.62	4193608.32	0.94417	653676.78	4192475.30	0.36799
653976.78	4192475.30	0.43544	654276.78	4192475.30	0.51170
654576.78	4192475.30	0.58033	654876.78	4192475.30	0.65179
655176.78	4192475.30	0.71994	655476.78	4192475.30	0.76641
655776.78	4192475.30	0.78655	656076.78	4192475.30	0.77833
656376.78	4192475.30	0.74925	656676.78	4192475.30	0.71220
653676.78	4192775.30	0.44120	653976.78	4192775.30	0.53493
654276.78	4192775.30	0.65465	654576.78	4192775.30	0.76793
654876.78	4192775.30	0.88619	655176.78	4192775.30	0.99240
655476.78	4192775.30	1.06311	655776.78	4192775.30	1.09789
656076.78	4192775.30	1.08113	656376.78	4192775.30	1.01985
656676.78	4192775.30	0.94231	653676.78	4193075.30	0.54121
653976.78	4193075.30	0.67536	654276.78	4193075.30	0.87543
654576.78	4193075.30	1.08728	654876.78	4193075.30	1.30921
655176.78	4193075.30	1.48468	655476.78	4193075.30	1.60144
655776.78	4193075.30	1.64777	656076.78	4193075.30	1.60557
656376.78	4193075.30	1.46971	656676.78	4193075.30	1.30023
653676.78	4193375.30	0.68054	653976.78	4193375.30	0.89327
654276.78	4193375.30	1.25552	654576.78	4193375.30	1.73356
654876.78	4193375.30	2.21976	655176.78	4193375.30	2.56504
655476.78	4193375.30	2.73821	655776.78	4193375.30	2.76641
656076.78	4193375.30	2.64908	656376.78	4193375.30	2.33841
656676.78	4193375.30	1.91419	653676.78	4193675.30	0.85518
653976.78	4193675.30	1.24363	654276.78	4193675.30	2.04280
654576.78	4193675.30	3.76382	654876.78	4193675.30	5.22095
655176.78	4193675.30	5.80258	655476.78	4193675.30	5.94672
655776.78	4193675.30	5.86897	656076.78	4193675.30	5.50949

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE1 ***

INCLUDING SOURCE(S): L0008807 , L0008808 , L0008809 , L0008810 , L0008811 ,
L0008812 , L0008813 , L0008814 , L0008815 , L0008816 , L0008817 , L0008818 , L0008819 ,
L0008820 , L0008821 , L0008822 , L0008823 , L0008824 , L0008825 , L0008826 , L0008827 ,
L0008828 , L0008829 , L0008830 , L0008831 , L0008832 , L0008833 , L0008834 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	4.69838	656676.78	4193675.30	3.18136
653676.78	4193975.30	1.04161	653976.78	4193975.30	1.68618

654276.78	4193975.30	4.07477	654576.78	4193975.30	36.20187
654876.78	4193975.30	45.90277	655176.78	4193975.30	51.59256
655476.78	4193975.30	52.32395	655776.78	4193975.30	48.73142
656076.78	4193975.30	44.45957	656376.78	4193975.30	38.05257
656676.78	4193975.30	4.96379	653676.78	4194275.30	0.97909
653976.78	4194275.30	1.45805	654276.78	4194275.30	2.42315
654576.78	4194275.30	3.40763	654876.78	4194275.30	4.03705
655176.78	4194275.30	4.39498	655476.78	4194275.30	4.55478
655776.78	4194275.30	4.50951	656076.78	4194275.30	4.13983
656376.78	4194275.30	3.09380	656676.78	4194275.30	2.01082
653676.78	4194575.30	0.82082	653976.78	4194575.30	1.10776
654276.78	4194575.30	1.43060	654576.78	4194575.30	1.68806
654876.78	4194575.30	1.87669	655176.78	4194575.30	1.97599
655476.78	4194575.30	1.98515	655776.78	4194575.30	1.89127
656076.78	4194575.30	1.64998	656376.78	4194575.30	1.34092
656676.78	4194575.30	1.07319	653676.78	4194875.30	0.68015
653976.78	4194875.30	0.83053	654276.78	4194875.30	0.95993
654576.78	4194875.30	1.05928	654876.78	4194875.30	1.12833
655176.78	4194875.30	1.15566	655476.78	4194875.30	1.13212
655776.78	4194875.30	1.04621	656076.78	4194875.30	0.92172
656376.78	4194875.30	0.80137	656676.78	4194875.30	0.69072
653676.78	4195175.30	0.55633	653976.78	4195175.30	0.63329
654276.78	4195175.30	0.69251	654576.78	4195175.30	0.73542
654876.78	4195175.30	0.76019	655176.78	4195175.30	0.75981
655476.78	4195175.30	0.72674	655776.78	4195175.30	0.67076
656076.78	4195175.30	0.60650	656376.78	4195175.30	0.54670
656676.78	4195175.30	0.48860	653676.78	4195475.30	0.45410
653976.78	4195475.30	0.49527	654276.78	4195475.30	0.52339
654576.78	4195475.30	0.54139	654876.78	4195475.30	0.54571
655176.78	4195475.30	0.53307	655476.78	4195475.30	0.50650
655776.78	4195475.30	0.47224	656076.78	4195475.30	0.43659
656376.78	4195475.30	0.40351	656676.78	4195475.30	0.36868

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE10 ***

INCLUDING SOURCE(S):

L0011802 , L0011803 , L0011804 , L0011805 , L0011806 ,
L0011807 , L0011808 , L0011809 , L0011810 , L0011811 , L0011812 , L0011813 , L0011814 ,
L0011815 , L0011816 , L0011817 , L0011818 , L0011819 , L0011820 , L0011821 , L0011822 ,
L0011823 , L0011824 , L0011825 , L0011826 , L0011827 , L0011828 , L0011829 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	1.32186	656126.40	4192764.99	1.30976
656103.65	4192731.89	1.26537	656093.30	4192690.51	1.20251
656217.44	4192771.20	1.25925	656279.50	4192760.85	1.20074
656341.57	4192727.75	1.12051	656366.40	4192707.06	1.08252

653815.06	4193437.51	0.63862	653776.43	4193429.79	0.61668
653798.32	4193413.05	0.62155	653708.18	4193118.16	0.49107
653730.07	4193102.71	0.49461	653753.25	4193085.97	0.49843
653800.90	4193053.77	0.50712	653882.02	4192964.92	0.51104
653907.78	4192962.34	0.51879	653945.12	4192954.62	0.52876
654067.45	4192886.37	0.54294	654108.66	4192861.90	0.54530
654140.85	4192841.30	0.54582	654376.51	4192702.22	0.55828
654399.69	4192673.89	0.55495	654024.74	4193417.88	0.74799
653831.84	4193501.47	0.67037	653915.64	4193528.15	0.73033
653813.62	4193608.32	0.69768	653676.78	4192475.30	0.34067
653976.78	4192475.30	0.38563	654276.78	4192475.30	0.45061
654576.78	4192475.30	0.54614	654876.78	4192475.30	0.69231
655176.78	4192475.30	0.83132	655476.78	4192475.30	0.82407
655776.78	4192475.30	0.87012	656076.78	4192475.30	0.92168
656376.78	4192475.30	0.86112	656676.78	4192475.30	0.76947
653676.78	4192775.30	0.40702	653976.78	4192775.30	0.47628
654276.78	4192775.30	0.55607	654576.78	4192775.30	0.67705
654876.78	4192775.30	0.87664	655176.78	4192775.30	1.16649
655476.78	4192775.30	1.21836	655776.78	4192775.30	1.30330
656076.78	4192775.30	1.34805	656376.78	4192775.30	1.16698
656676.78	4192775.30	1.05955	653676.78	4193075.30	0.47093
653976.78	4193075.30	0.58105	654276.78	4193075.30	0.72193
654576.78	4193075.30	0.89234	654876.78	4193075.30	1.16848
655176.78	4193075.30	1.70812	655476.78	4193075.30	2.02959
655776.78	4193075.30	2.21144	656076.78	4193075.30	2.06791
656376.78	4193075.30	1.77826	656676.78	4193075.30	1.44394
653676.78	4193375.30	0.55642	653976.78	4193375.30	0.69793
654276.78	4193375.30	0.90634	654576.78	4193375.30	1.24356
654876.78	4193375.30	1.74053	655176.78	4193375.30	2.67400
655476.78	4193375.30	4.19496	655776.78	4193375.30	4.72176
656076.78	4193375.30	3.80553	656376.78	4193375.30	2.71001
656676.78	4193375.30	1.84409	653676.78	4193675.30	0.64411
653976.78	4193675.30	0.83894	654276.78	4193675.30	1.14547
654576.78	4193675.30	1.68692	654876.78	4193675.30	2.73319
655176.78	4193675.30	5.27336	655476.78	4193675.30	14.19457
655776.78	4193675.30	15.71589	656076.78	4193675.30	7.00840

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE10 ***

INCLUDING SOURCE(S): L0011802 , L0011803 , L0011804 , L0011805 , L0011806 ,
L0011807 , L0011808 , L0011809 , L0011810 , L0011811 , L0011812 , L0011813 , L0011814 ,
L0011815 , L0011816 , L0011817 , L0011818 , L0011819 , L0011820 , L0011821 , L0011822 ,
L0011823 , L0011824 , L0011825 , L0011826 , L0011827 , L0011828 , L0011829 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
-------------	-------------	------	-------------	-------------	------

656376.78	4193675.30	3.45714	656676.78	4193675.30	2.06918
653676.78	4193975.30	0.72363	653976.78	4193975.30	0.96490
654276.78	4193975.30	1.36622	654576.78	4193975.30	2.11439
654876.78	4193975.30	3.83934	655176.78	4193975.30	9.79319
655476.78	4193975.30	88.57392	655776.78	4193975.30	27.60172
656076.78	4193975.30	7.07087	656376.78	4193975.30	3.31631
656676.78	4193975.30	1.96948	653676.78	4194275.30	0.69197
653976.78	4194275.30	0.90235	654276.78	4194275.30	1.24581
654576.78	4194275.30	1.84904	654876.78	4194275.30	2.99194
655176.78	4194275.30	5.59211	655476.78	4194275.30	6.53208
655776.78	4194275.30	4.64060	656076.78	4194275.30	2.96284
656376.78	4194275.30	2.04604	656676.78	4194275.30	1.43742
653676.78	4194575.30	0.63435	653976.78	4194575.30	0.80360
654276.78	4194575.30	1.04897	654576.78	4194575.30	1.41360
654876.78	4194575.30	2.05016	655176.78	4194575.30	2.47283
655476.78	4194575.30	2.11117	655776.78	4194575.30	1.85089
656076.78	4194575.30	1.46117	656376.78	4194575.30	1.14396
656676.78	4194575.30	0.92948	653676.78	4194875.30	0.55364
653976.78	4194875.30	0.67724	654276.78	4194875.30	0.84485
654576.78	4194875.30	1.10545	654876.78	4194875.30	1.28834
655176.78	4194875.30	1.25339	655476.78	4194875.30	1.09886
655776.78	4194875.30	1.01406	656076.78	4194875.30	0.88918
656376.78	4194875.30	0.74535	656676.78	4194875.30	0.63379
653676.78	4195175.30	0.47778	653976.78	4195175.30	0.57347
654276.78	4195175.30	0.70739	654576.78	4195175.30	0.80455
654876.78	4195175.30	0.81405	655176.78	4195175.30	0.75407
655476.78	4195175.30	0.69271	655776.78	4195175.30	0.65467
656076.78	4195175.30	0.60111	656376.78	4195175.30	0.53222
656676.78	4195175.30	0.46472	653676.78	4195475.30	0.42025
653976.78	4195475.30	0.49893	654276.78	4195475.30	0.55744
654576.78	4195475.30	0.56927	654876.78	4195475.30	0.55846
655176.78	4195475.30	0.50801	655476.78	4195475.30	0.48456
655776.78	4195475.30	0.46444	656076.78	4195475.30	0.43303
656376.78	4195475.30	0.39809	656676.78	4195475.30	0.35846

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE11 ***

INCLUDING SOURCE(S): L0011857 , L0011858 , L0011859 , L0011860 , L0011861 ,
L0011862 , L0011863 , L0011864 , L0011865 , L0011866 , L0011867 , L0011868 , L0011869 ,
L0011870 , L0011871 , L0011872 , L0011873 , L0011874 , L0011875 , L0011876 , L0011877 ,
L0011878 , L0011879 , L0011880 , L0011881 , L0011882 , L0011883 , L0011884 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	1.12804	656126.40	4192764.99	1.10935
656103.65	4192731.89	1.07155	656093.30	4192690.51	1.02276

656217.44	4192771.20	1.08763	656279.50	4192760.85	1.05136
656341.57	4192727.75	0.99088	656366.40	4192707.06	0.96084
653815.06	4193437.51	0.88848	653776.43	4193429.79	0.85185
653798.32	4193413.05	0.85777	653708.18	4193118.16	0.65160
653730.07	4193102.71	0.65587	653753.25	4193085.97	0.65967
653800.90	4193053.77	0.66667	653882.02	4192964.92	0.65307
653907.78	4192962.34	0.66191	653945.12	4192954.62	0.67226
654067.45	4192886.37	0.68128	654108.66	4192861.90	0.68604
654140.85	4192841.30	0.68980	654376.51	4192702.22	0.74352
654399.69	4192673.89	0.74191	654024.74	4193417.88	1.07660
653831.84	4193501.47	0.95070	653915.64	4193528.15	1.05765
653813.62	4193608.32	1.00785	653676.78	4192475.30	0.40216
653976.78	4192475.30	0.47430	654276.78	4192475.30	0.58132
654576.78	4192475.30	0.74189	654876.78	4192475.30	0.84665
655176.78	4192475.30	0.81473	655476.78	4192475.30	0.89733
655776.78	4192475.30	0.92514	656076.78	4192475.30	0.82684
656376.78	4192475.30	0.75826	656676.78	4192475.30	0.69594
653676.78	4192775.30	0.49807	653976.78	4192775.30	0.58573
654276.78	4192775.30	0.72466	654576.78	4192775.30	0.95784
654876.78	4192775.30	1.22212	655176.78	4192775.30	1.20403
655476.78	4192775.30	1.34006	655776.78	4192775.30	1.30923
656076.78	4192775.30	1.13941	656376.78	4192775.30	1.02274
656676.78	4192775.30	0.87031	653676.78	4193075.30	0.61920
653976.78	4193075.30	0.76904	654276.78	4193075.30	0.95631
654576.78	4193075.30	1.28976	654876.78	4193075.30	1.89468
655176.78	4193075.30	2.00790	655476.78	4193075.30	2.26474
655776.78	4193075.30	1.97278	656076.78	4193075.30	1.69585
656376.78	4193075.30	1.35381	656676.78	4193075.30	1.05958
653676.78	4193375.30	0.74989	653976.78	4193375.30	0.98901
654276.78	4193375.30	1.37309	654576.78	4193375.30	1.93002
654876.78	4193375.30	3.18015	655176.78	4193375.30	4.21316
655476.78	4193375.30	4.55600	655776.78	4193375.30	3.52258
656076.78	4193375.30	2.43441	656376.78	4193375.30	1.66515
656676.78	4193375.30	1.19267	653676.78	4193675.30	0.91278
653976.78	4193675.30	1.27278	654276.78	4193675.30	1.91795
654576.78	4193675.30	3.26203	654876.78	4193675.30	6.66347
655176.78	4193675.30	16.25228	655476.78	4193675.30	13.05704
655776.78	4193675.30	5.61125	656076.78	4193675.30	2.94544

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE11 ***

INCLUDING SOURCE(S): L0011857 , L0011858 , L0011859 , L0011860 , L0011861 ,
L0011862 , L0011863 , L0011864 , L0011865 , L0011866 , L0011867 , L0011868 , L0011869 ,
L0011870 , L0011871 , L0011872 , L0011873 , L0011874 , L0011875 , L0011876 , L0011877 ,
L0011878 , L0011879 , L0011880 , L0011881 , L0011882 , L0011883 , L0011884 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.83200	656676.78	4193675.30	1.26406
653676.78	4193975.30	1.05858	653976.78	4193975.30	1.53261
654276.78	4193975.30	2.46527	654576.78	4193975.30	4.78925
654876.78	4193975.30	14.66148	655176.78	4193975.30	195.52566
655476.78	4193975.30	16.62910	655776.78	4193975.30	5.49033
656076.78	4193975.30	2.80807	656376.78	4193975.30	1.73996
656676.78	4193975.30	1.20073	653676.78	4194275.30	0.98143
653976.78	4194275.30	1.38265	654276.78	4194275.30	2.09756
654576.78	4194275.30	3.48983	654876.78	4194275.30	6.60981
655176.78	4194275.30	5.89227	655476.78	4194275.30	4.00737
655776.78	4194275.30	2.64202	656076.78	4194275.30	1.83476
656376.78	4194275.30	1.30792	656676.78	4194275.30	0.98151
653676.78	4194575.30	0.86278	653976.78	4194575.30	1.13610
654276.78	4194575.30	1.55336	654576.78	4194575.30	2.24758
654876.78	4194575.30	2.41491	655176.78	4194575.30	2.04076
655476.78	4194575.30	1.73621	655776.78	4194575.30	1.35528
656076.78	4194575.30	1.06690	656376.78	4194575.30	0.87844
656676.78	4194575.30	0.72346	653676.78	4194875.30	0.71567
653976.78	4194875.30	0.90785	654276.78	4194875.30	1.17861
654576.78	4194875.30	1.29037	654876.78	4194875.30	1.19659
655176.78	4194875.30	1.07786	655476.78	4194875.30	0.97762
655776.78	4194875.30	0.84538	656076.78	4194875.30	0.71177
656376.78	4194875.30	0.60138	656676.78	4194875.30	0.51824
653676.78	4195175.30	0.60791	653976.78	4195175.30	0.74317
654276.78	4195175.30	0.81065	654576.78	4195175.30	0.80400
654876.78	4195175.30	0.72169	655176.78	4195175.30	0.68259
655476.78	4195175.30	0.63531	655776.78	4195175.30	0.57998
656076.78	4195175.30	0.50953	656376.78	4195175.30	0.45020
656676.78	4195175.30	0.39585	653676.78	4195475.30	0.51937
653976.78	4195475.30	0.56323	654276.78	4195475.30	0.56751
654576.78	4195475.30	0.54566	654876.78	4195475.30	0.49203
655176.78	4195475.30	0.47839	655476.78	4195475.30	0.45336
655776.78	4195475.30	0.42479	656076.78	4195475.30	0.38649
656376.78	4195475.30	0.34498	656676.78	4195475.30	0.31607

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE12 ***

INCLUDING SOURCE(S): L0011908 ,L0011909 ,L0011910 ,L0011911 ,L0011912 ,
L0011913 ,L0011914 ,L0011915 ,L0011916 ,L0011917 ,L0011918 ,L0011919 ,L0011920 ,
L0011921 ,L0011922 ,L0011923 ,L0011924 ,L0011925 ,L0011926 ,L0011927 ,L0011928 ,
L0011929 ,L0011930 ,L0011931 ,L0011932 ,L0011933 ,L0011934 ,L0011935 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
-------------	-------------	------	-------------	-------------	------

656165.71	4192787.75	0.64483	656126.40	4192764.99	0.65072
656103.65	4192731.89	0.64663	656093.30	4192690.51	0.63499
656217.44	4192771.20	0.62208	656279.50	4192760.85	0.59897
656341.57	4192727.75	0.57126	656366.40	4192707.06	0.55892
653815.06	4193437.51	2.40360	653776.43	4193429.79	2.23330
653798.32	4193413.05	2.24674	653708.18	4193118.16	1.33096
653730.07	4193102.71	1.33835	653753.25	4193085.97	1.34382
653800.90	4193053.77	1.35184	653882.02	4192964.92	1.28212
653907.78	4192962.34	1.29608	653945.12	4192954.62	1.30481
654067.45	4192886.37	1.21957	654108.66	4192861.90	1.18159
654140.85	4192841.30	1.14967	654376.51	4192702.22	0.98270
654399.69	4192673.89	0.95358	654024.74	4193417.88	3.03078
653831.84	4193501.47	2.77907	653915.64	4193528.15	3.37086
653813.62	4193608.32	3.33808	653676.78	4192475.30	0.68718
653976.78	4192475.30	0.74043	654276.78	4192475.30	0.73733
654576.78	4192475.30	0.79137	654876.78	4192475.30	0.81018
655176.78	4192475.30	0.73957	655476.78	4192475.30	0.67562
655776.78	4192475.30	0.62892	656076.78	4192475.30	0.56357
656376.78	4192475.30	0.49866	656676.78	4192475.30	0.43951
653676.78	4192775.30	0.90052	653976.78	4192775.30	1.04168
654276.78	4192775.30	1.06136	654576.78	4192775.30	1.14336
654876.78	4192775.30	1.11700	655176.78	4192775.30	0.98763
655476.78	4192775.30	0.90024	655776.78	4192775.30	0.78451
656076.78	4192775.30	0.67172	656376.78	4192775.30	0.57210
656676.78	4192775.30	0.48691	653676.78	4193075.30	1.22472
653976.78	4193075.30	1.57400	654276.78	4193075.30	1.69010
654576.78	4193075.30	1.81103	654876.78	4193075.30	1.63732
655176.78	4193075.30	1.43042	655476.78	4193075.30	1.18960
655776.78	4193075.30	0.96272	656076.78	4193075.30	0.77553
656376.78	4193075.30	0.63086	656676.78	4193075.30	0.52050
653676.78	4193375.30	1.77987	653976.78	4193375.30	2.64567
654276.78	4193375.30	3.21176	654576.78	4193375.30	3.30835
654876.78	4193375.30	2.74344	655176.78	4193375.30	2.07640
655476.78	4193375.30	1.50260	655776.78	4193375.30	1.10751
656076.78	4193375.30	0.84532	656376.78	4193375.30	0.66766
656676.78	4193375.30	0.54326	653676.78	4193675.30	2.94201
653976.78	4193675.30	5.50831	654276.78	4193675.30	8.82362
654576.78	4193675.30	8.24885	654876.78	4193675.30	4.72423
655176.78	4193675.30	2.65719	655476.78	4193675.30	1.69904
655776.78	4193675.30	1.19275	656076.78	4193675.30	0.89103

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE12 ***

INCLUDING SOURCE(S): L0011908 , L0011909 , L0011910 , L0011911 , L0011912 ,
L0011913 , L0011914 , L0011915 , L0011916 , L0011917 , L0011918 , L0011919 , L0011920 ,
L0011921 , L0011922 , L0011923 , L0011924 , L0011925 , L0011926 , L0011927 , L0011928 ,
L0011929 , L0011930 , L0011931 , L0011932 , L0011933 , L0011934 , L0011935 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	0.69510	656676.78	4193675.30	0.56001
653676.78	4193975.30	5.36977	653976.78	4193975.30	19.06974
654276.78	4193975.30	101.94011	654576.78	4193975.30	20.29392
654876.78	4193975.30	5.52444	655176.78	4193975.30	2.76355
655476.78	4193975.30	1.70699	655776.78	4193975.30	1.17783
656076.78	4193975.30	0.87105	656376.78	4193975.30	0.67550
656676.78	4193975.30	0.54244	653676.78	4194275.30	5.22301
653976.78	4194275.30	12.79017	654276.78	4194275.30	9.95976
654576.78	4194275.30	5.54271	654876.78	4194275.30	3.23046
655176.78	4194275.30	2.05625	655476.78	4194275.30	1.41087
655776.78	4194275.30	1.03127	656076.78	4194275.30	0.78949
656376.78	4194275.30	0.62577	656676.78	4194275.30	0.50988
653676.78	4194575.30	2.97640	653976.78	4194575.30	3.24214
654276.78	4194575.30	2.69929	654576.78	4194575.30	2.12230
654876.78	4194575.30	1.59647	655176.78	4194575.30	1.23524
655476.78	4194575.30	0.97589	655776.78	4194575.30	0.77737
656076.78	4194575.30	0.63017	656376.78	4194575.30	0.52203
656676.78	4194575.30	0.44037	653676.78	4194875.30	1.57949
653976.78	4194875.30	1.45624	654276.78	4194875.30	1.30000
654576.78	4194875.30	1.14292	654876.78	4194875.30	0.95505
655176.78	4194875.30	0.79001	655476.78	4194875.30	0.66466
655776.78	4194875.30	0.57055	656076.78	4194875.30	0.49156
656376.78	4194875.30	0.42200	656676.78	4194875.30	0.36429
653676.78	4195175.30	0.93227	653976.78	4195175.30	0.84268
654276.78	4195175.30	0.78579	654576.78	4195175.30	0.72296
654876.78	4195175.30	0.64203	655176.78	4195175.30	0.55812
655476.78	4195175.30	0.48612	655776.78	4195175.30	0.42449
656076.78	4195175.30	0.37702	656376.78	4195175.30	0.33893
656676.78	4195175.30	0.30384	653676.78	4195475.30	0.61187
653976.78	4195475.30	0.55974	654276.78	4195475.30	0.53599
654576.78	4195475.30	0.50352	654876.78	4195475.30	0.46383
655176.78	4195475.30	0.41657	655476.78	4195475.30	0.37293
655776.78	4195475.30	0.33576	656076.78	4195475.30	0.29984
656376.78	4195475.30	0.27069	656676.78	4195475.30	0.24847

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE13 ***

INCLUDING SOURCE(S): L0013626 , L0013627 , L0013628 , L0013629 , L0013630 ,
L0013631 , L0013632 , L0013633 , L0013634 , L0013635 , L0013636 , L0013637 , L0013638 ,
L0013639 , L0013640 , L0013641 , L0013642 , L0013643 , L0013644 , L0013645 , L0013646 ,
L0013647 , L0013648 , L0013649 , L0013650 , L0013651 , L0013652 , L0013653 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.49714	656126.40	4192764.99	0.49950
656103.65	4192731.89	0.49551	656093.30	4192690.51	0.48684
656217.44	4192771.20	0.48274	656279.50	4192760.85	0.46825
656341.57	4192727.75	0.44980	656366.40	4192707.06	0.44132
653815.06	4193437.51	1.84551	653776.43	4193429.79	1.78443
653798.32	4193413.05	1.75493	653708.18	4193118.16	1.09892
653730.07	4193102.71	1.08454	653753.25	4193085.97	1.06685
653800.90	4193053.77	1.02872	653882.02	4192964.92	0.91044
653907.78	4192962.34	0.90079	653945.12	4192954.62	0.88157
654067.45	4192886.37	0.80447	654108.66	4192861.90	0.79057
654140.85	4192841.30	0.78115	654376.51	4192702.22	0.72918
654399.69	4192673.89	0.71074	654024.74	4193417.88	1.75353
653831.84	4193501.47	2.09584	653915.64	4193528.15	2.24536
653813.62	4193608.32	2.56784	653676.78	4192475.30	0.55547
653976.78	4192475.30	0.52820	654276.78	4192475.30	0.56435
654576.78	4192475.30	0.59640	654876.78	4192475.30	0.59703
655176.78	4192475.30	0.53914	655476.78	4192475.30	0.49786
655776.78	4192475.30	0.47355	656076.78	4192475.30	0.43725
656376.78	4192475.30	0.39608	656676.78	4192475.30	0.35765
653676.78	4192775.30	0.73777	653976.78	4192775.30	0.71049
654276.78	4192775.30	0.76767	654576.78	4192775.30	0.80524
654876.78	4192775.30	0.76254	655176.78	4192775.30	0.67956
655476.78	4192775.30	0.63555	655776.78	4192775.30	0.57741
656076.78	4192775.30	0.51233	656376.78	4192775.30	0.45230
656676.78	4192775.30	0.39806	653676.78	4193075.30	1.03029
653976.78	4193075.30	1.02133	654276.78	4193075.30	1.11730
654576.78	4193075.30	1.14238	654876.78	4193075.30	1.00901
655176.78	4193075.30	0.91294	655476.78	4193075.30	0.80905
655776.78	4193075.30	0.69505	656076.78	4193075.30	0.59286
656376.78	4193075.30	0.50608	656676.78	4193075.30	0.43357
653676.78	4193375.30	1.51796	653976.78	4193375.30	1.63088
654276.78	4193375.30	1.80958	654576.78	4193375.30	1.70808
654876.78	4193375.30	1.46323	655176.78	4193375.30	1.23946
655476.78	4193375.30	1.00702	655776.78	4193375.30	0.81384
656076.78	4193375.30	0.66355	656376.78	4193375.30	0.54763
656676.78	4193375.30	0.45897	653676.78	4193675.30	2.37370
653976.78	4193675.30	3.17127	654276.78	4193675.30	3.51306
654576.78	4193675.30	2.88690	654876.78	4193675.30	2.19589
655176.78	4193675.30	1.60247	655476.78	4193675.30	1.18678
655776.78	4193675.30	0.90553	656076.78	4193675.30	0.71275

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE13 ***

INCLUDING SOURCE(S): L0013626 ,L0013627 ,L0013628 ,L0013629 ,L0013630 ,
L0013631 ,L0013632 ,L0013633 ,L0013634 ,L0013635 ,L0013636 ,L0013637 ,L0013638 ,
L0013639 ,L0013640 ,L0013641 ,L0013642 ,L0013643 ,L0013644 ,L0013645 ,L0013646 ,
L0013647 ,L0013648 ,L0013649 ,L0013650 ,L0013651 ,L0013652 ,L0013653 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	0.57509	656676.78	4193675.30	0.47592
653676.78	4193975.30	4.42187	653976.78	4193975.30	10.50852
654276.78	4193975.30	9.65875	654576.78	4193975.30	5.11868
654876.78	4193975.30	2.94728	655176.78	4193975.30	1.87742
655476.78	4193975.30	1.30028	655776.78	4193975.30	0.95722
656076.78	4193975.30	0.73937	656376.78	4193975.30	0.59150
656676.78	4193975.30	0.48629	653676.78	4194275.30	8.85259
653976.78	4194275.30	68.46339	654276.78	4194275.30	20.37337
654576.78	4194275.30	6.49457	654876.78	4194275.30	3.17775
655176.78	4194275.30	1.91806	655476.78	4194275.30	1.30263
655776.78	4194275.30	0.95172	656076.78	4194275.30	0.73095
656376.78	4194275.30	0.58205	656676.78	4194275.30	0.47658
653676.78	4194575.30	8.39571	653976.78	4194575.30	65.02634
654276.78	4194575.30	11.28997	654576.78	4194575.30	4.41945
654876.78	4194575.30	2.48490	655176.78	4194575.30	1.61332
655476.78	4194575.30	1.14313	655776.78	4194575.30	0.85882
656076.78	4194575.30	0.67236	656376.78	4194575.30	0.54272
656676.78	4194575.30	0.44880	653676.78	4194875.30	3.94026
653976.78	4194875.30	3.72755	654276.78	4194875.30	2.86008
654576.78	4194875.30	1.99821	654876.78	4194875.30	1.46567
655176.78	4194875.30	1.11500	655476.78	4194875.30	0.87020
655776.78	4194875.30	0.69451	656076.78	4194875.30	0.56758
656376.78	4194875.30	0.47344	656676.78	4194875.30	0.40147
653676.78	4195175.30	1.73942	653976.78	4195175.30	1.50049
654276.78	4195175.30	1.33915	654576.78	4195175.30	1.09968
654876.78	4195175.30	0.89004	655176.78	4195175.30	0.73952
655476.78	4195175.30	0.62384	655776.78	4195175.30	0.53038
656076.78	4195175.30	0.45298	656376.78	4195175.30	0.38928
656676.78	4195175.30	0.33799	653676.78	4195475.30	0.94466
653976.78	4195475.30	0.85774	654276.78	4195475.30	0.79197
654576.78	4195475.30	0.71045	654876.78	4195475.30	0.61034
655176.78	4195475.30	0.52673	655476.78	4195475.30	0.45668
655776.78	4195475.30	0.40318	656076.78	4195475.30	0.35960
656376.78	4195475.30	0.32004	656676.78	4195475.30	0.28460

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE14 ***

INCLUDING SOURCE(S): L0013887 , L0013888 , L0013889 , L0013890 , L0013891 ,
L0013892 , L0013893 , L0013894 , L0013895 , L0013896 , L0013897 , L0013898 , L0013899 ,
L0013900 , L0013901 , L0013902 , L0013903 , L0013904 , L0013905 , L0013906 , L0013907 ,
L0013908 , L0013909 , L0013910 , L0013911 , L0013912 , L0013913 , L0013914 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.55850	656126.40	4192764.99	0.56903
656103.65	4192731.89	0.57217	656093.30	4192690.51	0.56936
656217.44	4192771.20	0.53924	656279.50	4192760.85	0.51855
656341.57	4192727.75	0.49675	656366.40	4192707.06	0.48770
653815.06	4193437.51	38.98328	653776.43	4193429.79	55.01503
653798.32	4193413.05	39.54713	653708.18	4193118.16	4.66178
653730.07	4193102.71	4.42954	653753.25	4193085.97	4.20403
653800.90	4193053.77	3.83653	653882.02	4192964.92	2.99496
653907.78	4192962.34	2.99234	653945.12	4192954.62	2.94462
654067.45	4192886.37	2.47805	654108.66	4192861.90	2.33343
654140.85	4192841.30	2.22105	654376.51	4192702.22	1.61278
654399.69	4192673.89	1.53187	654024.74	4193417.88	12.28665
653831.84	4193501.47	44.79143	653915.64	4193528.15	26.63323
653813.62	4193608.32	87.79678	653676.78	4192475.30	1.11679
653976.78	4192475.30	1.15265	654276.78	4192475.30	1.19751
654576.78	4192475.30	1.10544	654876.78	4192475.30	0.97790
655176.78	4192475.30	0.85549	655476.78	4192475.30	0.73871
655776.78	4192475.30	0.62995	656076.78	4192475.30	0.53691
656376.78	4192475.30	0.45950	656676.78	4192475.30	0.39563
653676.78	4192775.30	1.84236	653976.78	4192775.30	1.94656
654276.78	4192775.30	1.88497	654576.78	4192775.30	1.62160
654876.78	4192775.30	1.33097	655176.78	4192775.30	1.08408
655476.78	4192775.30	0.87673	655776.78	4192775.30	0.71382
656076.78	4192775.30	0.58825	656376.78	4192775.30	0.49134
656676.78	4192775.30	0.41602	653676.78	4193075.30	3.94400
653976.78	4193075.30	4.18503	654276.78	4193075.30	3.36145
654576.78	4193075.30	2.42073	654876.78	4193075.30	1.76477
655176.78	4193075.30	1.31003	655476.78	4193075.30	0.99722
655776.78	4193075.30	0.78008	656076.78	4193075.30	0.62614
656376.78	4193075.30	0.51432	656676.78	4193075.30	0.43089
653676.78	4193375.30	30.97643	653976.78	4193375.30	12.69570
654276.78	4193375.30	5.89654	654576.78	4193375.30	3.38776
654876.78	4193375.30	2.15730	655176.78	4193375.30	1.47453
655476.78	4193375.30	1.06967	655776.78	4193375.30	0.81431
656076.78	4193375.30	0.64351	656376.78	4193375.30	0.52359
656676.78	4193375.30	0.43588	653676.78	4193675.30	20.74038
653976.78	4193675.30	26.99314	654276.78	4193675.30	8.32525
654576.78	4193675.30	3.95887	654876.78	4193675.30	2.27813
655176.78	4193675.30	1.49508	655476.78	4193675.30	1.06763
655776.78	4193675.30	0.80701	656076.78	4193675.30	0.63508

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE14 ***

INCLUDING SOURCE(S): L0013887 , L0013888 , L0013889 , L0013890 , L0013891 ,
L0013892 , L0013893 , L0013894 , L0013895 , L0013896 , L0013897 , L0013898 , L0013899 ,
L0013900 , L0013901 , L0013902 , L0013903 , L0013904 , L0013905 , L0013906 , L0013907 ,

L0013908 , L0013909 , L0013910 , L0013911 , L0013912 , L0013913 , L0013914 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	0.51511	656676.78	4193675.30	0.42790
653676.78	4193975.30	10.94285	653976.78	4193975.30	68.53957
654276.78	4193975.30	8.04904	654576.78	4193975.30	3.33681
654876.78	4193975.30	1.95613	655176.78	4193975.30	1.31797
655476.78	4193975.30	0.96167	655776.78	4193975.30	0.73919
656076.78	4193975.30	0.58947	656376.78	4193975.30	0.48318
656676.78	4193975.30	0.40474	653676.78	4194275.30	4.46940
653976.78	4194275.30	4.71449	654276.78	4194275.30	2.90667
654576.78	4194275.30	1.89688	654876.78	4194275.30	1.33573
655176.78	4194275.30	0.99911	655476.78	4194275.30	0.77692
655776.78	4194275.30	0.62217	656076.78	4194275.30	0.51111
656376.78	4194275.30	0.42871	656676.78	4194275.30	0.36580
653676.78	4194575.30	1.78054	653976.78	4194575.30	1.55673
654276.78	4194575.30	1.31242	654576.78	4194575.30	1.03641
654876.78	4194575.30	0.83976	655176.78	4194575.30	0.69436
655476.78	4194575.30	0.58183	655776.78	4194575.30	0.49227
656076.78	4194575.30	0.42011	656376.78	4194575.30	0.36198
656676.78	4194575.30	0.31535	653676.78	4194875.30	0.92904
653976.78	4194875.30	0.86085	654276.78	4194875.30	0.78111
654576.78	4194875.30	0.67574	654876.78	4194875.30	0.57656
655176.78	4194875.30	0.49772	655476.78	4194875.30	0.43331
655776.78	4194875.30	0.38338	656076.78	4194875.30	0.34039
656376.78	4194875.30	0.30215	656676.78	4194875.30	0.26866
653676.78	4195175.30	0.59364	653976.78	4195175.30	0.56621
654276.78	4195175.30	0.52570	654576.78	4195175.30	0.48040
654876.78	4195175.30	0.42554	655176.78	4195175.30	0.37927
655476.78	4195175.30	0.33896	655776.78	4195175.30	0.30180
656076.78	4195175.30	0.27358	656376.78	4195175.30	0.25007
656676.78	4195175.30	0.22850	653676.78	4195475.30	0.42074
653976.78	4195475.30	0.40826	654276.78	4195475.30	0.38432
654576.78	4195475.30	0.36269	654876.78	4195475.30	0.33081
655176.78	4195475.30	0.29767	655476.78	4195475.30	0.27346
655776.78	4195475.30	0.24989	656076.78	4195475.30	0.22573
656376.78	4195475.30	0.20694	656676.78	4195475.30	0.19214

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE2 ***

INCLUDING SOURCE(S): L0009937 , L0009938 , L0009939 , L0009940 , L0009941 ,
L0009942 , L0009943 , L0009944 , L0009945 , L0009946 , L0009947 , L0009948 , L0009949 ,
L0009950 , L0009951 , L0009952 , L0009953 , L0009954 , L0009955 , L0009956 , L0009957 ,
L0009958 , L0009959 , L0009960 , L0009961 , L0009962 , L0009963 , L0009964 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.71685	656126.40	4192764.99	0.71706
656103.65	4192731.89	0.70576	656093.30	4192690.51	0.68604
656217.44	4192771.20	0.69237	656279.50	4192760.85	0.66872
656341.57	4192727.75	0.63662	656366.40	4192707.06	0.62153
653815.06	4193437.51	1.20855	653776.43	4193429.79	1.15216
653798.32	4193413.05	1.15492	653708.18	4193118.16	0.78912
653730.07	4193102.71	0.79244	653753.25	4193085.97	0.79617
653800.90	4193053.77	0.80681	653882.02	4192964.92	0.80496
653907.78	4192962.34	0.82210	653945.12	4192954.62	0.84477
654067.45	4192886.37	0.88249	654108.66	4192861.90	0.88909
654140.85	4192841.30	0.89028	654376.51	4192702.22	0.82627
654399.69	4192673.89	0.80014	654024.74	4193417.88	1.48605
653831.84	4193501.47	1.32908	653915.64	4193528.15	1.51055
653813.62	4193608.32	1.48742	653676.78	4192475.30	0.48689
653976.78	4192475.30	0.59029	654276.78	4192475.30	0.65096
654576.78	4192475.30	0.63494	654876.78	4192475.30	0.67580
655176.78	4192475.30	0.71148	655476.78	4192475.30	0.69093
655776.78	4192475.30	0.61158	656076.78	4192475.30	0.57813
656376.78	4192475.30	0.53471	656676.78	4192475.30	0.48017
653676.78	4192775.30	0.58966	653976.78	4192775.30	0.74645
654276.78	4192775.30	0.88438	654576.78	4192775.30	0.88488
654876.78	4192775.30	0.94998	655176.78	4192775.30	0.99155
655476.78	4192775.30	0.88742	655776.78	4192775.30	0.81112
656076.78	4192775.30	0.73780	656376.78	4192775.30	0.64560
656676.78	4192775.30	0.55998	653676.78	4193075.30	0.74134
653976.78	4193075.30	0.97013	654276.78	4193075.30	1.26251
654576.78	4193075.30	1.34147	654876.78	4193075.30	1.45707
655176.78	4193075.30	1.44518	655476.78	4193075.30	1.24985
655776.78	4193075.30	1.10566	656076.78	4193075.30	0.92736
656376.78	4193075.30	0.76842	656676.78	4193075.30	0.63603
653676.78	4193375.30	0.99066	653976.78	4193375.30	1.33180
654276.78	4193375.30	1.92221	654576.78	4193375.30	2.34051
654876.78	4193375.30	2.59851	655176.78	4193375.30	2.28159
655476.78	4193375.30	1.90535	655776.78	4193375.30	1.46980
656076.78	4193375.30	1.12162	656376.78	4193375.30	0.86906
656676.78	4193375.30	0.68941	653676.78	4193675.30	1.37515
653976.78	4193675.30	2.01286	654276.78	4193675.30	3.29742
654576.78	4193675.30	5.33108	654876.78	4193675.30	6.16853
655176.78	4193675.30	4.36906	655476.78	4193675.30	2.72435
655776.78	4193675.30	1.78256	656076.78	4193675.30	1.25242

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE2 ***

INCLUDING SOURCE(S): L0009937 , L0009938 , L0009939 , L0009940 , L0009941 ,

L0009942 , L0009943 , L0009944 , L0009945 , L0009946 , L0009947 , L0009948 , L0009949 ,
L0009950 , L0009951 , L0009952 , L0009953 , L0009954 , L0009955 , L0009956 , L0009957 ,
L0009958 , L0009959 , L0009960 , L0009961 , L0009962 , L0009963 , L0009964 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	0.93208	656676.78	4193675.30	0.72521
653676.78	4193975.30	1.89992	653976.78	4193975.30	3.23762
654276.78	4193975.30	6.89549	654576.78	4193975.30	23.77806
654876.78	4193975.30	24.71534	655176.78	4193975.30	6.50521
655476.78	4193975.30	3.15714	655776.78	4193975.30	1.90842
656076.78	4193975.30	1.29786	656376.78	4193975.30	0.94965
656676.78	4193975.30	0.73057	653676.78	4194275.30	2.28547
653976.78	4194275.30	4.32030	654276.78	4194275.30	12.45600
654576.78	4194275.30	120.78334	654876.78	4194275.30	12.39522
655176.78	4194275.30	4.95674	655476.78	4194275.30	2.70108
655776.78	4194275.30	1.71418	656076.78	4194275.30	1.19625
656376.78	4194275.30	0.88852	656676.78	4194275.30	0.69015
653676.78	4194575.30	1.99123	653976.78	4194575.30	3.35368
654276.78	4194575.30	6.76275	654576.78	4194575.30	5.83365
654876.78	4194575.30	3.77272	655176.78	4194575.30	2.46912
655476.78	4194575.30	1.71385	655776.78	4194575.30	1.25436
656076.78	4194575.30	0.95143	656376.78	4194575.30	0.74520
656676.78	4194575.30	0.60111	653676.78	4194875.30	1.48571
653976.78	4194875.30	2.15026	654276.78	4194875.30	2.30446
654576.78	4194875.30	1.94046	654876.78	4194875.30	1.63618
655176.78	4194875.30	1.29551	655476.78	4194875.30	1.03335
655776.78	4194875.30	0.84121	656076.78	4194875.30	0.69439
656376.78	4194875.30	0.57926	656676.78	4194875.30	0.48720
653676.78	4195175.30	1.12957	653976.78	4195175.30	1.23282
654276.78	4195175.30	1.14230	654576.78	4195175.30	1.02851
654876.78	4195175.30	0.93478	655176.78	4195175.30	0.81005
655476.78	4195175.30	0.68725	655776.78	4195175.30	0.58618
656076.78	4195175.30	0.50674	656376.78	4195175.30	0.44288
656676.78	4195175.30	0.38949	653676.78	4195475.30	0.77834
653976.78	4195475.30	0.77195	654276.78	4195475.30	0.69568
654576.78	4195475.30	0.65578	654876.78	4195475.30	0.61351
655176.78	4195475.30	0.55889	655476.78	4195475.30	0.49481
655776.78	4195475.30	0.43695	656076.78	4195475.30	0.38703
656376.78	4195475.30	0.34381	656676.78	4195475.30	0.30925

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE3 ***

INCLUDING SOURCE(S): L0010213 , L0010214 , L0010215 , L0010216 , L0010217 ,
L0010218 , L0010219 , L0010220 , L0010221 , L0010222 , L0010223 , L0010224 , L0010225 ,
L0010226 , L0010227 , L0010228 , L0010229 , L0010230 , L0010231 , L0010232 , L0010233 ,

L0010234 , L0010235 , L0010236 , L0010237 , L0010238 , L0010239 , L0010240 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.77132	656126.40	4192764.99	0.76030
656103.65	4192731.89	0.73886	656093.30	4192690.51	0.71102
656217.44	4192771.20	0.74966	656279.50	4192760.85	0.73053
656341.57	4192727.75	0.69699	656366.40	4192707.06	0.67986
653815.06	4193437.51	0.84615	653776.43	4193429.79	0.81399
653798.32	4193413.05	0.81652	653708.18	4193118.16	0.59796
653730.07	4193102.71	0.59888	653753.25	4193085.97	0.59972
653800.90	4193053.77	0.60281	653882.02	4192964.92	0.59416
653907.78	4192962.34	0.60369	653945.12	4192954.62	0.61640
654067.45	4192886.37	0.64305	654108.66	4192861.90	0.65242
654140.85	4192841.30	0.65912	654376.51	4192702.22	0.70021
654399.69	4192673.89	0.69263	654024.74	4193417.88	0.99395
653831.84	4193501.47	0.91033	653915.64	4193528.15	1.00640
653813.62	4193608.32	0.98942	653676.78	4192475.30	0.38441
653976.78	4192475.30	0.46165	654276.78	4192475.30	0.55519
654576.78	4192475.30	0.61641	654876.78	4192475.30	0.60731
655176.78	4192475.30	0.63426	655476.78	4192475.30	0.67409
655776.78	4192475.30	0.67022	656076.78	4192475.30	0.59416
656376.78	4192475.30	0.55705	656676.78	4192475.30	0.52194
653676.78	4192775.30	0.45829	653976.78	4192775.30	0.55605
654276.78	4192775.30	0.69560	654576.78	4192775.30	0.82427
654876.78	4192775.30	0.83782	655176.78	4192775.30	0.88211
655476.78	4192775.30	0.93451	655776.78	4192775.30	0.86389
656076.78	4192775.30	0.77628	656376.78	4192775.30	0.71725
656676.78	4192775.30	0.63400	653676.78	4193075.30	0.56706
653976.78	4193075.30	0.69352	654276.78	4193075.30	0.89515
654576.78	4193075.30	1.14982	654876.78	4193075.30	1.24946
655176.78	4193075.30	1.33263	655476.78	4193075.30	1.37687
655776.78	4193075.30	1.18711	656076.78	4193075.30	1.06933
656376.78	4193075.30	0.91052	656676.78	4193075.30	0.76173
653676.78	4193375.30	0.72047	653976.78	4193375.30	0.91312
654276.78	4193375.30	1.21254	654576.78	4193375.30	1.69978
654876.78	4193375.30	2.10927	655176.78	4193375.30	2.32349
655476.78	4193375.30	2.15827	655776.78	4193375.30	1.82992
656076.78	4193375.30	1.44824	656376.78	4193375.30	1.12090
656676.78	4193375.30	0.87513	653676.78	4193675.30	0.92200
653976.78	4193675.30	1.24557	654276.78	4193675.30	1.77697
654576.78	4193675.30	2.80701	654876.78	4193675.30	4.38178
655176.78	4193675.30	5.48514	655476.78	4193675.30	4.20228
655776.78	4193675.30	2.73377	656076.78	4193675.30	1.81148

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE3 ***
INCLUDING SOURCE(S): L0010213 , L0010214 , L0010215 , L0010216 , L0010217 ,
L0010218 , L0010219 , L0010220 , L0010221 , L0010222 , L0010223 , L0010224 , L0010225 ,
L0010226 , L0010227 , L0010228 , L0010229 , L0010230 , L0010231 , L0010232 , L0010233 ,
L0010234 , L0010235 , L0010236 , L0010237 , L0010238 , L0010239 , L0010240 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.27609	656676.78	4193675.30	0.94951
653676.78	4193975.30	1.16352	653976.78	4193975.30	1.70852
654276.78	4193975.30	2.76893	654576.78	4193975.30	5.39449
654876.78	4193975.30	14.81082	655176.78	4193975.30	33.03640
655476.78	4193975.30	7.01279	655776.78	4193975.30	3.32333
656076.78	4193975.30	1.98626	656376.78	4193975.30	1.34135
656676.78	4193975.30	0.97762	653676.78	4194275.30	1.36523
653976.78	4194275.30	2.11434	654276.78	4194275.30	3.83328
654576.78	4194275.30	9.66478	654876.78	4194275.30	82.95134
655176.78	4194275.30	15.90815	655476.78	4194275.30	5.66065
655776.78	4194275.30	2.95265	656076.78	4194275.30	1.83138
656376.78	4194275.30	1.25981	656676.78	4194275.30	0.92738
653676.78	4194575.30	1.32465	653976.78	4194575.30	2.01039
654276.78	4194575.30	3.50985	654576.78	4194575.30	8.46045
654876.78	4194575.30	10.69636	655176.78	4194575.30	5.17262
655476.78	4194575.30	2.98778	655776.78	4194575.30	1.95028
656076.78	4194575.30	1.37811	656376.78	4194575.30	1.02339
656676.78	4194575.30	0.79033	653676.78	4194875.30	1.11012
653976.78	4194875.30	1.54829	654276.78	4194875.30	2.32838
654576.78	4194875.30	2.91427	654876.78	4194875.30	2.41018
655176.78	4194875.30	1.95056	655476.78	4194875.30	1.49934
655776.78	4194875.30	1.16788	656076.78	4194875.30	0.92781
656376.78	4194875.30	0.75149	656676.78	4194875.30	0.61920
653676.78	4195175.30	0.89439	653976.78	4195175.30	1.18231
654276.78	4195175.30	1.39473	654576.78	4195175.30	1.32890
654876.78	4195175.30	1.16986	655176.78	4195175.30	1.05329
655476.78	4195175.30	0.89907	655776.78	4195175.30	0.75350
656076.78	4195175.30	0.63776	656376.78	4195175.30	0.54686
656676.78	4195175.30	0.47238	653676.78	4195475.30	0.73917
653976.78	4195475.30	0.84400	654276.78	4195475.30	0.85115
654576.78	4195475.30	0.77490	654876.78	4195475.30	0.71834
655176.78	4195475.30	0.67092	655476.78	4195475.30	0.60589
655776.78	4195475.30	0.53354	656076.78	4195475.30	0.46732
656376.78	4195475.30	0.41143	656676.78	4195475.30	0.36544

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE4 ***
INCLUDING SOURCE(S): L0010552 , L0010553 , L0010554 , L0010555 , L0010556 ,

L0010557 , L0010558 , L0010559 , L0010560 , L0010561 , L0010562 , L0010563 , L0010564 ,
L0010565 , L0010566 , L0010567 , L0010568 , L0010569 , L0010570 , L0010571 , L0010572 ,
L0010573 , L0010574 , L0010575 , L0010576 , L0010577 , L0010578 , L0010579 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.80363	656126.40	4192764.99	0.80363
656103.65	4192731.89	0.79054	656093.30	4192690.51	0.76734
656217.44	4192771.20	0.77392	656279.50	4192760.85	0.74921
656341.57	4192727.75	0.71321	656366.40	4192707.06	0.69510
653815.06	4193437.51	0.63963	653776.43	4193429.79	0.61879
653798.32	4193413.05	0.62093	653708.18	4193118.16	0.47971
653730.07	4193102.71	0.48062	653753.25	4193085.97	0.48135
653800.90	4193053.77	0.48338	653882.02	4192964.92	0.47532
653907.78	4192962.34	0.48133	653945.12	4192954.62	0.48898
654067.45	4192886.37	0.50141	654108.66	4192861.90	0.50604
654140.85	4192841.30	0.50957	654376.51	4192702.22	0.54700
654399.69	4192673.89	0.54551	654024.74	4193417.88	0.73421
653831.84	4193501.47	0.67918	653915.64	4193528.15	0.73881
653813.62	4193608.32	0.72438	653676.78	4192475.30	0.32022
653976.78	4192475.30	0.37264	654276.78	4192475.30	0.44567
654576.78	4192475.30	0.53069	654876.78	4192475.30	0.58663
655176.78	4192475.30	0.58032	655476.78	4192475.30	0.60196
655776.78	4192475.30	0.64153	656076.78	4192475.30	0.64396
656376.78	4192475.30	0.57471	656676.78	4192475.30	0.53477
653676.78	4192775.30	0.37857	653976.78	4192775.30	0.44219
654276.78	4192775.30	0.53510	654576.78	4192775.30	0.66208
654876.78	4192775.30	0.77680	655176.78	4192775.30	0.79315
655476.78	4192775.30	0.82883	655776.78	4192775.30	0.88186
656076.78	4192775.30	0.83135	656376.78	4192775.30	0.74020
656676.78	4192775.30	0.68955	653676.78	4193075.30	0.45836
653976.78	4193075.30	0.54336	654276.78	4193075.30	0.66285
654576.78	4193075.30	0.84790	654876.78	4193075.30	1.07011
655176.78	4193075.30	1.16634	655476.78	4193075.30	1.23424
655776.78	4193075.30	1.29442	656076.78	4193075.30	1.12294
656376.78	4193075.30	1.01874	656676.78	4193075.30	0.87965
653676.78	4193375.30	0.55779	653976.78	4193375.30	0.68488
654276.78	4193375.30	0.86277	654576.78	4193375.30	1.13877
654876.78	4193375.30	1.55779	655176.78	4193375.30	1.91981
655476.78	4193375.30	2.09920	655776.78	4193375.30	2.02206
656076.78	4193375.30	1.72085	656376.78	4193375.30	1.39230
656676.78	4193375.30	1.09265	653676.78	4193675.30	0.67863
653976.78	4193675.30	0.87489	654276.78	4193675.30	1.16163
654576.78	4193675.30	1.64223	654876.78	4193675.30	2.50310
655176.78	4193675.30	3.77227	655476.78	4193675.30	4.76711
655776.78	4193675.30	3.86916	656076.78	4193675.30	2.62705

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE4 ***

INCLUDING SOURCE(S): L0010552 , L0010553 , L0010554 , L0010555 , L0010556 ,
L0010557 , L0010558 , L0010559 , L0010560 , L0010561 , L0010562 , L0010563 , L0010564 ,
L0010565 , L0010566 , L0010567 , L0010568 , L0010569 , L0010570 , L0010571 , L0010572 ,
L0010573 , L0010574 , L0010575 , L0010576 , L0010577 , L0010578 , L0010579 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.77432	656676.78	4193675.30	1.26283
653676.78	4193975.30	0.81657	653976.78	4193975.30	1.10656
654276.78	4193975.30	1.59466	654576.78	4193975.30	2.49635
654876.78	4193975.30	4.64855	655176.78	4193975.30	11.22604
655476.78	4193975.30	36.30462	655776.78	4193975.30	6.94380
656076.78	4193975.30	3.31141	656376.78	4193975.30	1.98673
656676.78	4193975.30	1.34422	653676.78	4194275.30	0.94140
653976.78	4194275.30	1.32099	654276.78	4194275.30	2.01784
654576.78	4194275.30	3.56160	654876.78	4194275.30	8.30221
655176.78	4194275.30	45.83337	655476.78	4194275.30	17.82582
655776.78	4194275.30	5.99079	656076.78	4194275.30	3.06145
656376.78	4194275.30	1.87953	656676.78	4194275.30	1.28627
653676.78	4194575.30	0.95725	653976.78	4194575.30	1.34653
654276.78	4194575.30	2.07173	654576.78	4194575.30	3.74401
654876.78	4194575.30	10.47239	655176.78	4194575.30	27.03328
655476.78	4194575.30	6.69146	655776.78	4194575.30	3.42122
656076.78	4194575.30	2.12436	656376.78	4194575.30	1.46124
656676.78	4194575.30	1.06889	653676.78	4194875.30	0.85712
653976.78	4194875.30	1.16000	654276.78	4194875.30	1.65380
654576.78	4194875.30	2.58033	654876.78	4194875.30	3.83251
655176.78	4194875.30	3.10110	655476.78	4194875.30	2.33239
655776.78	4194875.30	1.72229	656076.78	4194875.30	1.29572
656376.78	4194875.30	1.00447	656676.78	4194875.30	0.79986
653676.78	4195175.30	0.73430	653976.78	4195175.30	0.93651
654276.78	4195175.30	1.25325	654576.78	4195175.30	1.58730
654876.78	4195175.30	1.54995	655176.78	4195175.30	1.34325
655476.78	4195175.30	1.18459	655776.78	4195175.30	0.99028
656076.78	4195175.30	0.81954	656376.78	4195175.30	0.68721
656676.78	4195175.30	0.58255	653676.78	4195475.30	0.61601
653976.78	4195475.30	0.76998	654276.78	4195475.30	0.91592
654576.78	4195475.30	0.94062	654876.78	4195475.30	0.86022
655176.78	4195475.30	0.78963	655476.78	4195475.30	0.73219
655776.78	4195475.30	0.65287	656076.78	4195475.30	0.57051
656376.78	4195475.30	0.49548	656676.78	4195475.30	0.43493

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

*** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE5 ***

INCLUDING SOURCE(S): L0010946 , L0010947 , L0010948 , L0010949 , L0010950 ,
L0010951 , L0010952 , L0010953 , L0010954 , L0010955 , L0010956 , L0010957 , L0010958 ,
L0010959 , L0010960 , L0010961 , L0010962 , L0010963 , L0010964 , L0010965 , L0010966 ,
L0010967 , L0010968 , L0010969 , L0010970 , L0010971 , L0010972 , L0010973 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.83112	656126.40	4192764.99	0.80870
656103.65	4192731.89	0.77812	656093.30	4192690.51	0.74340
656217.44	4192771.20	0.81542	656279.50	4192760.85	0.80021
656341.57	4192727.75	0.76342	656366.40	4192707.06	0.74356
653815.06	4193437.51	0.49227	653776.43	4193429.79	0.47829
653798.32	4193413.05	0.48011	653708.18	4193118.16	0.38635
653730.07	4193102.71	0.38731	653753.25	4193085.97	0.38817
653800.90	4193053.77	0.39022	653882.02	4192964.92	0.38502
653907.78	4192962.34	0.38919	653945.12	4192954.62	0.39438
654067.45	4192886.37	0.40131	654108.66	4192861.90	0.40351
654140.85	4192841.30	0.40498	654376.51	4192702.22	0.42443
654399.69	4192673.89	0.42344	654024.74	4193417.88	0.55519
653831.84	4193501.47	0.51721	653915.64	4193528.15	0.55575
653813.62	4193608.32	0.54373	653676.78	4192475.30	0.26942
653976.78	4192475.30	0.30580	654276.78	4192475.30	0.35480
654576.78	4192475.30	0.42247	654876.78	4192475.30	0.50094
655176.78	4192475.30	0.55202	655476.78	4192475.30	0.54289
655776.78	4192475.30	0.55966	656076.78	4192475.30	0.59933
656376.78	4192475.30	0.60729	656676.78	4192475.30	0.55036
653676.78	4192775.30	0.31502	653976.78	4192775.30	0.35932
654276.78	4192775.30	0.41826	654576.78	4192775.30	0.50376
654876.78	4192775.30	0.61969	655176.78	4192775.30	0.72453
655476.78	4192775.30	0.73383	655776.78	4192775.30	0.76218
656076.78	4192775.30	0.81415	656376.78	4192775.30	0.78608
656676.78	4192775.30	0.69555	653676.78	4193075.30	0.37152
653976.78	4193075.30	0.43223	654276.78	4193075.30	0.50960
654576.78	4193075.30	0.61840	654876.78	4193075.30	0.78505
655176.78	4193075.30	0.98637	655476.78	4193075.30	1.06343
655776.78	4193075.30	1.11870	656076.78	4193075.30	1.18395
656376.78	4193075.30	1.04687	656676.78	4193075.30	0.94543
653676.78	4193375.30	0.43739	653976.78	4193375.30	0.52364
654276.78	4193375.30	0.63726	654576.78	4193375.30	0.79622
654876.78	4193375.30	1.03858	655176.78	4193375.30	1.40778
655476.78	4193375.30	1.71283	655776.78	4193375.30	1.86256
656076.78	4193375.30	1.84231	656376.78	4193375.30	1.56195
656676.78	4193375.30	1.29980	653676.78	4193675.30	0.51273
653976.78	4193675.30	0.63689	654276.78	4193675.30	0.80700
654576.78	4193675.30	1.06029	654876.78	4193675.30	1.46470
655176.78	4193675.30	2.18896	655476.78	4193675.30	3.28324
655776.78	4193675.30	4.07746	656076.78	4193675.30	3.37046

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*** AERMET - VERSION 18081 *** ***

*** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE5 ***

INCLUDING SOURCE(S): L0010946 , L0010947 , L0010948 , L0010949 , L0010950 ,
L0010951 , L0010952 , L0010953 , L0010954 , L0010955 , L0010956 , L0010957 , L0010958 ,
L0010959 , L0010960 , L0010961 , L0010962 , L0010963 , L0010964 , L0010965 , L0010966 ,
L0010967 , L0010968 , L0010969 , L0010970 , L0010971 , L0010972 , L0010973 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	2.40320	656676.78	4193675.30	1.68881
653676.78	4193975.30	0.59691	653976.78	4193975.30	0.76489
654276.78	4193975.30	1.02158	654576.78	4193975.30	1.43301
654876.78	4193975.30	2.18508	655176.78	4193975.30	3.90666
655476.78	4193975.30	9.24069	655776.78	4193975.30	23.71777
656076.78	4193975.30	6.20813	656376.78	4193975.30	3.17444
656676.78	4193975.30	1.95960	653676.78	4194275.30	0.67671
653976.78	4194275.30	0.88806	654276.78	4194275.30	1.22557
654576.78	4194275.30	1.82664	654876.78	4194275.30	3.07052
655176.78	4194275.30	6.50312	655476.78	4194275.30	26.31278
655776.78	4194275.30	19.84388	656076.78	4194275.30	6.34883
656376.78	4194275.30	3.18970	656676.78	4194275.30	1.94176
653676.78	4194575.30	0.70514	653976.78	4194575.30	0.93161
654276.78	4194575.30	1.30160	654576.78	4194575.30	1.97733
654876.78	4194575.30	3.46410	655176.78	4194575.30	8.32338
655476.78	4194575.30	85.93032	655776.78	4194575.30	10.43114
656076.78	4194575.30	4.26998	656376.78	4194575.30	2.43647
656676.78	4194575.30	1.60509	653676.78	4194875.30	0.67079
653976.78	4194875.30	0.87304	654276.78	4194875.30	1.18642
654576.78	4194875.30	1.72377	654876.78	4194875.30	2.80743
655176.78	4194875.30	5.44629	655476.78	4194875.30	6.17344
655776.78	4194875.30	3.57185	656076.78	4194875.30	2.26260
656376.78	4194875.30	1.56566	656676.78	4194875.30	1.15375
653676.78	4195175.30	0.60308	653976.78	4195175.30	0.75801
654276.78	4195175.30	0.98207	654576.78	4195175.30	1.33002
654876.78	4195175.30	1.83814	655176.78	4195175.30	2.10047
655476.78	4195175.30	1.76724	655776.78	4195175.30	1.49755
656076.78	4195175.30	1.19645	656376.78	4195175.30	0.96147
656676.78	4195175.30	0.78475	653676.78	4195475.30	0.52620
653976.78	4195475.30	0.64050	654276.78	4195475.30	0.80107
654576.78	4195475.30	1.00246	654876.78	4195475.30	1.11296
655176.78	4195475.30	1.04955	655476.78	4195475.30	0.93706
655776.78	4195475.30	0.85922	656076.78	4195475.30	0.75054
656376.78	4195475.30	0.64316	656676.78	4195475.30	0.55179

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*** AERMET - VERSION 18081 *** ***

*** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE6 ***

INCLUDING SOURCE(S): L0011395 , L0011396 , L0011397 , L0011398 , L0011399 ,
L0011400 , L0011401 , L0011402 , L0011403 , L0011404 , L0011405 , L0011406 , L0011407 ,
L0011408 , L0011409 , L0011410 , L0011411 , L0011412 , L0011413 , L0011414 , L0011415 ,
L0011416 , L0011417 , L0011418 , L0011419 , L0011420 , L0011421 , L0011422 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.97893	656126.40	4192764.99	0.93318
656103.65	4192731.89	0.88687	656093.30	4192690.51	0.84044
656217.44	4192771.20	0.98093	656279.50	4192760.85	0.98891
656341.57	4192727.75	0.96175	656366.40	4192707.06	0.94150
653815.06	4193437.51	0.42376	653776.43	4193429.79	0.41239
653798.32	4193413.05	0.41451	653708.18	4193118.16	0.34425
653730.07	4193102.71	0.34627	653753.25	4193085.97	0.34842
653800.90	4193053.77	0.35328	653882.02	4192964.92	0.35609
653907.78	4192962.34	0.36057	653945.12	4192954.62	0.36644
654067.45	4192886.37	0.37651	654108.66	4192861.90	0.37874
654140.85	4192841.30	0.37985	654376.51	4192702.22	0.38509
654399.69	4192673.89	0.38211	654024.74	4193417.88	0.47768
653831.84	4193501.47	0.44158	653915.64	4193528.15	0.47179
653813.62	4193608.32	0.45726	653676.78	4192475.30	0.25815
653976.78	4192475.30	0.28692	654276.78	4192475.30	0.32204
654576.78	4192475.30	0.37094	654876.78	4192475.30	0.43977
655176.78	4192475.30	0.54021	655476.78	4192475.30	0.65224
655776.78	4192475.30	0.68187	656076.78	4192475.30	0.65961
656376.78	4192475.30	0.72721	656676.78	4192475.30	0.74450
653676.78	4192775.30	0.29664	653976.78	4192775.30	0.33961
654276.78	4192775.30	0.38702	654576.78	4192775.30	0.44478
654876.78	4192775.30	0.52979	655176.78	4192775.30	0.65977
655476.78	4192775.30	0.85236	655776.78	4192775.30	0.95115
656076.78	4192775.30	0.92681	656376.78	4192775.30	1.02655
656676.78	4192775.30	1.00901	653676.78	4193075.30	0.33284
653976.78	4193075.30	0.39380	654276.78	4193075.30	0.46920
654576.78	4193075.30	0.55779	654876.78	4193075.30	0.66680
655176.78	4193075.30	0.83832	655476.78	4193075.30	1.13869
655776.78	4193075.30	1.43534	656076.78	4193075.30	1.42535
656376.78	4193075.30	1.58156	656676.78	4193075.30	1.41350
653676.78	4193375.30	0.37990	653976.78	4193375.30	0.45307
654276.78	4193375.30	0.55300	654576.78	4193375.30	0.69545
654876.78	4193375.30	0.88926	655176.78	4193375.30	1.14342
655476.78	4193375.30	1.59148	655776.78	4193375.30	2.42041
656076.78	4193375.30	2.57661	656376.78	4193375.30	2.73201
656676.78	4193375.30	2.26760	653676.78	4193675.30	0.42964
653976.78	4193675.30	0.52643	654276.78	4193675.30	0.66002
654576.78	4193675.30	0.85712	654876.78	4193675.30	1.15860
655176.78	4193675.30	1.66846	655476.78	4193675.30	2.55239
655776.78	4193675.30	4.69694	656076.78	4193675.30	6.60370

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE6 ***

INCLUDING SOURCE(S): L0011395 ,L0011396 ,L0011397 ,L0011398 ,L0011399 ,
L0011400 ,L0011401 ,L0011402 ,L0011403 ,L0011404 ,L0011405 ,L0011406 ,L0011407 ,
L0011408 ,L0011409 ,L0011410 ,L0011411 ,L0011412 ,L0011413 ,L0011414 ,L0011415 ,
L0011416 ,L0011417 ,L0011418 ,L0011419 ,L0011420 ,L0011421 ,L0011422 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	5.78102	656676.78	4193675.30	3.74103
653676.78	4193975.30	0.48137	653976.78	4193975.30	0.60037
654276.78	4193975.30	0.77415	654576.78	4193975.30	1.04236
654876.78	4193975.30	1.50189	655176.78	4193975.30	2.39735
655476.78	4193975.30	4.58794	655776.78	4193975.30	13.04391
656076.78	4193975.30	71.00666	656376.78	4193975.30	12.24374
656676.78	4193975.30	4.79801	653676.78	4194275.30	0.51569
653976.78	4194275.30	0.64680	654276.78	4194275.30	0.83918
654576.78	4194275.30	1.14192	654876.78	4194275.30	1.66693
655176.78	4194275.30	2.73139	655476.78	4194275.30	5.50125
655776.78	4194275.30	17.94542	656076.78	4194275.30	41.29965
656376.78	4194275.30	8.44224	656676.78	4194275.30	3.85847
653676.78	4194575.30	0.48679	653976.78	4194575.30	0.60186
654276.78	4194575.30	0.76991	654576.78	4194575.30	1.02573
654876.78	4194575.30	1.43645	655176.78	4194575.30	2.14137
655476.78	4194575.30	3.52529	655776.78	4194575.30	5.06688
656076.78	4194575.30	3.99132	656376.78	4194575.30	2.79685
656676.78	4194575.30	1.96797	653676.78	4194875.30	0.45326
653976.78	4194875.30	0.55330	654276.78	4194875.30	0.68581
654576.78	4194875.30	0.87035	654876.78	4194875.30	1.13520
655176.78	4194875.30	1.56410	655476.78	4194875.30	1.97933
655776.78	4194875.30	1.85347	656076.78	4194875.30	1.62619
656376.78	4194875.30	1.38207	656676.78	4194875.30	1.10441
653676.78	4195175.30	0.41109	653976.78	4195175.30	0.48791
654276.78	4195175.30	0.58586	654576.78	4195175.30	0.71766
654876.78	4195175.30	0.91374	655176.78	4195175.30	1.08988
655476.78	4195175.30	1.10703	655776.78	4195175.30	0.97935
656076.78	4195175.30	0.91920	656376.78	4195175.30	0.83272
656676.78	4195175.30	0.72209	653676.78	4195475.30	0.36667
653976.78	4195475.30	0.42496	654276.78	4195475.30	0.50317
654576.78	4195475.30	0.61092	654876.78	4195475.30	0.70456
655176.78	4195475.30	0.72653	655476.78	4195475.30	0.69940
655776.78	4195475.30	0.62508	656076.78	4195475.30	0.60407
656376.78	4195475.30	0.56014	656676.78	4195475.30	0.51197

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE7 ***

INCLUDING SOURCE(S): L0011551 , L0011552 , L0011553 , L0011554 , L0011555 ,
L0011556 , L0011557 , L0011558 , L0011559 , L0011560 , L0011561 , L0011562 , L0011563 ,
L0011564 , L0011565 , L0011566 , L0011567 , L0011568 , L0011569 , L0011570 , L0011571 ,
L0011572 , L0011573 , L0011574 , L0011575 , L0011576 , L0011577 , L0011578 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.98095	656126.40	4192764.99	0.95826
656103.65	4192731.89	0.92176	656093.30	4192690.51	0.87819
656217.44	4192771.20	0.94940	656279.50	4192760.85	0.92340
656341.57	4192727.75	0.88386	656366.40	4192707.06	0.86513
653815.06	4193437.51	0.35565	653776.43	4193429.79	0.34697
653798.32	4193413.05	0.34911	653708.18	4193118.16	0.29484
653730.07	4193102.71	0.29603	653753.25	4193085.97	0.29733
653800.90	4193053.77	0.30055	653882.02	4192964.92	0.30324
653907.78	4192962.34	0.30698	653945.12	4192954.62	0.31210
654067.45	4192886.37	0.32405	654108.66	4192861.90	0.32749
654140.85	4192841.30	0.32972	654376.51	4192702.22	0.34099
654399.69	4192673.89	0.33853	654024.74	4193417.88	0.39761
653831.84	4193501.47	0.36761	653915.64	4193528.15	0.38994
653813.62	4193608.32	0.37765	653676.78	4192475.30	0.23189
653976.78	4192475.30	0.25886	654276.78	4192475.30	0.28800
654576.78	4192475.30	0.32253	654876.78	4192475.30	0.37098
655176.78	4192475.30	0.43918	655476.78	4192475.30	0.53845
655776.78	4192475.30	0.65695	656076.78	4192475.30	0.69564
656376.78	4192475.30	0.66943	656676.78	4192475.30	0.73915
653676.78	4192775.30	0.25783	653976.78	4192775.30	0.29656
654276.78	4192775.30	0.34014	654576.78	4192775.30	0.38857
654876.78	4192775.30	0.44576	655176.78	4192775.30	0.52951
655476.78	4192775.30	0.65776	655776.78	4192775.30	0.85376
656076.78	4192775.30	0.97127	656376.78	4192775.30	0.94364
656676.78	4192775.30	1.04799	653676.78	4193075.30	0.28546
653976.78	4193075.30	0.33164	654276.78	4193075.30	0.39249
654576.78	4193075.30	0.46944	654876.78	4193075.30	0.56034
655176.78	4193075.30	0.66851	655476.78	4193075.30	0.83662
655776.78	4193075.30	1.13378	656076.78	4193075.30	1.46304
656376.78	4193075.30	1.45297	656676.78	4193075.30	1.62776
653676.78	4193375.30	0.32277	653976.78	4193375.30	0.37955
654276.78	4193375.30	0.45188	654576.78	4193375.30	0.55095
654876.78	4193375.30	0.69377	655176.78	4193375.30	0.89098
655476.78	4193375.30	1.14394	655776.78	4193375.30	1.58949
656076.78	4193375.30	2.45110	656376.78	4193375.30	2.63977
656676.78	4193375.30	2.85966	653676.78	4193675.30	0.35727
653976.78	4193675.30	0.42788	654276.78	4193675.30	0.52274
654576.78	4193675.30	0.65808	654876.78	4193675.30	0.85099
655176.78	4193675.30	1.15132	655476.78	4193675.30	1.66446
655776.78	4193675.30	2.57431	656076.78	4193675.30	4.65884

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE7 ***

INCLUDING SOURCE(S): L0011551 , L0011552 , L0011553 , L0011554 , L0011555 ,
L0011556 , L0011557 , L0011558 , L0011559 , L0011560 , L0011561 , L0011562 , L0011563 ,
L0011564 , L0011565 , L0011566 , L0011567 , L0011568 , L0011569 , L0011570 , L0011571 ,
L0011572 , L0011573 , L0011574 , L0011575 , L0011576 , L0011577 , L0011578 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	6.82056	656676.78	4193675.30	6.18695
653676.78	4193975.30	0.39365	653976.78	4193975.30	0.47836
654276.78	4193975.30	0.59626	654576.78	4193975.30	0.76664
654876.78	4193975.30	1.03283	655176.78	4193975.30	1.48607
655476.78	4193975.30	2.37175	655776.78	4193975.30	4.52347
656076.78	4193975.30	12.73668	656376.78	4193975.30	86.58656
656676.78	4193975.30	13.79027	653676.78	4194275.30	0.41858
653976.78	4194275.30	0.51043	654276.78	4194275.30	0.63826
654576.78	4194275.30	0.82533	654876.78	4194275.30	1.11691
655176.78	4194275.30	1.61883	655476.78	4194275.30	2.61875
655776.78	4194275.30	5.13545	656076.78	4194275.30	15.11271
656376.78	4194275.30	26.16278	656676.78	4194275.30	8.23601
653676.78	4194575.30	0.39727	653976.78	4194575.30	0.47688
654276.78	4194575.30	0.58824	654576.78	4194575.30	0.75098
654876.78	4194575.30	0.99706	655176.78	4194575.30	1.38457
655476.78	4194575.30	2.03327	655776.78	4194575.30	3.27008
656076.78	4194575.30	4.51413	656376.78	4194575.30	3.64702
656676.78	4194575.30	2.66340	653676.78	4194875.30	0.37215
653976.78	4194875.30	0.44721	654276.78	4194875.30	0.54227
654576.78	4194875.30	0.66879	654876.78	4194875.30	0.84455
655176.78	4194875.30	1.09334	655476.78	4194875.30	1.49765
655776.78	4194875.30	1.87053	656076.78	4194875.30	1.75888
656376.78	4194875.30	1.54891	656676.78	4194875.30	1.33673
653676.78	4195175.30	0.34577	653976.78	4195175.30	0.40335
654276.78	4195175.30	0.47794	654576.78	4195175.30	0.57190
654876.78	4195175.30	0.69784	655176.78	4195175.30	0.88597
655476.78	4195175.30	1.05060	655776.78	4195175.30	1.06534
656076.78	4195175.30	0.94805	656376.78	4195175.30	0.88980
656676.78	4195175.30	0.80996	653676.78	4195475.30	0.31338
653976.78	4195475.30	0.36028	654276.78	4195475.30	0.41648
654576.78	4195475.30	0.49221	654876.78	4195475.30	0.59666
655176.78	4195475.30	0.68566	655476.78	4195475.30	0.70547
655776.78	4195475.30	0.68140	656076.78	4195475.30	0.60926
656376.78	4195475.30	0.58903	656676.78	4195475.30	0.54810

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE8 ***

INCLUDING SOURCE(S): L0011673 ,L0011674 ,L0011675 ,L0011676 ,L0011677 ,
L0011678 ,L0011679 ,L0011680 ,L0011681 ,L0011682 ,L0011683 ,L0011684 ,L0011685 ,
L0011686 ,L0011687 ,L0011688 ,L0011689 ,L0011690 ,L0011691 ,L0011692 ,L0011693 ,
L0011694 ,L0011695 ,L0011696 ,L0011697 ,L0011698 ,L0011699 ,L0011700 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	1.21952	656126.40	4192764.99	1.18266
656103.65	4192731.89	1.13333	656093.30	4192690.51	1.07306
656217.44	4192771.20	1.20207	656279.50	4192760.85	1.21682
656341.57	4192727.75	1.19668	656366.40	4192707.06	1.17466
653815.06	4193437.51	0.41854	653776.43	4193429.79	0.40721
653798.32	4193413.05	0.41032	653708.18	4193118.16	0.34680
653730.07	4193102.71	0.34820	653753.25	4193085.97	0.34958
653800.90	4193053.77	0.35283	653882.02	4192964.92	0.35399
653907.78	4192962.34	0.35865	653945.12	4192954.62	0.36505
654067.45	4192886.37	0.38113	654108.66	4192861.90	0.38646
654140.85	4192841.30	0.39021	654376.51	4192702.22	0.41018
654399.69	4192673.89	0.40738	654024.74	4193417.88	0.47631
653831.84	4193501.47	0.43401	653915.64	4193528.15	0.46346
653813.62	4193608.32	0.44795	653676.78	4192475.30	0.26625
653976.78	4192475.30	0.30177	654276.78	4192475.30	0.34082
654576.78	4192475.30	0.38583	654876.78	4192475.30	0.45094
655176.78	4192475.30	0.54658	655476.78	4192475.30	0.69310
655776.78	4192475.30	0.83075	656076.78	4192475.30	0.82230
656376.78	4192475.30	0.87066	656676.78	4192475.30	0.92168
653676.78	4192775.30	0.29587	653976.78	4192775.30	0.34653
654276.78	4192775.30	0.40709	654576.78	4192775.30	0.47616
654876.78	4192775.30	0.55630	655176.78	4192775.30	0.67758
655476.78	4192775.30	0.87751	655776.78	4192775.30	1.16573
656076.78	4192775.30	1.21399	656376.78	4192775.30	1.30439
656676.78	4192775.30	1.34745	653676.78	4193075.30	0.33450
653976.78	4193075.30	0.39222	654276.78	4193075.30	0.47114
654576.78	4193075.30	0.58122	654876.78	4193075.30	0.72262
655176.78	4193075.30	0.89324	655476.78	4193075.30	1.16935
655776.78	4193075.30	1.70935	656076.78	4193075.30	2.01669
656376.78	4193075.30	2.20425	656676.78	4193075.30	2.06501
653676.78	4193375.30	0.37629	653976.78	4193375.30	0.45354
654276.78	4193375.30	0.55677	654576.78	4193375.30	0.69862
654876.78	4193375.30	0.90873	655176.78	4193375.30	1.24465
655476.78	4193375.30	1.73463	655776.78	4193375.30	2.68401
656076.78	4193375.30	4.19915	656376.78	4193375.30	4.71464
656676.78	4193375.30	3.79546	653676.78	4193675.30	0.42027
653976.78	4193675.30	0.51419	654276.78	4193675.30	0.64455
654576.78	4193675.30	0.84016	654876.78	4193675.30	1.14524

655176.78 4193675.30 1.68019 655476.78 4193675.30 2.73803
655776.78 4193675.30 5.34574 656076.78 4193675.30 14.55194
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*
*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE8 ***
INCLUDING SOURCE(S): L0011673 , L0011674 , L0011675 , L0011676 , L0011677 ,
L0011678 , L0011679 , L0011680 , L0011681 , L0011682 , L0011683 , L0011684 , L0011685 ,
L0011686 , L0011687 , L0011688 , L0011689 , L0011690 , L0011691 , L0011692 , L0011693 ,
L0011694 , L0011695 , L0011696 , L0011697 , L0011698 , L0011699 , L0011700 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	15.70999	656676.78	4193675.30	6.93690
653676.78	4193975.30	0.45801	653976.78	4193975.30	0.56728
654276.78	4193975.30	0.72503	654576.78	4193975.30	0.96458
654876.78	4193975.30	1.36482	655176.78	4193975.30	2.11791
655476.78	4193975.30	3.85752	655776.78	4193975.30	9.88815
656076.78	4193975.30	90.47872	656376.78	4193975.30	26.88870
656676.78	4193975.30	6.98884	653676.78	4194275.30	0.45450
653976.78	4194275.30	0.55395	654276.78	4194275.30	0.69367
654576.78	4194275.30	0.90434	654876.78	4194275.30	1.24805
655176.78	4194275.30	1.85322	655476.78	4194275.30	3.00848
655776.78	4194275.30	5.64178	656076.78	4194275.30	6.56886
656376.78	4194275.30	4.65158	656676.78	4194275.30	2.96629
653676.78	4194575.30	0.41783	653976.78	4194575.30	0.51084
654276.78	4194575.30	0.63559	654576.78	4194575.30	0.80538
654876.78	4194575.30	1.05138	655176.78	4194575.30	1.41806
655476.78	4194575.30	2.05758	655776.78	4194575.30	2.47616
656076.78	4194575.30	2.10889	656376.78	4194575.30	1.85284
656676.78	4194575.30	1.46068	653676.78	4194875.30	0.38993
653976.78	4194875.30	0.46175	654276.78	4194875.30	0.55607
654576.78	4194875.30	0.67873	654876.78	4194875.30	0.84705
655176.78	4194875.30	1.10781	655476.78	4194875.30	1.28962
655776.78	4194875.30	1.25250	656076.78	4194875.30	1.09801
656376.78	4194875.30	1.01391	656676.78	4194875.30	0.88901
653676.78	4195175.30	0.35173	653976.78	4195175.30	0.40913
654276.78	4195175.30	0.47864	654576.78	4195175.30	0.57481
654876.78	4195175.30	0.70880	655176.78	4195175.30	0.80511
655476.78	4195175.30	0.81404	655776.78	4195175.30	0.75307
656076.78	4195175.30	0.69267	656376.78	4195175.30	0.65486
656676.78	4195175.30	0.60109	653676.78	4195475.30	0.31474
653976.78	4195475.30	0.35968	654276.78	4195475.30	0.42109
654576.78	4195475.30	0.49971	654876.78	4195475.30	0.55792
655176.78	4195475.30	0.56946	655476.78	4195475.30	0.55809
655776.78	4195475.30	0.50751	656076.78	4195475.30	0.48477
656376.78	4195475.30	0.46454	656676.78	4195475.30	0.43324

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE9 ***

INCLUDING SOURCE(S): L0011741 , L0011742 , L0011743 , L0011744 , L0011745 ,
L0011746 , L0011747 , L0011748 , L0011749 , L0011750 , L0011751 , L0011752 , L0011753 ,
L0011754 , L0011755 , L0011756 , L0011757 , L0011758 , L0011759 , L0011760 , L0011761 ,
L0011762 , L0011763 , L0011764 , L0011765 , L0011766 , L0011767 , L0011768 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	1.35867	656126.40	4192764.99	1.30241
656103.65	4192731.89	1.23337	656093.30	4192690.51	1.15916
656217.44	4192771.20	1.33653	656279.50	4192760.85	1.32476
656341.57	4192727.75	1.26417	656366.40	4192707.06	1.22679
653815.06	4193437.51	0.51449	653776.43	4193429.79	0.49882
653798.32	4193413.05	0.50302	653708.18	4193118.16	0.41013
653730.07	4193102.71	0.41213	653753.25	4193085.97	0.41434
653800.90	4193053.77	0.41992	653882.02	4192964.92	0.42467
653907.78	4192962.34	0.43106	653945.12	4192954.62	0.43976
654067.45	4192886.37	0.45803	654108.66	4192861.90	0.46254
654140.85	4192841.30	0.46512	654376.51	4192702.22	0.47520
654399.69	4192673.89	0.47047	654024.74	4193417.88	0.59442
653831.84	4193501.47	0.53573	653915.64	4193528.15	0.57723
653813.62	4193608.32	0.55501	653676.78	4192475.30	0.30275
653976.78	4192475.30	0.34186	654276.78	4192475.30	0.38733
654576.78	4192475.30	0.45320	654876.78	4192475.30	0.55019
655176.78	4192475.30	0.69830	655476.78	4192475.30	0.83151
655776.78	4192475.30	0.81831	656076.78	4192475.30	0.87179
656376.78	4192475.30	0.91972	656676.78	4192475.30	0.85304
653676.78	4192775.30	0.34827	653976.78	4192775.30	0.40918
654276.78	4192775.30	0.47824	654576.78	4192775.30	0.55878
654876.78	4192775.30	0.68213	655176.78	4192775.30	0.88571
655476.78	4192775.30	1.17174	655776.78	4192775.30	1.20784
656076.78	4192775.30	1.30339	656376.78	4192775.30	1.33939
656676.78	4192775.30	1.15737	653676.78	4193075.30	0.39424
653976.78	4193075.30	0.47434	654276.78	4193075.30	0.58515
654576.78	4193075.30	0.72679	654876.78	4193075.30	0.89858
655176.78	4193075.30	1.18126	655476.78	4193075.30	1.72954
655776.78	4193075.30	2.00978	656076.78	4193075.30	2.20269
656376.78	4193075.30	2.03899	656676.78	4193075.30	1.75970
653676.78	4193375.30	0.45627	653976.78	4193375.30	0.56086
654276.78	4193375.30	0.70340	654576.78	4193375.30	0.91624
654876.78	4193375.30	1.25860	655176.78	4193375.30	1.75648
655476.78	4193375.30	2.71683	655776.78	4193375.30	4.17838
656076.78	4193375.30	4.67343	656376.78	4193375.30	3.73798
656676.78	4193375.30	2.65469	653676.78	4193675.30	0.51723

653976.78	4193675.30	0.65069	654276.78	4193675.30	0.84643
654576.78	4193675.30	1.16255	654876.78	4193675.30	1.70531
655176.78	4193675.30	2.78354	655476.78	4193675.30	5.40570
655776.78	4193675.30	14.72704	656076.78	4193675.30	15.13690

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE9 ***

INCLUDING SOURCE(S): L0011741 , L0011742 , L0011743 , L0011744 , L0011745 ,
L0011746 , L0011747 , L0011748 , L0011749 , L0011750 , L0011751 , L0011752 , L0011753 ,
L0011754 , L0011755 , L0011756 , L0011757 , L0011758 , L0011759 , L0011760 , L0011761 ,
L0011762 , L0011763 , L0011764 , L0011765 , L0011766 , L0011767 , L0011768 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	6.72912	656676.78	4193675.30	3.36414
653676.78	4193975.30	0.57160	653976.78	4193975.30	0.73165
654276.78	4193975.30	0.97749	654576.78	4193975.30	1.38466
654876.78	4193975.30	2.15754	655176.78	4193975.30	3.95697
655476.78	4193975.30	10.37093	655776.78	4193975.30	108.45660
656076.78	4193975.30	25.50941	656376.78	4193975.30	6.79842
656676.78	4193975.30	3.23418	653676.78	4194275.30	0.55841
653976.78	4194275.30	0.70056	654276.78	4194275.30	0.91482
654576.78	4194275.30	1.26647	654876.78	4194275.30	1.88600
655176.78	4194275.30	3.07461	655476.78	4194275.30	5.81012
655776.78	4194275.30	6.53129	656076.78	4194275.30	4.60362
656376.78	4194275.30	2.94032	656676.78	4194275.30	2.02427
653676.78	4194575.30	0.51489	653976.78	4194575.30	0.64134
654276.78	4194575.30	0.81373	654576.78	4194575.30	1.06409
654876.78	4194575.30	1.43771	655176.78	4194575.30	2.09107
655476.78	4194575.30	2.49142	655776.78	4194575.30	2.11532
656076.78	4194575.30	1.84654	656376.78	4194575.30	1.45289
656676.78	4194575.30	1.13726	653676.78	4194875.30	0.46393
653976.78	4194875.30	0.56049	654276.78	4194875.30	0.68460
654576.78	4194875.30	0.85586	654876.78	4194875.30	1.12038
655176.78	4194875.30	1.29655	655476.78	4194875.30	1.25335
655776.78	4194875.30	1.10162	656076.78	4194875.30	1.01292
656376.78	4194875.30	0.88670	656676.78	4194875.30	0.74289
653676.78	4195175.30	0.41181	653976.78	4195175.30	0.48192
654276.78	4195175.30	0.57951	654576.78	4195175.30	0.71480
654876.78	4195175.30	0.80909	655176.78	4195175.30	0.81628
655476.78	4195175.30	0.75236	655776.78	4195175.30	0.69408
656076.78	4195175.30	0.65431	656376.78	4195175.30	0.60023
656676.78	4195175.30	0.53063	653676.78	4195475.30	0.36175
653976.78	4195475.30	0.42397	654276.78	4195475.30	0.50312
654576.78	4195475.30	0.56021	654876.78	4195475.30	0.57100
655176.78	4195475.30	0.55864	655476.78	4195475.30	0.50686

655776.78 4195475.30 0.48541 656076.78 4195475.30 0.46443
656376.78 4195475.30 0.43323 656676.78 4195475.30 0.39745
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK1 ***

INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.61805	656126.40	4192764.99	0.61671
656103.65	4192731.89	0.60682	656093.30	4192690.51	0.59055
656217.44	4192771.20	0.60015	656279.50	4192760.85	0.58286
656341.57	4192727.75	0.55814	656366.40	4192707.06	0.54625
653815.06	4193437.51	0.88468	653776.43	4193429.79	0.84582
653798.32	4193413.05	0.85373	653708.18	4193118.16	0.65603
653730.07	4193102.71	0.66175	653753.25	4193085.97	0.66809
653800.90	4193053.77	0.68193	653882.02	4192964.92	0.69327
653907.78	4192962.34	0.70866	653945.12	4192954.62	0.72843
654067.45	4192886.37	0.75116	654108.66	4192861.90	0.74770
654140.85	4192841.30	0.74051	654376.51	4192702.22	0.64442
654399.69	4192673.89	0.62438	654024.74	4193417.88	1.10678
653831.84	4193501.47	0.95132	653915.64	4193528.15	1.05472
653813.62	4193608.32	1.02721	653676.78	4192475.30	0.45283
653976.78	4192475.30	0.52689	654276.78	4192475.30	0.53746
654576.78	4192475.30	0.51769	654876.78	4192475.30	0.57052
655176.78	4192475.30	0.59732	655476.78	4192475.30	0.58111
655776.78	4192475.30	0.52741	656076.78	4192475.30	0.50448
656376.78	4192475.30	0.47498	656676.78	4192475.30	0.43322
653676.78	4192775.30	0.52696	653976.78	4192775.30	0.65490
654276.78	4192775.30	0.70192	654576.78	4192775.30	0.68026
654876.78	4192775.30	0.75829	655176.78	4192775.30	0.78786
655476.78	4192775.30	0.72291	655776.78	4192775.30	0.67597
656076.78	4192775.30	0.63108	656376.78	4192775.30	0.56613
656676.78	4192775.30	0.50102	653676.78	4193075.30	0.62353
653976.78	4193075.30	0.81746	654276.78	4193075.30	0.95281
654576.78	4193075.30	0.93529	654876.78	4193075.30	1.06543
655176.78	4193075.30	1.06281	655476.78	4193075.30	0.96597
655776.78	4193075.30	0.89023	656076.78	4193075.30	0.77829
656376.78	4193075.30	0.67010	656676.78	4193075.30	0.57390
653676.78	4193375.30	0.75740	653976.78	4193375.30	1.01245
654276.78	4193375.30	1.36540	654576.78	4193375.30	1.39103
654876.78	4193375.30	1.64443	655176.78	4193375.30	1.53310
655476.78	4193375.30	1.37995	655776.78	4193375.30	1.15262
656076.78	4193375.30	0.94194	656376.78	4193375.30	0.76666
656676.78	4193375.30	0.62828	653676.78	4193675.30	0.99177
653976.78	4193675.30	1.27294	654276.78	4193675.30	2.01484

654576.78 4193675.30 2.37497 654876.78 4193675.30 2.86862
655176.78 4193675.30 2.51666 655476.78 4193675.30 1.92355
655776.78 4193675.30 1.41804 656076.78 4193675.30 1.06339
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*
*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK1 ***
INCLUDING SOURCE(S): STCK1 ,
*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	0.82236	656676.78	4193675.30	0.65877
653676.78	4193975.30	1.32615	653976.78	4193975.30	1.78876
654276.78	4193975.30	2.68377	654576.78	4193975.30	5.61475
654876.78	4193975.30	6.78909	655176.78	4193975.30	3.89372
655476.78	4193975.30	2.33419	655776.78	4193975.30	1.55457
656076.78	4193975.30	1.12024	656376.78	4193975.30	0.85165
656676.78	4193975.30	0.67423	653676.78	4194275.30	1.83301
653976.78	4194275.30	2.81915	654276.78	4194275.30	4.24948
654576.78	4194275.30	108.83415	654876.78	4194275.30	9.65586
655176.78	4194275.30	3.99241	655476.78	4194275.30	2.27253
655776.78	4194275.30	1.49496	656076.78	4194275.30	1.07393
656376.78	4194275.30	0.81359	656676.78	4194275.30	0.64350
653676.78	4194575.30	1.76530	653976.78	4194575.30	2.73036
654276.78	4194575.30	4.70625	654576.78	4194575.30	2.19872
654876.78	4194575.30	2.27798	655176.78	4194575.30	2.07533
655476.78	4194575.30	1.56549	655776.78	4194575.30	1.18413
656076.78	4194575.30	0.91651	656376.78	4194575.30	0.72298
656676.78	4194575.30	0.58721	653676.78	4194875.30	1.40186
653976.78	4194875.30	1.97443	654276.78	4194875.30	1.77253
654576.78	4194875.30	1.25403	654876.78	4194875.30	1.13434
655176.78	4194875.30	1.02989	655476.78	4194875.30	0.92176
655776.78	4194875.30	0.81017	656076.78	4194875.30	0.68226
656376.78	4194875.30	0.56877	656676.78	4194875.30	0.48058
653676.78	4195175.30	1.12375	653976.78	4195175.30	1.16428
654276.78	4195175.30	0.94428	654576.78	4195175.30	0.80711
654876.78	4195175.30	0.74687	655176.78	4195175.30	0.66925
655476.78	4195175.30	0.60799	655776.78	4195175.30	0.54683
656076.78	4195175.30	0.49747	656376.78	4195175.30	0.44367
656676.78	4195175.30	0.39139	653676.78	4195475.30	0.78629
653976.78	4195475.30	0.73931	654276.78	4195475.30	0.61663
654576.78	4195475.30	0.56678	654876.78	4195475.30	0.52845
655176.78	4195475.30	0.49105	655476.78	4195475.30	0.44162
655776.78	4195475.30	0.40776	656076.78	4195475.30	0.36721
656376.78	4195475.30	0.33580	656676.78	4195475.30	0.31394

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK10 ***

INCLUDING SOURCE(S): STCK10 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.81118	656126.40	4192764.99	0.79752
656103.65	4192731.89	0.77445	656093.30	4192690.51	0.74560
656217.44	4192771.20	0.79040	656279.50	4192760.85	0.77562
656341.57	4192727.75	0.75323	656366.40	4192707.06	0.74207
653815.06	4193437.51	0.35257	653776.43	4193429.79	0.34421
653798.32	4193413.05	0.34581	653708.18	4193118.16	0.29487
653730.07	4193102.71	0.29585	653753.25	4193085.97	0.29689
653800.90	4193053.77	0.29955	653882.02	4192964.92	0.30115
653907.78	4192962.34	0.30423	653945.12	4192954.62	0.30843
654067.45	4192886.37	0.31776	654108.66	4192861.90	0.32044
654140.85	4192841.30	0.32219	654376.51	4192702.22	0.32906
654399.69	4192673.89	0.32639	654024.74	4193417.88	0.38646
653831.84	4193501.47	0.36632	653915.64	4193528.15	0.38643
653813.62	4193608.32	0.37848	653676.78	4192475.30	0.23572
653976.78	4192475.30	0.25946	654276.78	4192475.30	0.28265
654576.78	4192475.30	0.30911	654876.78	4192475.30	0.34611
655176.78	4192475.30	0.40145	655476.78	4192475.30	0.48815
655776.78	4192475.30	0.59011	656076.78	4192475.30	0.61460
656376.78	4192475.30	0.59717	656676.78	4192475.30	0.66614
653676.78	4192775.30	0.25977	653976.78	4192775.30	0.29420
654276.78	4192775.30	0.33006	654576.78	4192775.30	0.36641
654876.78	4192775.30	0.40775	655176.78	4192775.30	0.46797
655476.78	4192775.30	0.56973	655776.78	4192775.30	0.73048
656076.78	4192775.30	0.80816	656376.78	4192775.30	0.79824
656676.78	4192775.30	0.90937	653676.78	4193075.30	0.28633
653976.78	4193075.30	0.32574	654276.78	4193075.30	0.37479
654576.78	4193075.30	0.43552	654876.78	4193075.30	0.50130
655176.78	4193075.30	0.57049	655476.78	4193075.30	0.68061
655776.78	4193075.30	0.90482	656076.78	4193075.30	1.11643
656376.78	4193075.30	1.11673	656676.78	4193075.30	1.32736
653676.78	4193375.30	0.32312	653976.78	4193375.30	0.37060
654276.78	4193375.30	0.42687	654576.78	4193375.30	0.50272
654876.78	4193375.30	0.60593	655176.78	4193375.30	0.72716
655476.78	4193375.30	0.84781	655776.78	4193375.30	1.12472
656076.78	4193375.30	1.67052	656376.78	4193375.30	1.79487
656676.78	4193375.30	2.19822	653676.78	4193675.30	0.36119
653976.78	4193675.30	0.42325	654276.78	4193675.30	0.49516
654576.78	4193675.30	0.59990	654876.78	4193675.30	0.71662
655176.78	4193675.30	0.88441	655476.78	4193675.30	1.12962
655776.78	4193675.30	1.48222	656076.78	4193675.30	2.45991

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK10 ***
INCLUDING SOURCE(S): STCK10 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	3.60467	656676.78	4193675.30	4.43990
653676.78	4193975.30	0.39905	653976.78	4193975.30	0.47386
654276.78	4193975.30	0.57246	654576.78	4193975.30	0.69694
654876.78	4193975.30	0.87847	655176.78	4193975.30	1.14462
655476.78	4193975.30	1.55915	655776.78	4193975.30	2.20088
656076.78	4193975.30	3.00055	656376.78	4193975.30	18.79778
656676.78	4193975.30	9.87233	653676.78	4194275.30	0.42391
653976.78	4194275.30	0.50730	654276.78	4194275.30	0.61669
654576.78	4194275.30	0.76820	654876.78	4194275.30	0.98455
655176.78	4194275.30	1.32159	655476.78	4194275.30	1.88529
655776.78	4194275.30	2.94915	656076.78	4194275.30	5.95712
656376.78	4194275.30	3.64039	656676.78	4194275.30	4.47445
653676.78	4194575.30	0.40245	653976.78	4194575.30	0.47407
654276.78	4194575.30	0.56992	654576.78	4194575.30	0.70274
654876.78	4194575.30	0.89190	655176.78	4194575.30	1.16759
655476.78	4194575.30	1.59828	655776.78	4194575.30	2.33694
656076.78	4194575.30	2.56005	656376.78	4194575.30	1.56236
656676.78	4194575.30	1.44467	653676.78	4194875.30	0.37184
653976.78	4194875.30	0.44299	654276.78	4194875.30	0.52675
654576.78	4194875.30	0.63409	654876.78	4194875.30	0.77745
655176.78	4194875.30	0.97312	655476.78	4194875.30	1.26979
655776.78	4194875.30	1.46495	656076.78	4194875.30	1.17677
656376.78	4194875.30	0.95319	656676.78	4194875.30	0.88788
653676.78	4195175.30	0.35056	653976.78	4195175.30	0.40319
654276.78	4195175.30	0.47049	654576.78	4195175.30	0.55437
654876.78	4195175.30	0.66120	655176.78	4195175.30	0.81205
655476.78	4195175.30	0.92727	655776.78	4195175.30	0.88461
656076.78	4195175.30	0.72125	656376.78	4195175.30	0.65789
656676.78	4195175.30	0.61335	653676.78	4195475.30	0.31967
653976.78	4195475.30	0.36434	654276.78	4195475.30	0.41640
654576.78	4195475.30	0.48246	654876.78	4195475.30	0.57224
655176.78	4195475.30	0.64374	655476.78	4195475.30	0.64326
655776.78	4195475.30	0.59258	656076.78	4195475.30	0.50649
656376.78	4195475.30	0.47873	656676.78	4195475.30	0.45053

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK11 ***

INCLUDING SOURCE(S): STCK11 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	1.02009	656126.40	4192764.99	0.99092
656103.65	4192731.89	0.95646	656093.30	4192690.51	0.91540
656217.44	4192771.20	1.01546	656279.50	4192760.85	1.03604
656341.57	4192727.75	1.03442	656366.40	4192707.06	1.02349
653815.06	4193437.51	0.41776	653776.43	4193429.79	0.40676
653798.32	4193413.05	0.40931	653708.18	4193118.16	0.34763
653730.07	4193102.71	0.34871	653753.25	4193085.97	0.34973
653800.90	4193053.77	0.35219	653882.02	4192964.92	0.35133
653907.78	4192962.34	0.35501	653945.12	4192954.62	0.35997
654067.45	4192886.37	0.37129	654108.66	4192861.90	0.37527
654140.85	4192841.30	0.37823	654376.51	4192702.22	0.39478
654399.69	4192673.89	0.39211	654024.74	4193417.88	0.46498
653831.84	4193501.47	0.43480	653915.64	4193528.15	0.46128
653813.62	4193608.32	0.44903	653676.78	4192475.30	0.26983
653976.78	4192475.30	0.30273	654276.78	4192475.30	0.33528
654576.78	4192475.30	0.36946	654876.78	4192475.30	0.41777
655176.78	4192475.30	0.49407	655476.78	4192475.30	0.62170
655776.78	4192475.30	0.74424	656076.78	4192475.30	0.73373
656376.78	4192475.30	0.78658	656676.78	4192475.30	0.85441
653676.78	4192775.30	0.29760	653976.78	4192775.30	0.34168
654276.78	4192775.30	0.39247	654576.78	4192775.30	0.44688
654876.78	4192775.30	0.50443	655176.78	4192775.30	0.58720
655476.78	4192775.30	0.74194	655776.78	4192775.30	0.98003
656076.78	4192775.30	1.00723	656376.78	4192775.30	1.12401
656676.78	4192775.30	1.21632	653676.78	4193075.30	0.33629
653976.78	4193075.30	0.38507	654276.78	4193075.30	0.44643
654576.78	4193075.30	0.53046	654876.78	4193075.30	0.63427
655176.78	4193075.30	0.74174	655476.78	4193075.30	0.90611
655776.78	4193075.30	1.30159	656076.78	4193075.30	1.48983
656376.78	4193075.30	1.75248	656676.78	4193075.30	1.82371
653676.78	4193375.30	0.37984	653976.78	4193375.30	0.44478
654276.78	4193375.30	0.52455	654576.78	4193375.30	0.63067
654876.78	4193375.30	0.77329	655176.78	4193375.30	0.96495
655476.78	4193375.30	1.18018	655776.78	4193375.30	1.67498
656076.78	4193375.30	2.57319	656376.78	4193375.30	3.50271
656676.78	4193375.30	3.30738	653676.78	4193675.30	0.42392
653976.78	4193675.30	0.50746	654276.78	4193675.30	0.60782
654576.78	4193675.30	0.75932	654876.78	4193675.30	0.94019
655176.78	4193675.30	1.21851	655476.78	4193675.30	1.63655
655776.78	4193675.30	2.29123	656076.78	4193675.30	5.31238

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

*** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK11 ***
INCLUDING SOURCE(S): STCK11 ,
*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	11.70362	656676.78	4193675.30	5.72076
653676.78	4193975.30	0.45956	653976.78	4193975.30	0.55535
654276.78	4193975.30	0.68641	654576.78	4193975.30	0.86169
654876.78	4193975.30	1.13411	655176.78	4193975.30	1.57526
655476.78	4193975.30	2.37388	655776.78	4193975.30	3.93700
656076.78	4193975.30	15.97431	656376.78	4193975.30	10.50024
656676.78	4193975.30	4.84233	653676.78	4194275.30	0.44915
653976.78	4194275.30	0.53609	654276.78	4194275.30	0.65082
654576.78	4194275.30	0.81290	654876.78	4194275.30	1.05055
655176.78	4194275.30	1.42452	655476.78	4194275.30	2.05672
655776.78	4194275.30	3.29573	656076.78	4194275.30	2.29143
656376.78	4194275.30	1.75268	656676.78	4194275.30	1.71521
653676.78	4194575.30	0.41464	653976.78	4194575.30	0.49426
654276.78	4194575.30	0.59664	654576.78	4194575.30	0.72994
654876.78	4194575.30	0.91290	655176.78	4194575.30	1.17386
655476.78	4194575.30	1.57996	655776.78	4194575.30	1.64043
656076.78	4194575.30	1.13508	656376.78	4194575.30	1.03614
656676.78	4194575.30	0.93729	653676.78	4194875.30	0.38180
653976.78	4194875.30	0.44879	654276.78	4194875.30	0.52926
654576.78	4194875.30	0.63123	654876.78	4194875.30	0.76550
655176.78	4194875.30	0.95416	655476.78	4194875.30	1.04030
655776.78	4194875.30	0.92044	656076.78	4194875.30	0.73466
656376.78	4194875.30	0.69016	656676.78	4194875.30	0.64448
653676.78	4195175.30	0.35080	653976.78	4195175.30	0.40214
654276.78	4195175.30	0.46368	654576.78	4195175.30	0.54490
654876.78	4195175.30	0.65080	655176.78	4195175.30	0.71163
655476.78	4195175.30	0.68970	655776.78	4195175.30	0.59855
656076.78	4195175.30	0.52607	656376.78	4195175.30	0.50358
656676.78	4195175.30	0.47461	653676.78	4195475.30	0.31685
653976.78	4195475.30	0.35756	654276.78	4195475.30	0.41102
654576.78	4195475.30	0.47673	654876.78	4195475.30	0.52050
655176.78	4195475.30	0.51897	655476.78	4195475.30	0.49017
655776.78	4195475.30	0.42972	656076.78	4195475.30	0.39911
656376.78	4195475.30	0.38372	656676.78	4195475.30	0.36260

*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK12 ***
INCLUDING SOURCE(S): STCK12 ,
*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	1.16536	656126.40	4192764.99	1.11436
656103.65	4192731.89	1.05855	656093.30	4192690.51	1.00178
656217.44	4192771.20	1.15905	656279.50	4192760.85	1.16012
656341.57	4192727.75	1.12203	656366.40	4192707.06	1.09538
653815.06	4193437.51	0.49472	653776.43	4193429.79	0.48037
653798.32	4193413.05	0.48346	653708.18	4193118.16	0.40019
653730.07	4193102.71	0.40167	653753.25	4193085.97	0.40323
653800.90	4193053.77	0.40728	653882.02	4192964.92	0.40934
653907.78	4192962.34	0.41429	653945.12	4192954.62	0.42099
654067.45	4192886.37	0.43439	654108.66	4192861.90	0.43764
654140.85	4192841.30	0.43942	654376.51	4192702.22	0.44252
654399.69	4192673.89	0.43798	654024.74	4193417.88	0.55551
653831.84	4193501.47	0.51766	653915.64	4193528.15	0.55285
653813.62	4193608.32	0.53799	653676.78	4192475.30	0.30232
653976.78	4192475.30	0.33486	654276.78	4192475.30	0.36998
654576.78	4192475.30	0.41888	654876.78	4192475.30	0.49819
655176.78	4192475.30	0.62645	655476.78	4192475.30	0.74023
655776.78	4192475.30	0.72353	656076.78	4192475.30	0.77875
656376.78	4192475.30	0.84150	656676.78	4192475.30	0.79812
653676.78	4192775.30	0.34281	653976.78	4192775.30	0.39487
654276.78	4192775.30	0.44751	654576.78	4192775.30	0.50393
654876.78	4192775.30	0.59048	655176.78	4192775.30	0.75114
655476.78	4192775.30	0.98278	655776.78	4192775.30	0.99431
656076.78	4192775.30	1.10280	656376.78	4192775.30	1.18944
656676.78	4192775.30	1.07152	653676.78	4193075.30	0.38620
653976.78	4193075.30	0.45034	654276.78	4193075.30	0.53269
654576.78	4193075.30	0.63342	654876.78	4193075.30	0.74262
655176.78	4193075.30	0.91902	655476.78	4193075.30	1.32129
655776.78	4193075.30	1.48525	656076.78	4193075.30	1.72943
656376.78	4193075.30	1.75404	656676.78	4193075.30	1.60199
653676.78	4193375.30	0.44525	653976.78	4193375.30	0.52800
654276.78	4193375.30	0.63027	654576.78	4193375.30	0.77348
654876.78	4193375.30	0.97742	655176.78	4193375.30	1.20728
655476.78	4193375.30	1.67162	655776.78	4193375.30	2.54067
656076.78	4193375.30	3.39361	656376.78	4193375.30	3.15304
656676.78	4193375.30	2.37164	653676.78	4193675.30	0.50651
653976.78	4193675.30	0.61775	654276.78	4193675.30	0.75453
654576.78	4193675.30	0.96959	654876.78	4193675.30	1.23080
655176.78	4193675.30	1.63487	655476.78	4193675.30	2.19035
655776.78	4193675.30	5.33515	656076.78	4193675.30	10.57318

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK12 ***
INCLUDING SOURCE(S): STCK12 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	5.42783	656676.78	4193675.30	2.92615
653676.78	4193975.30	0.55928	653976.78	4193975.30	0.69293
654276.78	4193975.30	0.88410	654576.78	4193975.30	1.15332
654876.78	4193975.30	1.60238	655176.78	4193975.30	2.40291
655476.78	4193975.30	4.00132	655776.78	4193975.30	18.17515
656076.78	4193975.30	11.98523	656376.78	4193975.30	4.83589
656676.78	4193975.30	2.65656	653676.78	4194275.30	0.54345
653976.78	4194275.30	0.66423	654276.78	4194275.30	0.83158
654576.78	4194275.30	1.08119	654876.78	4194275.30	1.46556
655176.78	4194275.30	2.12691	655476.78	4194275.30	3.46570
655776.78	4194275.30	2.33134	656076.78	4194275.30	1.81691
656376.78	4194275.30	1.77311	656676.78	4194275.30	1.53126
653676.78	4194575.30	0.50075	653976.78	4194575.30	0.60649
654276.78	4194575.30	0.74525	654576.78	4194575.30	0.93619
654876.78	4194575.30	1.20865	655176.78	4194575.30	1.63342
655476.78	4194575.30	1.70959	655776.78	4194575.30	1.17261
656076.78	4194575.30	1.04609	656376.78	4194575.30	0.95580
656676.78	4194575.30	0.85579	653676.78	4194875.30	0.44970
653976.78	4194875.30	0.53784	654276.78	4194875.30	0.64321
654576.78	4194875.30	0.78305	654876.78	4194875.30	0.97935
655176.78	4194875.30	1.07023	655476.78	4194875.30	0.94398
655776.78	4194875.30	0.75533	656076.78	4194875.30	0.69994
656376.78	4194875.30	0.65316	656676.78	4194875.30	0.57637
653676.78	4195175.30	0.40811	653976.78	4195175.30	0.47075
654276.78	4195175.30	0.55402	654576.78	4195175.30	0.66362
654876.78	4195175.30	0.72855	655176.78	4195175.30	0.70513
655476.78	4195175.30	0.60998	655776.78	4195175.30	0.53552
656076.78	4195175.30	0.50874	656376.78	4195175.30	0.47554
656676.78	4195175.30	0.43281	653676.78	4195475.30	0.36199
653976.78	4195475.30	0.41678	654276.78	4195475.30	0.48448
654576.78	4195475.30	0.52947	654876.78	4195475.30	0.52889
655176.78	4195475.30	0.49920	655476.78	4195475.30	0.43525
655776.78	4195475.30	0.40426	656076.78	4195475.30	0.38803
656376.78	4195475.30	0.36252	656676.78	4195475.30	0.34094

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK13 ***
INCLUDING SOURCE(S): STCK13 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	1.18784	656126.40	4192764.99	1.17031

656376.78	4193675.30	2.97717	656676.78	4193675.30	1.87344
653676.78	4193975.30	0.68733	653976.78	4193975.30	0.87711
654276.78	4193975.30	1.16321	654576.78	4193975.30	1.59201
654876.78	4193975.30	2.37270	655176.78	4193975.30	3.88992
655476.78	4193975.30	15.53198	655776.78	4193975.30	12.00199
656076.78	4193975.30	4.93407	656376.78	4193975.30	2.67439
656676.78	4193975.30	1.71839	653676.78	4194275.30	0.65675
653976.78	4194275.30	0.82607	654276.78	4194275.30	1.07342
654576.78	4194275.30	1.45812	654876.78	4194275.30	2.09334
655176.78	4194275.30	3.38145	655476.78	4194275.30	2.40593
655776.78	4194275.30	1.80037	656076.78	4194275.30	1.76670
656376.78	4194275.30	1.51505	656676.78	4194275.30	1.19610
653676.78	4194575.30	0.60115	653976.78	4194575.30	0.73835
654276.78	4194575.30	0.92761	654576.78	4194575.30	1.19664
654876.78	4194575.30	1.61527	655176.78	4194575.30	1.71150
655476.78	4194575.30	1.19203	655776.78	4194575.30	1.05776
656076.78	4194575.30	0.95403	656376.78	4194575.30	0.85403
656676.78	4194575.30	0.76252	653676.78	4194875.30	0.52654
653976.78	4194875.30	0.63758	654276.78	4194875.30	0.77539
654576.78	4194875.30	0.97135	654876.78	4194875.30	1.06859
655176.78	4194875.30	0.95213	655476.78	4194875.30	0.76199
655776.78	4194875.30	0.70587	656076.78	4194875.30	0.65297
656376.78	4194875.30	0.58202	656676.78	4194875.30	0.52251
653676.78	4195175.30	0.46776	653976.78	4195175.30	0.54923
654276.78	4195175.30	0.65804	654576.78	4195175.30	0.72583
654876.78	4195175.30	0.70712	655176.78	4195175.30	0.61530
655476.78	4195175.30	0.53861	655776.78	4195175.30	0.50952
656076.78	4195175.30	0.48008	656376.78	4195175.30	0.42926
656676.78	4195175.30	0.38937	653676.78	4195475.30	0.41347
653976.78	4195475.30	0.48108	654276.78	4195475.30	0.52752
654576.78	4195475.30	0.52799	654876.78	4195475.30	0.50116
655176.78	4195475.30	0.43837	655476.78	4195475.30	0.40452
655776.78	4195475.30	0.38761	656076.78	4195475.30	0.36361
656376.78	4195475.30	0.33795	656676.78	4195475.30	0.30845

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK14 ***

INCLUDING SOURCE(S): STCK14 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC

656165.71	4192787.75	1.06139	656126.40	4192764.99	1.04296
656103.65	4192731.89	1.00736	656093.30	4192690.51	0.96194
656217.44	4192771.20	1.02646	656279.50	4192760.85	0.99558
656341.57	4192727.75	0.94164	656366.40	4192707.06	0.91443
653815.06	4193437.51	0.77279	653776.43	4193429.79	0.74412

653798.32	4193413.05	0.74835	653708.18	4193118.16	0.58820
653730.07	4193102.71	0.58986	653753.25	4193085.97	0.59130
653800.90	4193053.77	0.59362	653882.02	4192964.92	0.57810
653907.78	4192962.34	0.58427	653945.12	4192954.62	0.59104
654067.45	4192886.37	0.59359	654108.66	4192861.90	0.59550
654140.85	4192841.30	0.59696	654376.51	4192702.22	0.64074
654399.69	4192673.89	0.64197	654024.74	4193417.88	0.88925
653831.84	4193501.47	0.82286	653915.64	4193528.15	0.89450
653813.62	4193608.32	0.87618	653676.78	4192475.30	0.38010
653976.78	4192475.30	0.43123	654276.78	4192475.30	0.51907
654576.78	4192475.30	0.66188	654876.78	4192475.30	0.74746
655176.78	4192475.30	0.71987	655476.78	4192475.30	0.80399
655776.78	4192475.30	0.84876	656076.78	4192475.30	0.78153
656376.78	4192475.30	0.72803	656676.78	4192475.30	0.67377
653676.78	4192775.30	0.46282	653976.78	4192775.30	0.52100
654276.78	4192775.30	0.62135	654576.78	4192775.30	0.81036
654876.78	4192775.30	1.02102	655176.78	4192775.30	1.00111
655476.78	4192775.30	1.15512	655776.78	4192775.30	1.17932
656076.78	4192775.30	1.06862	656376.78	4192775.30	0.97197
656676.78	4192775.30	0.83686	653676.78	4193075.30	0.56288
653976.78	4193075.30	0.66552	654276.78	4193075.30	0.78432
654576.78	4193075.30	0.99577	654876.78	4193075.30	1.43778
655176.78	4193075.30	1.50109	655476.78	4193075.30	1.84218
655776.78	4193075.30	1.74957	656076.78	4193075.30	1.56271
656376.78	4193075.30	1.27975	656676.78	4193075.30	1.01933
653676.78	4193375.30	0.67342	653976.78	4193375.30	0.83079
654276.78	4193375.30	1.04887	654576.78	4193375.30	1.30076
654876.78	4193375.30	1.97449	655176.78	4193375.30	2.61556
655476.78	4193375.30	3.53367	655776.78	4193375.30	3.02338
656076.78	4193375.30	2.19787	656376.78	4193375.30	1.55602
656676.78	4193375.30	1.13806	653676.78	4193675.30	0.81520
653976.78	4193675.30	1.05352	654276.78	4193675.30	1.37915
654576.78	4193675.30	1.88472	654876.78	4193675.30	2.47352
655176.78	4193675.30	6.30383	655476.78	4193675.30	9.72169
655776.78	4193675.30	4.61018	656076.78	4193675.30	2.57912

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK14 ***

INCLUDING SOURCE(S): STCK14 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.66800	656676.78	4193675.30	1.18558
653676.78	4193975.30	0.95035	653976.78	4193975.30	1.28149
654276.78	4193975.30	1.82243	654576.78	4193975.30	2.76606
654876.78	4193975.30	4.71640	655176.78	4193975.30	10.70083

655476.78	4193975.30	8.82525	655776.78	4193975.30	4.01821
656076.78	4193975.30	2.31424	656376.78	4193975.30	1.52636
656676.78	4193975.30	1.09962	653676.78	4194275.30	0.88699
653976.78	4194275.30	1.17473	654276.78	4194275.30	1.61813
654576.78	4194275.30	2.38598	654876.78	4194275.30	3.68023
655176.78	4194275.30	1.94196	655476.78	4194275.30	1.73757
655776.78	4194275.30	1.65788	656076.78	4194275.30	1.40430
656376.78	4194275.30	1.09674	656676.78	4194275.30	0.87186
653676.78	4194575.30	0.78666	653976.78	4194575.30	0.99641
654276.78	4194575.30	1.30191	654576.78	4194575.30	1.72018
654876.78	4194575.30	1.58488	655176.78	4194575.30	1.11493
655476.78	4194575.30	0.99797	655776.78	4194575.30	0.90478
656076.78	4194575.30	0.82195	656376.78	4194575.30	0.72989
656676.78	4194575.30	0.63667	653676.78	4194875.30	0.66309
653976.78	4194875.30	0.82649	654276.78	4194875.30	1.02209
654576.78	4194875.30	1.05294	654876.78	4194875.30	0.88007
655176.78	4194875.30	0.73147	655476.78	4194875.30	0.67531
655776.78	4194875.30	0.62052	656076.78	4194875.30	0.56030
656376.78	4194875.30	0.50397	656676.78	4194875.30	0.45342
653676.78	4195175.30	0.57907	653976.78	4195175.30	0.68594
654276.78	4195175.30	0.72652	654576.78	4195175.30	0.68739
654876.78	4195175.30	0.57541	655176.78	4195175.30	0.52130
655476.78	4195175.30	0.48925	655776.78	4195175.30	0.46196
656076.78	4195175.30	0.41549	656376.78	4195175.30	0.37571
656676.78	4195175.30	0.34682	653676.78	4195475.30	0.49806
653976.78	4195475.30	0.53144	654276.78	4195475.30	0.52294
654576.78	4195475.30	0.48284	654876.78	4195475.30	0.41666
655176.78	4195475.30	0.39217	655476.78	4195475.30	0.37432
655776.78	4195475.30	0.35468	656076.78	4195475.30	0.32745
656376.78	4195475.30	0.29411	656676.78	4195475.30	0.27764

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK15 ***

INCLUDING SOURCE(S): STCK15 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.63818	656126.40	4192764.99	0.63725
656103.65	4192731.89	0.62709	656093.30	4192690.51	0.61026
656217.44	4192771.20	0.61882	656279.50	4192760.85	0.60008
656341.57	4192727.75	0.57377	656366.40	4192707.06	0.56120
653815.06	4193437.51	1.10606	653776.43	4193429.79	1.05558
653798.32	4193413.05	1.06058	653708.18	4193118.16	0.75852
653730.07	4193102.71	0.76334	653753.25	4193085.97	0.76864
653800.90	4193053.77	0.78118	653882.02	4192964.92	0.78443
653907.78	4192962.34	0.80121	653945.12	4192954.62	0.82247

654067.45	4192886.37	0.84322	654108.66	4192861.90	0.83901
654140.85	4192841.30	0.83092	654376.51	4192702.22	0.72103
654399.69	4192673.89	0.69678	654024.74	4193417.88	1.37622
653831.84	4193501.47	1.20810	653915.64	4193528.15	1.35980
653813.62	4193608.32	1.34760	653676.78	4192475.30	0.48625
653976.78	4192475.30	0.57015	654276.78	4192475.30	0.58913
654576.78	4192475.30	0.56535	654876.78	4192475.30	0.61548
655176.78	4192475.30	0.63617	655476.78	4192475.30	0.61031
655776.78	4192475.30	0.54798	656076.78	4192475.30	0.52007
656376.78	4192475.30	0.48681	656676.78	4192475.30	0.44182
653676.78	4192775.30	0.58151	653976.78	4192775.30	0.72547
654276.78	4192775.30	0.78877	654576.78	4192775.30	0.76190
654876.78	4192775.30	0.83375	655176.78	4192775.30	0.85020
655476.78	4192775.30	0.76499	655776.78	4192775.30	0.70621
656076.78	4192775.30	0.65310	656376.78	4192775.30	0.58189
656676.78	4192775.30	0.51230	653676.78	4193075.30	0.71552
653976.78	4193075.30	0.93830	654276.78	4193075.30	1.11448
654576.78	4193075.30	1.09014	654876.78	4193075.30	1.20478
655176.78	4193075.30	1.16385	655476.78	4193075.30	1.03173
655776.78	4193075.30	0.93648	656076.78	4193075.30	0.80972
656376.78	4193075.30	0.69020	656676.78	4193075.30	0.58660
653676.78	4193375.30	0.92152	653976.78	4193375.30	1.24226
654276.78	4193375.30	1.69773	654576.78	4193375.30	1.72330
654876.78	4193375.30	1.92392	655176.78	4193375.30	1.69965
655476.78	4193375.30	1.49018	655776.78	4193375.30	1.22245
656076.78	4193375.30	0.98318	656376.78	4193375.30	0.79112
656676.78	4193375.30	0.64372	653676.78	4193675.30	1.29935
653976.78	4193675.30	1.75657	654276.78	4193675.30	2.80511
654576.78	4193675.30	3.25063	654876.78	4193675.30	3.46502
655176.78	4193675.30	2.84797	655476.78	4193675.30	2.10167
655776.78	4193675.30	1.51198	656076.78	4193675.30	1.11640

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK15 ***

INCLUDING SOURCE(S): STCK15 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	0.85426	656676.78	4193675.30	0.67740
653676.78	4193975.30	1.84450	653976.78	4193975.30	2.90564
654276.78	4193975.30	5.08225	654576.78	4193975.30	9.09249
654876.78	4193975.30	8.34918	655176.78	4193975.30	4.48721
655476.78	4193975.30	2.57911	655776.78	4193975.30	1.67443
656076.78	4193975.30	1.18519	656376.78	4193975.30	0.88952
656676.78	4193975.30	0.69608	653676.78	4194275.30	2.56369
653976.78	4194275.30	4.84475	654276.78	4194275.30	12.73445

654576.78	4194275.30	172.71796	654876.78	4194275.30	12.92085
655176.78	4194275.30	4.77806	655476.78	4194275.30	2.56452
655776.78	4194275.30	1.63072	656076.78	4194275.30	1.14456
656376.78	4194275.30	0.85427	656676.78	4194275.30	0.66751
653676.78	4194575.30	2.32924	653976.78	4194575.30	3.98239
654276.78	4194575.30	7.76794	654576.78	4194575.30	5.37376
654876.78	4194575.30	3.87592	655176.78	4194575.30	2.73965
655476.78	4194575.30	1.85127	655776.78	4194575.30	1.32081
656076.78	4194575.30	0.98875	656376.78	4194575.30	0.76661
656676.78	4194575.30	0.61411	653676.78	4194875.30	1.71991
653976.78	4194875.30	2.53237	654276.78	4194875.30	2.58025
654576.78	4194875.30	2.05267	654876.78	4194875.30	1.71426
655176.78	4194875.30	1.36425	655476.78	4194875.30	1.11175
655776.78	4194875.30	0.92032	656076.78	4194875.30	0.74595
656376.78	4194875.30	0.60827	656676.78	4194875.30	0.50639
653676.78	4195175.30	1.30270	653976.78	4195175.30	1.41924
654276.78	4195175.30	1.25226	654576.78	4195175.30	1.10928
654876.78	4195175.30	0.99735	655176.78	4195175.30	0.84697
655476.78	4195175.30	0.72409	655776.78	4195175.30	0.62046
656076.78	4195175.30	0.54612	656376.78	4195175.30	0.47810
656676.78	4195175.30	0.41403	653676.78	4195475.30	0.88940
653976.78	4195475.30	0.86760	654276.78	4195475.30	0.75974
654576.78	4195475.30	0.70839	654876.78	4195475.30	0.65327
655176.78	4195475.30	0.59033	655476.78	4195475.30	0.51464
655776.78	4195475.30	0.45935	656076.78	4195475.30	0.40283
656376.78	4195475.30	0.36122	656676.78	4195475.30	0.33175

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK16 ***

INCLUDING SOURCE(S): STCK16 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.71380	656126.40	4192764.99	0.71317
656103.65	4192731.89	0.70141	656093.30	4192690.51	0.68160
656217.44	4192771.20	0.69032	656279.50	4192760.85	0.66763
656341.57	4192727.75	0.63623	656366.40	4192707.06	0.62137
653815.06	4193437.51	1.15514	653776.43	4193429.79	1.10631
653798.32	4193413.05	1.10559	653708.18	4193118.16	0.77287
653730.07	4193102.71	0.77557	653753.25	4193085.97	0.77876
653800.90	4193053.77	0.78695	653882.02	4192964.92	0.78601
653907.78	4192962.34	0.80350	653945.12	4192954.62	0.82741
654067.45	4192886.37	0.87633	654108.66	4192861.90	0.88601
654140.85	4192841.30	0.88864	654376.51	4192702.22	0.81876
654399.69	4192673.89	0.79271	654024.74	4193417.88	1.38970
653831.84	4193501.47	1.27380	653915.64	4193528.15	1.42153

653813.62	4193608.32	1.44582	653676.78	4192475.30	0.48649
653976.78	4192475.30	0.59460	654276.78	4192475.30	0.65187
654576.78	4192475.30	0.62585	654876.78	4192475.30	0.66674
655176.78	4192475.30	0.70112	655476.78	4192475.30	0.68260
655776.78	4192475.30	0.60957	656076.78	4192475.30	0.57548
656376.78	4192475.30	0.53508	656676.78	4192475.30	0.48188
653676.78	4192775.30	0.58441	653976.78	4192775.30	0.74157
654276.78	4192775.30	0.87957	654576.78	4192775.30	0.85957
654876.78	4192775.30	0.92512	655176.78	4192775.30	0.96299
655476.78	4192775.30	0.87367	655776.78	4192775.30	0.79933
656076.78	4192775.30	0.73257	656376.78	4192775.30	0.64535
656676.78	4192775.30	0.56199	653676.78	4193075.30	0.72866
653976.78	4193075.30	0.94455	654276.78	4193075.30	1.24477
654576.78	4193075.30	1.26395	654876.78	4193075.30	1.38330
655176.78	4193075.30	1.37708	655476.78	4193075.30	1.20866
655776.78	4193075.30	1.08273	656076.78	4193075.30	0.91976
656376.78	4193075.30	0.76989	656676.78	4193075.30	0.64333
653676.78	4193375.30	0.96819	653976.78	4193375.30	1.25689
654276.78	4193375.30	1.84798	654576.78	4193375.30	2.08430
654876.78	4193375.30	2.34587	655176.78	4193375.30	2.11411
655476.78	4193375.30	1.81290	655776.78	4193375.30	1.43827
656076.78	4193375.30	1.11971	656376.78	4193375.30	0.87775
656676.78	4193375.30	0.70040	653676.78	4193675.30	1.34713
653976.78	4193675.30	1.88244	654276.78	4193675.30	2.85686
654576.78	4193675.30	4.24031	654876.78	4193675.30	4.83983
655176.78	4193675.30	3.83377	655476.78	4193675.30	2.61235
655776.78	4193675.30	1.76638	656076.78	4193675.30	1.25624

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK16 ***
INCLUDING SOURCE(S): STCK16 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	0.94023	656676.78	4193675.30	0.73513
653676.78	4193975.30	1.85608	653976.78	4193975.30	2.98759
654276.78	4193975.30	5.53222	654576.78	4193975.30	13.71973
654876.78	4193975.30	15.16352	655176.78	4193975.30	6.07308
655476.78	4193975.30	3.10991	655776.78	4193975.30	1.91062
656076.78	4193975.30	1.30821	656376.78	4193975.30	0.96003
656676.78	4193975.30	0.73985	653676.78	4194275.30	2.26290
653976.78	4194275.30	4.01174	654276.78	4194275.30	9.33740
654576.78	4194275.30	25.33813	654876.78	4194275.30	12.40315
655176.78	4194275.30	5.19486	655476.78	4194275.30	2.77850
655776.78	4194275.30	1.74820	656076.78	4194275.30	1.21587
656376.78	4194275.30	0.90064	656676.78	4194275.30	0.69953

653676.78	4194575.30	1.88194	653976.78	4194575.30	2.91252
654276.78	4194575.30	4.84124	654576.78	4194575.30	3.78378
654876.78	4194575.30	2.96865	655176.78	4194575.30	2.22532
655476.78	4194575.30	1.69175	655776.78	4194575.30	1.25986
656076.78	4194575.30	0.96234	656376.78	4194575.30	0.75612
656676.78	4194575.30	0.61224	653676.78	4194875.30	1.40944
653976.78	4194875.30	1.95826	654276.78	4194875.30	2.03184
654576.78	4194875.30	1.64538	654876.78	4194875.30	1.45147
655176.78	4194875.30	1.19097	655476.78	4194875.30	0.98137
655776.78	4194875.30	0.83040	656076.78	4194875.30	0.70758
656376.78	4194875.30	0.58882	656676.78	4194875.30	0.49187
653676.78	4195175.30	1.09349	653976.78	4195175.30	1.18022
654276.78	4195175.30	1.08271	654576.78	4195175.30	0.94704
654876.78	4195175.30	0.86847	655176.78	4195175.30	0.77115
655476.78	4195175.30	0.65855	655776.78	4195175.30	0.57539
656076.78	4195175.30	0.50049	656376.78	4195175.30	0.44606
656676.78	4195175.30	0.39901	653676.78	4195475.30	0.77156
653976.78	4195475.30	0.75995	654276.78	4195475.30	0.68041
654576.78	4195475.30	0.62692	654876.78	4195475.30	0.58582
655176.78	4195475.30	0.54218	655476.78	4195475.30	0.48265
655776.78	4195475.30	0.42605	656076.78	4195475.30	0.38294
656376.78	4195475.30	0.33869	656676.78	4195475.30	0.30984

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK17 ***

INCLUDING SOURCE(S): STCK17 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.63114	656126.40	4192764.99	0.62313
656103.65	4192731.89	0.60836	656093.30	4192690.51	0.58912
656217.44	4192771.20	0.61649	656279.50	4192760.85	0.60410
656341.57	4192727.75	0.58089	656366.40	4192707.06	0.56859
653815.06	4193437.51	0.76667	653776.43	4193429.79	0.74111
653798.32	4193413.05	0.74086	653708.18	4193118.16	0.55572
653730.07	4193102.71	0.55698	653753.25	4193085.97	0.55844
653800.90	4193053.77	0.56317	653882.02	4192964.92	0.55996
653907.78	4192962.34	0.56954	653945.12	4192954.62	0.58250
654067.45	4192886.37	0.61257	654108.66	4192861.90	0.62231
654140.85	4192841.30	0.62869	654376.51	4192702.22	0.63772
654399.69	4192673.89	0.62572	654024.74	4193417.88	0.88024
653831.84	4193501.47	0.82675	653915.64	4193528.15	0.90044
653813.62	4193608.32	0.91337	653676.78	4192475.30	0.37450
653976.78	4192475.30	0.44930	654276.78	4192475.30	0.51762
654576.78	4192475.30	0.53191	654876.78	4192475.30	0.50834
655176.78	4192475.30	0.55041	655476.78	4192475.30	0.57070

655776.78	4192475.30	0.56229	656076.78	4192475.30	0.50597
656376.78	4192475.30	0.47476	656676.78	4192475.30	0.45240
653676.78	4192775.30	0.43945	653976.78	4192775.30	0.53297
654276.78	4192775.30	0.65236	654576.78	4192775.30	0.69784
654876.78	4192775.30	0.67037	655176.78	4192775.30	0.73066
655476.78	4192775.30	0.75311	655776.78	4192775.30	0.69895
656076.78	4192775.30	0.63457	656376.78	4192775.30	0.59816
656676.78	4192775.30	0.54341	653676.78	4193075.30	0.52949
653976.78	4193075.30	0.64755	654276.78	4193075.30	0.83407
654576.78	4193075.30	0.95985	654876.78	4193075.30	0.92973
655176.78	4193075.30	1.02445	655476.78	4193075.30	1.02674
655776.78	4193075.30	0.90663	656076.78	4193075.30	0.83852
656376.78	4193075.30	0.74749	656676.78	4193075.30	0.64954
653676.78	4193375.30	0.66657	653976.78	4193375.30	0.81596
654276.78	4193375.30	1.08442	654576.78	4193375.30	1.40988
654876.78	4193375.30	1.40011	655176.78	4193375.30	1.56666
655476.78	4193375.30	1.44352	655776.78	4193375.30	1.28778
656076.78	4193375.30	1.10947	656376.78	4193375.30	0.92151
656676.78	4193375.30	0.76002	653676.78	4193675.30	0.88077
653976.78	4193675.30	1.10904	654276.78	4193675.30	1.46690
654576.78	4193675.30	2.24219	654876.78	4193675.30	2.39455
655176.78	4193675.30	2.68612	655476.78	4193675.30	2.30350
655776.78	4193675.30	1.86522	656076.78	4193675.30	1.42252

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK17 ***

INCLUDING SOURCE(S): STCK17 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.08432	656676.78	4193675.30	0.84329
653676.78	4193975.30	1.13066	653976.78	4193975.30	1.58116
654276.78	4193975.30	2.29924	654576.78	4193975.30	3.77507
654876.78	4193975.30	5.40186	655176.78	4193975.30	5.67176
655476.78	4193975.30	3.95320	655776.78	4193975.30	2.48075
656076.78	4193975.30	1.65227	656376.78	4193975.30	1.17950
656676.78	4193975.30	0.89105	653676.78	4194275.30	1.47015
653976.78	4194275.30	2.24246	654276.78	4194275.30	3.86830
654576.78	4194275.30	8.07980	654876.78	4194275.30	30.68130
655176.78	4194275.30	13.74354	655476.78	4194275.30	5.13599
655776.78	4194275.30	2.72065	656076.78	4194275.30	1.71504
656376.78	4194275.30	1.19361	656676.78	4194275.30	0.88723
653676.78	4194575.30	1.59788	653976.78	4194575.30	2.47993
654276.78	4194575.30	4.49546	654576.78	4194575.30	10.82402
654876.78	4194575.30	9.89863	655176.78	4194575.30	6.92914
655476.78	4194575.30	3.77314	655776.78	4194575.30	2.27202

656076.78	4194575.30	1.51776	656376.78	4194575.30	1.08811
656676.78	4194575.30	0.82410	653676.78	4194875.30	1.34700
653976.78	4194875.30	1.94862	654276.78	4194875.30	3.00880
654576.78	4194875.30	3.89442	654876.78	4194875.30	2.88365
655176.78	4194875.30	2.29322	655476.78	4194875.30	1.76373
655776.78	4194875.30	1.40070	656076.78	4194875.30	1.08333
656376.78	4194875.30	0.84350	656676.78	4194875.30	0.67609
653676.78	4195175.30	1.08595	653976.78	4195175.30	1.45626
654276.78	4195175.30	1.79706	654576.78	4195175.30	1.64662
654876.78	4195175.30	1.39426	655176.78	4195175.30	1.22976
655476.78	4195175.30	1.01710	655776.78	4195175.30	0.85376
656076.78	4195175.30	0.72629	656376.78	4195175.30	0.62554
656676.78	4195175.30	0.53196	653676.78	4195475.30	0.88188
653976.78	4195475.30	1.04394	654276.78	4195475.30	1.05101
654576.78	4195475.30	0.92178	654876.78	4195475.30	0.84015
655176.78	4195475.30	0.76928	655476.78	4195475.30	0.68411
655776.78	4195475.30	0.58756	656076.78	4195475.30	0.51490
656376.78	4195475.30	0.44916	656676.78	4195475.30	0.40691

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK18 ***

INCLUDING SOURCE(S): STCK18 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.74430	656126.40	4192764.99	0.73430
656103.65	4192731.89	0.71478	656093.30	4192690.51	0.68917
656217.44	4192771.20	0.72453	656279.50	4192760.85	0.70731
656341.57	4192727.75	0.67655	656366.40	4192707.06	0.66066
653815.06	4193437.51	0.85708	653776.43	4193429.79	0.82691
653798.32	4193413.05	0.82635	653708.18	4193118.16	0.59917
653730.07	4193102.71	0.59891	653753.25	4193085.97	0.59853
653800.90	4193053.77	0.59909	653882.02	4192964.92	0.58880
653907.78	4192962.34	0.59811	653945.12	4192954.62	0.61052
654067.45	4192886.37	0.63809	654108.66	4192861.90	0.64840
654140.85	4192841.30	0.65621	654376.51	4192702.22	0.70700
654399.69	4192673.89	0.69887	654024.74	4193417.88	0.96927
653831.84	4193501.47	0.92694	653915.64	4193528.15	1.01507
653813.62	4193608.32	1.00735	653676.78	4192475.30	0.38862
653976.78	4192475.30	0.46330	654276.78	4192475.30	0.56299
654576.78	4192475.30	0.61291	654876.78	4192475.30	0.58771
655176.78	4192475.30	0.62225	655476.78	4192475.30	0.65610
655776.78	4192475.30	0.64895	656076.78	4192475.30	0.58061
656376.78	4192475.30	0.54490	656676.78	4192475.30	0.51283
653676.78	4192775.30	0.46099	653976.78	4192775.30	0.55313
654276.78	4192775.30	0.69980	654576.78	4192775.30	0.81715

654876.78	4192775.30	0.79545	655176.78	4192775.30	0.85112
655476.78	4192775.30	0.89219	655776.78	4192775.30	0.82716
656076.78	4192775.30	0.74917	656376.78	4192775.30	0.69616
656676.78	4192775.30	0.61987	653676.78	4193075.30	0.56923
653976.78	4193075.30	0.68471	654276.78	4193075.30	0.88301
654576.78	4193075.30	1.13948	654876.78	4193075.30	1.14524
655176.78	4193075.30	1.24664	655476.78	4193075.30	1.27032
655776.78	4193075.30	1.11500	656076.78	4193075.30	1.01531
656376.78	4193075.30	0.87936	656676.78	4193075.30	0.74520
653676.78	4193375.30	0.73868	653976.78	4193375.30	0.89526
654276.78	4193375.30	1.15715	654576.78	4193375.30	1.66421
654876.78	4193375.30	1.82731	655176.78	4193375.30	2.04630
655476.78	4193375.30	1.90228	655776.78	4193375.30	1.65971
656076.78	4193375.30	1.36317	656376.78	4193375.30	1.08521
656676.78	4193375.30	0.86344	653676.78	4193675.30	0.93218
653976.78	4193675.30	1.25352	654276.78	4193675.30	1.66036
654576.78	4193675.30	2.54202	654876.78	4193675.30	3.47196
655176.78	4193675.30	4.02274	655476.78	4193675.30	3.36075
655776.78	4193675.30	2.46090	656076.78	4193675.30	1.72548

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK18 ***

INCLUDING SOURCE(S): STCK18 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.24481	656676.78	4193675.30	0.93732
653676.78	4193975.30	1.19775	653976.78	4193975.30	1.71190
654276.78	4193975.30	2.65361	654576.78	4193975.30	4.44977
654876.78	4193975.30	9.74715	655176.78	4193975.30	11.54725
655476.78	4193975.30	5.85762	655776.78	4193975.30	3.10170
656076.78	4193975.30	1.92308	656376.78	4193975.30	1.32253
656676.78	4193975.30	0.97379	653676.78	4194275.30	1.45206
653976.78	4194275.30	2.23225	654276.78	4194275.30	3.95581
654576.78	4194275.30	9.34575	654876.78	4194275.30	44.77123
655176.78	4194275.30	19.24156	655476.78	4194275.30	5.97777
655776.78	4194275.30	2.99052	656076.78	4194275.30	1.83611
656376.78	4194275.30	1.25723	656676.78	4194275.30	0.92569
653676.78	4194575.30	1.33294	653976.78	4194575.30	1.96188
654276.78	4194575.30	3.15120	654576.78	4194575.30	5.75562
654876.78	4194575.30	5.01761	655176.78	4194575.30	3.72173
655476.78	4194575.30	2.70680	655776.78	4194575.30	1.94447
656076.78	4194575.30	1.39119	656376.78	4194575.30	1.03493
656676.78	4194575.30	0.80342	653676.78	4194875.30	1.10882
653976.78	4194875.30	1.50326	654276.78	4194875.30	2.14981
654576.78	4194875.30	2.43861	654876.78	4194875.30	1.93242

655176.78	4194875.30	1.67340	655476.78	4194875.30	1.34535
655776.78	4194875.30	1.09853	656076.78	4194875.30	0.92367
656376.78	4194875.30	0.76252	656676.78	4194875.30	0.62263
653676.78	4195175.30	0.90035	653976.78	4195175.30	1.16276
654276.78	4195175.30	1.32629	654576.78	4195175.30	1.23755
654876.78	4195175.30	1.05729	655176.78	4195175.30	0.96374
655476.78	4195175.30	0.84558	655776.78	4195175.30	0.71940
656076.78	4195175.30	0.61805	656376.78	4195175.30	0.53512
656676.78	4195175.30	0.47911	653676.78	4195475.30	0.74519
653976.78	4195475.30	0.83876	654276.78	4195475.30	0.83658
654576.78	4195475.30	0.75228	654876.78	4195475.30	0.68036
655176.78	4195475.30	0.63494	655476.78	4195475.30	0.58575
655776.78	4195475.30	0.51408	656076.78	4195475.30	0.45336
656376.78	4195475.30	0.40239	656676.78	4195475.30	0.35872

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK19 ***

INCLUDING SOURCE(S): STCK19 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.66431	656126.40	4192764.99	0.66387
656103.65	4192731.89	0.65429	656093.30	4192690.51	0.63774
656217.44	4192771.20	0.64335	656279.50	4192760.85	0.62531
656341.57	4192727.75	0.59834	656366.40	4192707.06	0.58466
653815.06	4193437.51	0.62490	653776.43	4193429.79	0.60702
653798.32	4193413.05	0.60612	653708.18	4193118.16	0.46265
653730.07	4193102.71	0.46250	653753.25	4193085.97	0.46234
653800.90	4193053.77	0.46325	653882.02	4192964.92	0.45628
653907.78	4192962.34	0.46192	653945.12	4192954.62	0.46935
654067.45	4192886.37	0.48428	654108.66	4192861.90	0.48975
654140.85	4192841.30	0.49394	654376.51	4192702.22	0.53561
654399.69	4192673.89	0.53411	654024.74	4193417.88	0.68969
653831.84	4193501.47	0.66793	653915.64	4193528.15	0.71910
653813.62	4193608.32	0.71986	653676.78	4192475.30	0.31658
653976.78	4192475.30	0.36750	654276.78	4192475.30	0.44045
654576.78	4192475.30	0.50513	654876.78	4192475.30	0.51847
655176.78	4192475.30	0.49622	655476.78	4192475.30	0.53472
655776.78	4192475.30	0.55493	656076.78	4192475.30	0.54969
656376.78	4192475.30	0.49581	656676.78	4192475.30	0.46244
653676.78	4192775.30	0.36883	653976.78	4192775.30	0.43030
654276.78	4192775.30	0.52190	654576.78	4192775.30	0.63423
654876.78	4192775.30	0.67606	655176.78	4192775.30	0.64904
655476.78	4192775.30	0.70600	655776.78	4192775.30	0.72906
656076.78	4192775.30	0.68290	656376.78	4192775.30	0.61672
656676.78	4192775.30	0.58309	653676.78	4193075.30	0.44284

653976.78	4193075.30	0.51649	654276.78	4193075.30	0.63047
654576.78	4193075.30	0.80861	654876.78	4193075.30	0.92376
655176.78	4193075.30	0.89461	655476.78	4193075.30	0.98339
655776.78	4193075.30	0.99212	656076.78	4193075.30	0.87702
656376.78	4193075.30	0.81284	656676.78	4193075.30	0.73111
653676.78	4193375.30	0.55288	653976.78	4193375.30	0.64668
654276.78	4193375.30	0.78891	654576.78	4193375.30	1.04828
654876.78	4193375.30	1.34447	655176.78	4193375.30	1.33268
655476.78	4193375.30	1.48148	655776.78	4193375.30	1.38906
656076.78	4193375.30	1.23767	656376.78	4193375.30	1.07927
656676.78	4193375.30	0.90299	653676.78	4193675.30	0.67949
653976.78	4193675.30	0.85615	654276.78	4193675.30	1.05479
654576.78	4193675.30	1.41526	654876.78	4193675.30	2.08730
655176.78	4193675.30	2.22515	655476.78	4193675.30	2.51745
655776.78	4193675.30	2.17856	656076.78	4193675.30	1.79874

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK19 ***

INCLUDING SOURCE(S): STCK19 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.39244	656676.78	4193675.30	1.07334
653676.78	4193975.30	0.83401	653976.78	4193975.30	1.09497
654276.78	4193975.30	1.51996	654576.78	4193975.30	2.12726
654876.78	4193975.30	3.51370	655176.78	4193975.30	4.82163
655476.78	4193975.30	5.15058	655776.78	4193975.30	3.76489
656076.78	4193975.30	2.43884	656376.78	4193975.30	1.64196
656676.78	4193975.30	1.17768	653676.78	4194275.30	1.02507
653976.78	4194275.30	1.42929	654276.78	4194275.30	2.14450
654576.78	4194275.30	3.61375	654876.78	4194275.30	7.11750
655176.78	4194275.30	21.92661	655476.78	4194275.30	13.24466
655776.78	4194275.30	5.14691	656076.78	4194275.30	2.74486
656376.78	4194275.30	1.73074	656676.78	4194275.30	1.20576
653676.78	4194575.30	1.13102	653976.78	4194575.30	1.61018
654276.78	4194575.30	2.51369	654576.78	4194575.30	4.59042
654876.78	4194575.30	11.45792	655176.78	4194575.30	11.97243
655476.78	4194575.30	8.31923	655776.78	4194575.30	4.10856
656076.78	4194575.30	2.38223	656376.78	4194575.30	1.55921
656676.78	4194575.30	1.11012	653676.78	4194875.30	0.99966
653976.78	4194875.30	1.38661	654276.78	4194875.30	2.00717
654576.78	4194875.30	3.13056	654876.78	4194875.30	4.39569
655176.78	4194875.30	3.20312	655476.78	4194875.30	2.50768
655776.78	4194875.30	1.91695	656076.78	4194875.30	1.49229
656376.78	4194875.30	1.12775	656676.78	4194875.30	0.87076
653676.78	4195175.30	0.86631	653976.78	4195175.30	1.11117

654276.78	4195175.30	1.49553	654576.78	4195175.30	1.91704
654876.78	4195175.30	1.78609	655176.78	4195175.30	1.49229
655476.78	4195175.30	1.30780	655776.78	4195175.30	1.07628
656076.78	4195175.30	0.89478	656376.78	4195175.30	0.75513
656676.78	4195175.30	0.65010	653676.78	4195475.30	0.71668
653976.78	4195475.30	0.89985	654276.78	4195475.30	1.08845
654576.78	4195475.30	1.11006	654876.78	4195475.30	0.97607
655176.78	4195475.30	0.88354	655476.78	4195475.30	0.80907
655776.78	4195475.30	0.71276	656076.78	4195475.30	0.60899
656376.78	4195475.30	0.52956	656676.78	4195475.30	0.46584

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK2 ***

INCLUDING SOURCE(S): STCK2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.61678	656126.40	4192764.99	0.61457
656103.65	4192731.89	0.60375	656093.30	4192690.51	0.58662
656217.44	4192771.20	0.59909	656279.50	4192760.85	0.58236
656341.57	4192727.75	0.55758	656366.40	4192707.06	0.54555
653815.06	4193437.51	0.50943	653776.43	4193429.79	0.49376
653798.32	4193413.05	0.49882	653708.18	4193118.16	0.43731
653730.07	4193102.71	0.44139	653753.25	4193085.97	0.44634
653800.90	4193053.77	0.45703	653882.02	4192964.92	0.47780
653907.78	4192962.34	0.48985	653945.12	4192954.62	0.50756
654067.45	4192886.37	0.55650	654108.66	4192861.90	0.56663
654140.85	4192841.30	0.57033	654376.51	4192702.22	0.52362
654399.69	4192673.89	0.50981	654024.74	4193417.88	0.60502
653831.84	4193501.47	0.53208	653915.64	4193528.15	0.56003
653813.62	4193608.32	0.55303	653676.78	4192475.30	0.35255
653976.78	4192475.30	0.42753	654276.78	4192475.30	0.44919
654576.78	4192475.30	0.42907	654876.78	4192475.30	0.48249
655176.78	4192475.30	0.53774	655476.78	4192475.30	0.54901
655776.78	4192475.30	0.51317	656076.78	4192475.30	0.49914
656376.78	4192475.30	0.47336	656676.78	4192475.30	0.43326
653676.78	4192775.30	0.38597	653976.78	4192775.30	0.49011
654276.78	4192775.30	0.56113	654576.78	4192775.30	0.53781
654876.78	4192775.30	0.62617	655176.78	4192775.30	0.70548
655476.78	4192775.30	0.68794	655776.78	4192775.30	0.66295
656076.78	4192775.30	0.62791	656376.78	4192775.30	0.56614
656676.78	4192775.30	0.50228	653676.78	4193075.30	0.42317
653976.78	4193075.30	0.54541	654276.78	4193075.30	0.70849
654576.78	4193075.30	0.69028	654876.78	4193075.30	0.85693
655176.78	4193075.30	0.96272	655476.78	4193075.30	0.93044
655776.78	4193075.30	0.87888	656076.78	4193075.30	0.77727

656376.78	4193075.30	0.67345	656676.78	4193075.30	0.57551
653676.78	4193375.30	0.46854	653976.78	4193375.30	0.57321
654276.78	4193375.30	0.87363	654576.78	4193375.30	0.92737
654876.78	4193375.30	1.31402	655176.78	4193375.30	1.43814
655476.78	4193375.30	1.35289	655776.78	4193375.30	1.14058
656076.78	4193375.30	0.93486	656376.78	4193375.30	0.75915
656676.78	4193375.30	0.61998	653676.78	4193675.30	0.54424
653976.78	4193675.30	0.60401	654276.78	4193675.30	0.86399
654576.78	4193675.30	1.34410	654876.78	4193675.30	2.51460
655176.78	4193675.30	2.49385	655476.78	4193675.30	1.88532
655776.78	4193675.30	1.37316	656076.78	4193675.30	1.02887

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*** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK2 ***

INCLUDING SOURCE(S): STCK2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	0.79849	656676.78	4193675.30	0.64586
653676.78	4193975.30	0.65153	653976.78	4193975.30	0.70818
654276.78	4193975.30	0.73516	654576.78	4193975.30	1.98419
654876.78	4193975.30	7.57031	655176.78	4193975.30	3.68251
655476.78	4193975.30	2.16115	655776.78	4193975.30	1.44884
656076.78	4193975.30	1.05277	656376.78	4193975.30	0.80574
656676.78	4193975.30	0.64405	653676.78	4194275.30	0.90027
653976.78	4194275.30	1.08934	654276.78	4194275.30	1.34096
654576.78	4194275.30	2.94977	654876.78	4194275.30	3.47451
655176.78	4194275.30	2.60638	655476.78	4194275.30	1.74746
655776.78	4194275.30	1.24533	656076.78	4194275.30	0.93973
656376.78	4194275.30	0.73343	656676.78	4194275.30	0.59371
653676.78	4194575.30	0.88149	653976.78	4194575.30	1.20217
654276.78	4194575.30	1.69407	654576.78	4194575.30	0.71180
654876.78	4194575.30	0.59606	655176.78	4194575.30	0.79097
655476.78	4194575.30	0.86787	655776.78	4194575.30	0.80687
656076.78	4194575.30	0.70079	656376.78	4194575.30	0.59100
656676.78	4194575.30	0.50343	653676.78	4194875.30	0.80904
653976.78	4194875.30	1.02406	654276.78	4194875.30	0.83392
654576.78	4194875.30	0.46675	654876.78	4194875.30	0.43525
655176.78	4194875.30	0.46525	655476.78	4194875.30	0.49483
655776.78	4194875.30	0.50439	656076.78	4194875.30	0.48890
656376.78	4194875.30	0.44188	656676.78	4194875.30	0.39115
653676.78	4195175.30	0.70802	653976.78	4195175.30	0.67832
654276.78	4195175.30	0.50509	654576.78	4195175.30	0.37846
654876.78	4195175.30	0.35827	655176.78	4195175.30	0.36059
655476.78	4195175.30	0.35660	655776.78	4195175.30	0.35706
656076.78	4195175.30	0.34447	656376.78	4195175.30	0.32784

656676.78	4195175.30	0.31149	653676.78	4195475.30	0.52708
653976.78	4195475.30	0.47134	654276.78	4195475.30	0.36605
654576.78	4195475.30	0.31473	654876.78	4195475.30	0.30044
655176.78	4195475.30	0.29451	655476.78	4195475.30	0.28798
655776.78	4195475.30	0.27499	656076.78	4195475.30	0.26687
656376.78	4195475.30	0.25143	656676.78	4195475.30	0.24283

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK20 ***

INCLUDING SOURCE(S): STCK20 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.80059	656126.40	4192764.99	0.79935
656103.65	4192731.89	0.78549	656093.30	4192690.51	0.76227
656217.44	4192771.20	0.77253	656279.50	4192760.85	0.74843
656341.57	4192727.75	0.71273	656366.40	4192707.06	0.69466
653815.06	4193437.51	0.66207	653776.43	4193429.79	0.63991
653798.32	4193413.05	0.64342	653708.18	4193118.16	0.49797
653730.07	4193102.71	0.49742	653753.25	4193085.97	0.49630
653800.90	4193053.77	0.49459	653882.02	4192964.92	0.48085
653907.78	4192962.34	0.48606	653945.12	4192954.62	0.49261
654067.45	4192886.37	0.50213	654108.66	4192861.90	0.50595
654140.85	4192841.30	0.50892	654376.51	4192702.22	0.54558
654399.69	4192673.89	0.54542	654024.74	4193417.88	0.75384
653831.84	4193501.47	0.70014	653915.64	4193528.15	0.76089
653813.62	4193608.32	0.73752	653676.78	4192475.30	0.32665
653976.78	4192475.30	0.37621	654276.78	4192475.30	0.44698
654576.78	4192475.30	0.54280	654876.78	4192475.30	0.59927
655176.78	4192475.30	0.58201	655476.78	4192475.30	0.60106
655776.78	4192475.30	0.63974	656076.78	4192475.30	0.64150
656376.78	4192475.30	0.57887	656676.78	4192475.30	0.53621
653676.78	4192775.30	0.38670	653976.78	4192775.30	0.44527
654276.78	4192775.30	0.53238	654576.78	4192775.30	0.66722
654876.78	4192775.30	0.79030	655176.78	4192775.30	0.78245
655476.78	4192775.30	0.81713	655776.78	4192775.30	0.86646
656076.78	4192775.30	0.82384	656376.78	4192775.30	0.73723
656676.78	4192775.30	0.68965	653676.78	4193075.30	0.47573
653976.78	4193075.30	0.54696	654276.78	4193075.30	0.65312
654576.78	4193075.30	0.83366	654876.78	4193075.30	1.08404
655176.78	4193075.30	1.12114	655476.78	4193075.30	1.18977
655776.78	4193075.30	1.24224	656076.78	4193075.30	1.09705
656376.78	4193075.30	1.00263	656676.78	4193075.30	0.88008
653676.78	4193375.30	0.57983	653976.78	4193375.30	0.70506
654276.78	4193375.30	0.84681	654576.78	4193375.30	1.08366
654876.78	4193375.30	1.54146	655176.78	4193375.30	1.77135

655476.78	4193375.30	1.92056	655776.78	4193375.30	1.87435
656076.78	4193375.30	1.63507	656376.78	4193375.30	1.36965
656676.78	4193375.30	1.09984	653676.78	4193675.30	0.69152
653976.78	4193675.30	0.88595	654276.78	4193675.30	1.16507
654576.78	4193675.30	1.54889	654876.78	4193675.30	2.24671
655176.78	4193675.30	3.24682	655476.78	4193675.30	3.75220
655776.78	4193675.30	3.27605	656076.78	4193675.30	2.49671

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK20 ***

INCLUDING SOURCE(S): STCK20 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.77614	656676.78	4193675.30	1.28632
653676.78	4193975.30	0.84549	653976.78	4193975.30	1.12713
654276.78	4193975.30	1.58405	654576.78	4193975.30	2.36369
654876.78	4193975.30	3.87741	655176.78	4193975.30	8.39591
655476.78	4193975.30	10.76397	655776.78	4193975.30	6.21384
656076.78	4193975.30	3.29686	656376.78	4193975.30	2.02218
656676.78	4193975.30	1.38105	653676.78	4194275.30	0.98606
653976.78	4194275.30	1.37402	654276.78	4194275.30	2.06960
654576.78	4194275.30	3.55861	654876.78	4194275.30	7.82718
655176.78	4194275.30	25.73938	655476.78	4194275.30	26.94374
655776.78	4194275.30	6.91878	656076.78	4194275.30	3.28621
656376.78	4194275.30	1.96190	656676.78	4194275.30	1.32710
653676.78	4194575.30	0.94811	653976.78	4194575.30	1.28924
654276.78	4194575.30	1.88409	654576.78	4194575.30	3.02415
654876.78	4194575.30	5.53737	655176.78	4194575.30	6.17398
655476.78	4194575.30	4.25437	655776.78	4194575.30	3.07745
656076.78	4194575.30	2.14577	656376.78	4194575.30	1.49392
656676.78	4194575.30	1.10002	653676.78	4194875.30	0.83525
653976.78	4194875.30	1.09764	654276.78	4194875.30	1.47597
654576.78	4194875.30	2.11179	654876.78	4194875.30	2.62615
655176.78	4194875.30	2.10228	655476.78	4194875.30	1.81444
655776.78	4194875.30	1.46118	656076.78	4194875.30	1.18197
656376.78	4194875.30	0.98031	656676.78	4194875.30	0.80160
653676.78	4195175.30	0.71599	653976.78	4195175.30	0.88688
654276.78	4195175.30	1.14939	654576.78	4195175.30	1.37503
654876.78	4195175.30	1.32520	655176.78	4195175.30	1.11765
655476.78	4195175.30	1.02185	655776.78	4195175.30	0.89951
656076.78	4195175.30	0.75955	656376.78	4195175.30	0.64320
656676.78	4195175.30	0.56108	653676.78	4195475.30	0.60250
653976.78	4195475.30	0.73890	654276.78	4195475.30	0.85659
654576.78	4195475.30	0.86955	654876.78	4195475.30	0.79615
655176.78	4195475.30	0.71117	655476.78	4195475.30	0.66721

655776.78 4195475.30 0.61334 656076.78 4195475.30 0.53665
 656376.78 4195475.30 0.46913 656676.78 4195475.30 0.41925
 *** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK21 ***

INCLUDING SOURCE(S): STCK21 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.65731	656126.40	4192764.99	0.64291
656103.65	4192731.89	0.62314	656093.30	4192690.51	0.60028
656217.44	4192771.20	0.64737	656279.50	4192760.85	0.63842
656341.57	4192727.75	0.61520	656366.40	4192707.06	0.60223
653815.06	4193437.51	0.47801	653776.43	4193429.79	0.46574
653798.32	4193413.05	0.46617	653708.18	4193118.16	0.37036
653730.07	4193102.71	0.36976	653753.25	4193085.97	0.36908
653800.90	4193053.77	0.36852	653882.02	4192964.92	0.36151
653907.78	4192962.34	0.36491	653945.12	4192954.62	0.36919
654067.45	4192886.37	0.37547	654108.66	4192861.90	0.37793
654140.85	4192841.30	0.37983	654376.51	4192702.22	0.40130
654399.69	4192673.89	0.40108	654024.74	4193417.88	0.52168
653831.84	4193501.47	0.50367	653915.64	4193528.15	0.53717
653813.62	4193608.32	0.53118	653676.78	4192475.30	0.26015
653976.78	4192475.30	0.29437	654276.78	4192475.30	0.33993
654576.78	4192475.30	0.40409	654876.78	4192475.30	0.45883
655176.78	4192475.30	0.47209	655476.78	4192475.30	0.45009
655776.78	4192475.30	0.47800	656076.78	4192475.30	0.50092
656376.78	4192475.30	0.50558	656676.78	4192475.30	0.46715
653676.78	4192775.30	0.30030	653976.78	4192775.30	0.33964
654276.78	4192775.30	0.39402	654576.78	4192775.30	0.47383
654876.78	4192775.30	0.56779	655176.78	4192775.30	0.60444
655476.78	4192775.30	0.57810	655776.78	4192775.30	0.61997
656076.78	4192775.30	0.64668	656376.78	4192775.30	0.63229
656676.78	4192775.30	0.56395	653676.78	4193075.30	0.35630
653976.78	4193075.30	0.40186	654276.78	4193075.30	0.46625
654576.78	4193075.30	0.56516	654876.78	4193075.30	0.71276
655176.78	4193075.30	0.80645	655476.78	4193075.30	0.77754
655776.78	4193075.30	0.84405	656076.78	4193075.30	0.87116
656376.78	4193075.30	0.79634	656676.78	4193075.30	0.72947
653676.78	4193375.30	0.42967	653976.78	4193375.30	0.49411
654276.78	4193375.30	0.57177	654576.78	4193375.30	0.69519
654876.78	4193375.30	0.90668	655176.78	4193375.30	1.13156
655476.78	4193375.30	1.10964	655776.78	4193375.30	1.23129
656076.78	4193375.30	1.22379	656376.78	4193375.30	1.07651
656676.78	4193375.30	0.97923	653676.78	4193675.30	0.50244
653976.78	4193675.30	0.61447	654276.78	4193675.30	0.74019

654576.78 4193675.30 0.90254 654876.78 4193675.30 1.17437
655176.78 4193675.30 1.66822 655476.78 4193675.30 1.75132
655776.78 4193675.30 1.99714 656076.78 4193675.30 1.80667
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*
*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK21 ***
INCLUDING SOURCE(S): STCK21 ,
*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.58114	656676.78	4193675.30	1.29835
653676.78	4193975.30	0.59485	653976.78	4193975.30	0.73953
654276.78	4193975.30	0.95595	654576.78	4193975.30	1.26167
654876.78	4193975.30	1.67340	655176.78	4193975.30	2.64118
655476.78	4193975.30	3.33685	655776.78	4193975.30	3.80474
656076.78	4193975.30	3.12569	656376.78	4193975.30	2.28994
656676.78	4193975.30	1.62648	653676.78	4194275.30	0.70716
653976.78	4194275.30	0.91541	654276.78	4194275.30	1.23473
654576.78	4194275.30	1.76322	654876.78	4194275.30	2.72784
655176.78	4194275.30	4.61575	655476.78	4194275.30	9.32089
655776.78	4194275.30	9.99830	656076.78	4194275.30	5.18698
656376.78	4194275.30	2.85191	656676.78	4194275.30	1.80830
653676.78	4194575.30	0.80387	653976.78	4194575.30	1.07296
654276.78	4194575.30	1.52107	654576.78	4194575.30	2.36240
654876.78	4194575.30	4.28568	655176.78	4194575.30	10.65452
655476.78	4194575.30	0.00421	655776.78	4194575.30	16.19815
656076.78	4194575.30	5.41909	656376.78	4194575.30	2.79898
656676.78	4194575.30	1.74297	653676.78	4194875.30	0.77479
653976.78	4194875.30	1.02183	654276.78	4194875.30	1.41316
654576.78	4194875.30	2.11167	654876.78	4194875.30	3.47166
655176.78	4194875.30	6.55306	655476.78	4194875.30	5.10948
655776.78	4194875.30	3.77883	656076.78	4194875.30	2.75271
656376.78	4194875.30	1.91545	656676.78	4194875.30	1.35599
653676.78	4195175.30	0.70610	653976.78	4195175.30	0.89974
654276.78	4195175.30	1.18122	654576.78	4195175.30	1.60337
654876.78	4195175.30	2.31351	655176.78	4195175.30	2.51158
655476.78	4195175.30	1.98161	655776.78	4195175.30	1.69776
656076.78	4195175.30	1.36173	656376.78	4195175.30	1.09586
656676.78	4195175.30	0.92018	653676.78	4195475.30	0.61705
653976.78	4195475.30	0.75469	654276.78	4195475.30	0.94447
654576.78	4195475.30	1.22419	654876.78	4195475.30	1.37044
655176.78	4195475.30	1.24755	655476.78	4195475.30	1.08135
655776.78	4195475.30	0.98272	656076.78	4195475.30	0.84903
656376.78	4195475.30	0.71585	656676.78	4195475.30	0.61485
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK22 ***

INCLUDING SOURCE(S): STCK22 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.85993	656126.40	4192764.99	0.83785
656103.65	4192731.89	0.80754	656093.30	4192690.51	0.77286
656217.44	4192771.20	0.84413	656279.50	4192760.85	0.82919
656341.57	4192727.75	0.79273	656366.40	4192707.06	0.77275
653815.06	4193437.51	0.52319	653776.43	4193429.79	0.50740
653798.32	4193413.05	0.51095	653708.18	4193118.16	0.41937
653730.07	4193102.71	0.42043	653753.25	4193085.97	0.42117
653800.90	4193053.77	0.42244	653882.02	4192964.92	0.41244
653907.78	4192962.34	0.41588	653945.12	4192954.62	0.41979
654067.45	4192886.37	0.42126	654108.66	4192861.90	0.42223
654140.85	4192841.30	0.42295	654376.51	4192702.22	0.43856
654399.69	4192673.89	0.43724	654024.74	4193417.88	0.59672
653831.84	4193501.47	0.54770	653915.64	4193528.15	0.58894
653813.62	4193608.32	0.57442	653676.78	4192475.30	0.28494
653976.78	4192475.30	0.32012	654276.78	4192475.30	0.36790
654576.78	4192475.30	0.43596	654876.78	4192475.30	0.52869
655176.78	4192475.30	0.58695	655476.78	4192475.30	0.57373
655776.78	4192475.30	0.58477	656076.78	4192475.30	0.62634
656376.78	4192475.30	0.63254	656676.78	4192475.30	0.57465
653676.78	4192775.30	0.33771	653976.78	4192775.30	0.37802
654276.78	4192775.30	0.43392	654576.78	4192775.30	0.51685
654876.78	4192775.30	0.64549	655176.78	4192775.30	0.76878
655476.78	4192775.30	0.76778	655776.78	4192775.30	0.78967
656076.78	4192775.30	0.84343	656376.78	4192775.30	0.81704
656676.78	4192775.30	0.72537	653676.78	4193075.30	0.40346
653976.78	4193075.30	0.46312	654276.78	4193075.30	0.53032
654576.78	4193075.30	0.63212	654876.78	4193075.30	0.80240
655176.78	4193075.30	1.04425	655476.78	4193075.30	1.09410
655776.78	4193075.30	1.14263	656076.78	4193075.30	1.20577
656376.78	4193075.30	1.08069	656676.78	4193075.30	0.98900
653676.78	4193375.30	0.46541	653976.78	4193375.30	0.56416
654276.78	4193375.30	0.68067	654576.78	4193375.30	0.81657
654876.78	4193375.30	1.03787	655176.78	4193375.30	1.45995
655476.78	4193375.30	1.69887	655776.78	4193375.30	1.83902
656076.78	4193375.30	1.83887	656376.78	4193375.30	1.60113
656676.78	4193375.30	1.36140	653676.78	4193675.30	0.54588
653976.78	4193675.30	0.67199	654276.78	4193675.30	0.84876
654576.78	4193675.30	1.12214	654876.78	4193675.30	1.44471
655176.78	4193675.30	2.08714	655476.78	4193675.30	3.08068
655776.78	4193675.30	3.55412	656076.78	4193675.30	3.16955

*** AERMOD - VERSION 19191 *** ** C:\Users\Smith\Dropbox\My PC (DESKTOP-

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK22 ***
INCLUDING SOURCE(S): STCK22 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	2.48558	656676.78	4193675.30	1.79778
653676.78	4193975.30	0.64276	653976.78	4193975.30	0.81832
654276.78	4193975.30	1.08265	654576.78	4193975.30	1.48898
654876.78	4193975.30	2.20845	655176.78	4193975.30	3.54734
655476.78	4193975.30	7.51287	655776.78	4193975.30	9.96316
656076.78	4193975.30	6.30642	656376.78	4193975.30	3.40027
656676.78	4193975.30	2.08243	653676.78	4194275.30	0.73007
653976.78	4194275.30	0.95848	654276.78	4194275.30	1.32225
654576.78	4194275.30	1.96933	654876.78	4194275.30	3.30839
655176.78	4194275.30	6.99784	655476.78	4194275.30	20.33829
655776.78	4194275.30	33.75022	656076.78	4194275.30	7.61832
656376.78	4194275.30	3.48061	656676.78	4194275.30	2.05019
653676.78	4194575.30	0.72570	653976.78	4194575.30	0.93657
654276.78	4194575.30	1.26826	654576.78	4194575.30	1.84319
654876.78	4194575.30	2.95727	655176.78	4194575.30	5.42352
655476.78	4194575.30	7.34419	655776.78	4194575.30	4.70022
656076.78	4194575.30	3.37290	656376.78	4194575.30	2.29469
656676.78	4194575.30	1.57655	653676.78	4194875.30	0.65199
653976.78	4194875.30	0.83406	654276.78	4194875.30	1.08851
654576.78	4194875.30	1.46776	654876.78	4194875.30	2.09237
655176.78	4194875.30	2.76388	655476.78	4194875.30	2.25606
655776.78	4194875.30	1.92191	656076.78	4194875.30	1.54404
656376.78	4194875.30	1.24475	656676.78	4194875.30	1.02309
653676.78	4195175.30	0.58393	653976.78	4195175.30	0.71287
654276.78	4195175.30	0.88379	654576.78	4195175.30	1.14404
654876.78	4195175.30	1.41127	655176.78	4195175.30	1.38996
655476.78	4195175.30	1.16531	655776.78	4195175.30	1.06404
656076.78	4195175.30	0.93805	656376.78	4195175.30	0.78085
656676.78	4195175.30	0.67003	653676.78	4195475.30	0.50593
653976.78	4195475.30	0.60046	654276.78	4195475.30	0.73641
654576.78	4195475.30	0.86997	654876.78	4195475.30	0.89601
655176.78	4195475.30	0.82968	655476.78	4195475.30	0.73304
655776.78	4195475.30	0.68935	656076.78	4195475.30	0.63369
656376.78	4195475.30	0.55217	656676.78	4195475.30	0.48588

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK23 ***

INCLUDING SOURCE(S): STCK23 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.93785	656126.40	4192764.99	0.89781
656103.65	4192731.89	0.85701	656093.30	4192690.51	0.81552
656217.44	4192771.20	0.93946	656279.50	4192760.85	0.94800
656341.57	4192727.75	0.92593	656366.40	4192707.06	0.90841
653815.06	4193437.51	0.43953	653776.43	4193429.79	0.42783
653798.32	4193413.05	0.42960	653708.18	4193118.16	0.35772
653730.07	4193102.71	0.35977	653753.25	4193085.97	0.36195
653800.90	4193053.77	0.36689	653882.02	4192964.92	0.36966
653907.78	4192962.34	0.37407	653945.12	4192954.62	0.37984
654067.45	4192886.37	0.38897	654108.66	4192861.90	0.39071
654140.85	4192841.30	0.39134	654376.51	4192702.22	0.39231
654399.69	4192673.89	0.38898	654024.74	4193417.88	0.49120
653831.84	4193501.47	0.45968	653915.64	4193528.15	0.49030
653813.62	4193608.32	0.47867	653676.78	4192475.30	0.26942
653976.78	4192475.30	0.29661	654276.78	4192475.30	0.32967
654576.78	4192475.30	0.37474	654876.78	4192475.30	0.43927
655176.78	4192475.30	0.53554	655476.78	4192475.30	0.64299
655776.78	4192475.30	0.67028	656076.78	4192475.30	0.64937
656376.78	4192475.30	0.70974	656676.78	4192475.30	0.72699
653676.78	4192775.30	0.30948	653976.78	4192775.30	0.35208
654276.78	4192775.30	0.39607	654576.78	4192775.30	0.44886
654876.78	4192775.30	0.52645	655176.78	4192775.30	0.64800
655476.78	4192775.30	0.82856	655776.78	4192775.30	0.91607
656076.78	4192775.30	0.89337	656376.78	4192775.30	0.98644
656676.78	4192775.30	0.97788	653676.78	4193075.30	0.34625
653976.78	4193075.30	0.40714	654276.78	4193075.30	0.48037
654576.78	4193075.30	0.56264	654876.78	4193075.30	0.65956
655176.78	4193075.30	0.81268	655476.78	4193075.30	1.08738
655776.78	4193075.30	1.34320	656076.78	4193075.30	1.32799
656376.78	4193075.30	1.47500	656676.78	4193075.30	1.35447
653676.78	4193375.30	0.39521	653976.78	4193375.30	0.46659
654276.78	4193375.30	0.56285	654576.78	4193375.30	0.70043
654876.78	4193375.30	0.87844	655176.78	4193375.30	1.08720
655476.78	4193375.30	1.46329	655776.78	4193375.30	2.16929
656076.78	4193375.30	2.27378	656376.78	4193375.30	2.48078
656676.78	4193375.30	2.12963	653676.78	4193675.30	0.45244
653976.78	4193675.30	0.54911	654276.78	4193675.30	0.67591
654576.78	4193675.30	0.86220	654876.78	4193675.30	1.12244
655176.78	4193675.30	1.55534	655476.78	4193675.30	2.19379
655776.78	4193675.30	3.86164	656076.78	4193675.30	5.04337

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK23 ***
INCLUDING SOURCE(S): STCK23 ,
*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	4.96752	656676.78	4193675.30	3.54507
653676.78	4193975.30	0.50977	653976.78	4193975.30	0.63082
654276.78	4193975.30	0.80420	654576.78	4193975.30	1.05842
654876.78	4193975.30	1.47865	655176.78	4193975.30	2.24142
655476.78	4193975.30	3.86084	655776.78	4193975.30	7.83609
656076.78	4193975.30	25.03574	656376.78	4193975.30	11.29851
656676.78	4193975.30	4.65586	653676.78	4194275.30	0.54560
653976.78	4194275.30	0.68132	654276.78	4194275.30	0.87751
654576.78	4194275.30	1.18154	654876.78	4194275.30	1.69186
655176.78	4194275.30	2.67914	655476.78	4194275.30	5.04560
655776.78	4194275.30	13.55242	656076.78	4194275.30	11.60115
656376.78	4194275.30	7.58384	656676.78	4194275.30	3.78947
653676.78	4194575.30	0.51356	653976.78	4194575.30	0.62959
654276.78	4194575.30	0.79750	654576.78	4194575.30	1.05205
654876.78	4194575.30	1.45293	655176.78	4194575.30	2.11677
655476.78	4194575.30	3.35766	655776.78	4194575.30	4.27720
656076.78	4194575.30	3.08082	656376.78	4194575.30	2.42359
656676.78	4194575.30	1.86012	653676.78	4194875.30	0.47291
653976.78	4194875.30	0.57694	654276.78	4194875.30	0.71105
654576.78	4194875.30	0.89609	654876.78	4194875.30	1.15315
655176.78	4194875.30	1.56346	655476.78	4194875.30	1.93180
655776.78	4194875.30	1.71682	656076.78	4194875.30	1.46141
656376.78	4194875.30	1.27876	656676.78	4194875.30	1.05001
653676.78	4195175.30	0.43119	653976.78	4195175.30	0.50961
654276.78	4195175.30	0.60892	654576.78	4195175.30	0.73832
654876.78	4195175.30	0.93029	655176.78	4195175.30	1.10183
655476.78	4195175.30	1.09968	655776.78	4195175.30	0.94981
656076.78	4195175.30	0.87418	656376.78	4195175.30	0.80046
656676.78	4195175.30	0.69902	653676.78	4195475.30	0.38482
653976.78	4195475.30	0.44405	654276.78	4195475.30	0.52094
654576.78	4195475.30	0.62745	654876.78	4195475.30	0.72276
655176.78	4195475.30	0.74146	655476.78	4195475.30	0.70412
655776.78	4195475.30	0.62157	656076.78	4195475.30	0.59114
656376.78	4195475.30	0.54865	656676.78	4195475.30	0.50446

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK24 ***
INCLUDING SOURCE(S): STCK24 ,
*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.94553	656126.40	4192764.99	0.92537
656103.65	4192731.89	0.89294	656093.30	4192690.51	0.85378
656217.44	4192771.20	0.91825	656279.50	4192760.85	0.89695
656341.57	4192727.75	0.86205	656366.40	4192707.06	0.84473
653815.06	4193437.51	0.37379	653776.43	4193429.79	0.36468
653798.32	4193413.05	0.36650	653708.18	4193118.16	0.30882
653730.07	4193102.71	0.31000	653753.25	4193085.97	0.31127
653800.90	4193053.77	0.31445	653882.02	4192964.92	0.31684
653907.78	4192962.34	0.32055	653945.12	4192954.62	0.32561
654067.45	4192886.37	0.33724	654108.66	4192861.90	0.34059
654140.85	4192841.30	0.34277	654376.51	4192702.22	0.35250
654399.69	4192673.89	0.34958	654024.74	4193417.88	0.41459
653831.84	4193501.47	0.38795	653915.64	4193528.15	0.41107
653813.62	4193608.32	0.40065	653676.78	4192475.30	0.24366
653976.78	4192475.30	0.27075	654276.78	4192475.30	0.29839
654576.78	4192475.30	0.33085	654876.78	4192475.30	0.37566
655176.78	4192475.30	0.43911	655476.78	4192475.30	0.53468
655776.78	4192475.30	0.64852	656076.78	4192475.30	0.68534
656376.78	4192475.30	0.66204	656676.78	4192475.30	0.72428
653676.78	4192775.30	0.27028	653976.78	4192775.30	0.30959
654276.78	4192775.30	0.35278	654576.78	4192775.30	0.39848
654876.78	4192775.30	0.45133	655176.78	4192775.30	0.52751
655476.78	4192775.30	0.64685	655776.78	4192775.30	0.83062
656076.78	4192775.30	0.93753	656376.78	4192775.30	0.91642
656676.78	4192775.30	1.01284	653676.78	4193075.30	0.29921
653976.78	4193075.30	0.34554	654276.78	4193075.30	0.40565
654576.78	4193075.30	0.48122	654876.78	4193075.30	0.56726
655176.78	4193075.30	0.66380	655476.78	4193075.30	0.81265
655776.78	4193075.30	1.08451	656076.78	4193075.30	1.36918
656376.78	4193075.30	1.36123	656676.78	4193075.30	1.53273
653676.78	4193375.30	0.33977	653976.78	4193375.30	0.39589
654276.78	4193375.30	0.46623	654576.78	4193375.30	0.56283
654876.78	4193375.30	0.70059	655176.78	4193375.30	0.88102
655476.78	4193375.30	1.08832	655776.78	4193375.30	1.47716
656076.78	4193375.30	2.20743	656376.78	4193375.30	2.35304
656676.78	4193375.30	2.61612	653676.78	4193675.30	0.38052
653976.78	4193675.30	0.45277	654276.78	4193675.30	0.54532
654576.78	4193675.30	0.67818	654876.78	4193675.30	0.85364
655176.78	4193675.30	1.12018	655476.78	4193675.30	1.56030
655776.78	4193675.30	2.26918	656076.78	4193675.30	3.86785

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK24 ***
INCLUDING SOURCE(S): STCK24 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	5.35001	656676.78	4193675.30	5.37875
653676.78	4193975.30	0.41994	653976.78	4193975.30	0.50738
654276.78	4193975.30	0.62747	654576.78	4193975.30	0.79458
654876.78	4193975.30	1.05150	655176.78	4193975.30	1.47193
655476.78	4193975.30	2.24432	655776.78	4193975.30	3.88442
656076.78	4193975.30	8.08664	656376.78	4193975.30	29.63768
656676.78	4193975.30	12.50731	653676.78	4194275.30	0.44436
653976.78	4194275.30	0.53966	654276.78	4194275.30	0.67054
654576.78	4194275.30	0.86007	654876.78	4194275.30	1.14978
655176.78	4194275.30	1.63699	655476.78	4194275.30	2.56311
655776.78	4194275.30	4.72171	656076.78	4194275.30	11.77426
656376.78	4194275.30	10.34390	656676.78	4194275.30	7.11433
653676.78	4194575.30	0.42180	653976.78	4194575.30	0.50371
654276.78	4194575.30	0.61639	654576.78	4194575.30	0.77867
654876.78	4194575.30	1.02203	655176.78	4194575.30	1.39966
655476.78	4194575.30	2.01591	655776.78	4194575.30	3.12770
656076.78	4194575.30	3.94656	656376.78	4194575.30	2.94198
656676.78	4194575.30	2.32503	653676.78	4194875.30	0.39012
653976.78	4194875.30	0.46794	654276.78	4194875.30	0.56522
654576.78	4194875.30	0.69377	654876.78	4194875.30	0.86952
655176.78	4194875.30	1.11249	655476.78	4194875.30	1.49755
655776.78	4194875.30	1.83302	656076.78	4194875.30	1.64530
656376.78	4194875.30	1.40918	656676.78	4194875.30	1.24437
653676.78	4195175.30	0.36385	653976.78	4195175.30	0.42321
654276.78	4195175.30	0.49932	654576.78	4195175.30	0.59470
654876.78	4195175.30	0.71883	655176.78	4195175.30	0.90111
655476.78	4195175.30	1.06203	655776.78	4195175.30	1.06064
656076.78	4195175.30	0.92372	656376.78	4195175.30	0.85252
656676.78	4195175.30	0.78077	653676.78	4195475.30	0.32982
653976.78	4195475.30	0.37822	654276.78	4195475.30	0.43543
654576.78	4195475.30	0.50988	654876.78	4195475.30	0.61256
655176.78	4195475.30	0.70260	655476.78	4195475.30	0.72009
655776.78	4195475.30	0.68703	656076.78	4195475.30	0.60788
656376.78	4195475.30	0.57764	656676.78	4195475.30	0.53916

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK25 ***

INCLUDING SOURCE(S): STCK25 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	1.22788	656126.40	4192764.99	1.19195

656103.65	4192731.89	1.14398	656093.30	4192690.51	1.08582
656217.44	4192771.20	1.20963	656279.50	4192760.85	1.22115
656341.57	4192727.75	1.20133	656366.40	4192707.06	1.18056
653815.06	4193437.51	0.44709	653776.43	4193429.79	0.43493
653798.32	4193413.05	0.43784	653708.18	4193118.16	0.36764
653730.07	4193102.71	0.36905	653753.25	4193085.97	0.37041
653800.90	4193053.77	0.37360	653882.02	4192964.92	0.37364
653907.78	4192962.34	0.37822	653945.12	4192954.62	0.38443
654067.45	4192886.37	0.39944	654108.66	4192861.90	0.40465
654140.85	4192841.30	0.40846	654376.51	4192702.22	0.43028
654399.69	4192673.89	0.42736	654024.74	4193417.88	0.50492
653831.84	4193501.47	0.46497	653915.64	4193528.15	0.49594
653813.62	4193608.32	0.48010	653676.78	4192475.30	0.28170
653976.78	4192475.30	0.31949	654276.78	4192475.30	0.35902
654576.78	4192475.30	0.40227	654876.78	4192475.30	0.46283
655176.78	4192475.30	0.55292	655476.78	4192475.30	0.69624
655776.78	4192475.30	0.84166	656076.78	4192475.30	0.84024
656376.78	4192475.30	0.88146	656676.78	4192475.30	0.93550
653676.78	4192775.30	0.31245	653976.78	4192775.30	0.36411
654276.78	4192775.30	0.42650	654576.78	4192775.30	0.49667
654876.78	4192775.30	0.57386	655176.78	4192775.30	0.68448
655476.78	4192775.30	0.87300	655776.78	4192775.30	1.15891
656076.78	4192775.30	1.21896	656376.78	4192775.30	1.30762
656676.78	4192775.30	1.35854	653676.78	4193075.30	0.35478
653976.78	4193075.30	0.41353	654276.78	4193075.30	0.49142
654576.78	4193075.30	0.60055	654876.78	4193075.30	0.74282
655176.78	4193075.30	0.90561	655476.78	4193075.30	1.14934
655776.78	4193075.30	1.65501	656076.78	4193075.30	1.96420
656376.78	4193075.30	2.16475	656676.78	4193075.30	2.08139
653676.78	4193375.30	0.40255	653976.78	4193375.30	0.48065
654276.78	4193375.30	0.58306	654576.78	4193375.30	0.72412
654876.78	4193375.30	0.92785	655176.78	4193375.30	1.24103
655476.78	4193375.30	1.67507	655776.78	4193375.30	2.48873
656076.78	4193375.30	3.88723	656376.78	4193375.30	4.55638
656676.78	4193375.30	3.83452	653676.78	4193675.30	0.45043
653976.78	4193675.30	0.54890	654276.78	4193675.30	0.68035
654576.78	4193675.30	0.87923	654876.78	4193675.30	1.16676
655176.78	4193675.30	1.65494	655476.78	4193675.30	2.55766
655776.78	4193675.30	4.56142	656076.78	4193675.30	11.06595

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK25 ***

INCLUDING SOURCE(S): STCK25 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
-------------	-------------	------	-------------	-------------	------

656376.78	4193675.30	15.27097	656676.78	4193675.30	6.83846
653676.78	4193975.30	0.48590	653976.78	4193975.30	0.59791
654276.78	4193975.30	0.75738	654576.78	4193975.30	0.99089
654876.78	4193975.30	1.37408	655176.78	4193975.30	2.06676
655476.78	4193975.30	3.56119	655776.78	4193975.30	7.88123
656076.78	4193975.30	34.91021	656376.78	4193975.30	17.87176
656676.78	4193975.30	6.27465	653676.78	4194275.30	0.47399
653976.78	4194275.30	0.57440	654276.78	4194275.30	0.71318
654576.78	4194275.30	0.91830	654876.78	4194275.30	1.24033
655176.78	4194275.30	1.78393	655476.78	4194275.30	2.75865
655776.78	4194275.30	4.77467	656076.78	4194275.30	4.45682
656376.78	4194275.30	3.37336	656676.78	4194275.30	2.49762
653676.78	4194575.30	0.43572	653976.78	4194575.30	0.52687
654276.78	4194575.30	0.64795	654576.78	4194575.30	0.81197
654876.78	4194575.30	1.04323	655176.78	4194575.30	1.37816
655476.78	4194575.30	1.93127	655776.78	4194575.30	2.18408
656076.78	4194575.30	1.75428	656376.78	4194575.30	1.56457
656676.78	4194575.30	1.29107	653676.78	4194875.30	0.40154
653976.78	4194875.30	0.47510	654276.78	4194875.30	0.56759
654576.78	4194875.30	0.68568	654876.78	4194875.30	0.84541
655176.78	4194875.30	1.08015	655476.78	4194875.30	1.22534
655776.78	4194875.30	1.15731	656076.78	4194875.30	0.98763
656376.78	4194875.30	0.91529	656676.78	4194875.30	0.81969
653676.78	4195175.30	0.36409	653976.78	4195175.30	0.42069
654276.78	4195175.30	0.48910	654576.78	4195175.30	0.58150
654876.78	4195175.30	0.70529	655176.78	4195175.30	0.78981
655476.78	4195175.30	0.78905	655776.78	4195175.30	0.71782
656076.78	4195175.30	0.64894	656376.78	4195175.30	0.61435
656676.78	4195175.30	0.56901	653676.78	4195475.30	0.32573
653976.78	4195475.30	0.37012	654276.78	4195475.30	0.42933
654576.78	4195475.30	0.50316	654876.78	4195475.30	0.55727
655176.78	4195475.30	0.56605	655476.78	4195475.30	0.54857
655776.78	4195475.30	0.49517	656076.78	4195475.30	0.46548
656376.78	4195475.30	0.44527	656676.78	4195475.30	0.41766

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*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK26 ***

INCLUDING SOURCE(S): STCK26 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	1.33860	656126.40	4192764.99	1.28276
656103.65	4192731.89	1.21613	656093.30	4192690.51	1.14542
656217.44	4192771.20	1.31957	656279.50	4192760.85	1.30890
656341.57	4192727.75	1.25151	656366.40	4192707.06	1.21586
653815.06	4193437.51	0.54171	653776.43	4193429.79	0.52523

653798.32	4193413.05	0.52893	653708.18	4193118.16	0.43046
653730.07	4193102.71	0.43238	653753.25	4193085.97	0.43443
653800.90	4193053.77	0.43965	653882.02	4192964.92	0.44318
653907.78	4192962.34	0.44947	653945.12	4192954.62	0.45802
654067.45	4192886.37	0.47609	654108.66	4192861.90	0.48070
654140.85	4192841.30	0.48335	654376.51	4192702.22	0.49088
654399.69	4192673.89	0.48553	654024.74	4193417.88	0.61973
653831.84	4193501.47	0.56658	653915.64	4193528.15	0.60951
653813.62	4193608.32	0.58887	653676.78	4192475.30	0.31888
653976.78	4192475.30	0.35778	654276.78	4192475.30	0.40138
654576.78	4192475.30	0.46243	654876.78	4192475.30	0.55422
655176.78	4192475.30	0.69793	655476.78	4192475.30	0.83353
655776.78	4192475.30	0.82419	656076.78	4192475.30	0.86973
656376.78	4192475.30	0.91894	656676.78	4192475.30	0.85476
653676.78	4192775.30	0.36490	653976.78	4192775.30	0.42733
654276.78	4192775.30	0.49558	654576.78	4192775.30	0.57155
654876.78	4192775.30	0.68448	655176.78	4192775.30	0.87682
655476.78	4192775.30	1.15398	655776.78	4192775.30	1.19309
656076.78	4192775.30	1.28046	656376.78	4192775.30	1.32470
656676.78	4192775.30	1.15896	653676.78	4193075.30	0.41405
653976.78	4193075.30	0.49367	654276.78	4193075.30	0.60206
654576.78	4193075.30	0.74090	654876.78	4193075.30	0.90158
655176.78	4193075.30	1.15311	655476.78	4193075.30	1.66133
655776.78	4193075.30	1.92590	656076.78	4193075.30	2.11575
656376.78	4193075.30	2.00132	656676.78	4193075.30	1.75109
653676.78	4193375.30	0.48142	653976.78	4193375.30	0.58515
654276.78	4193375.30	0.72398	654576.78	4193375.30	0.92857
654876.78	4193375.30	1.24863	655176.78	4193375.30	1.68404
655476.78	4193375.30	2.46890	655776.78	4193375.30	3.76680
656076.78	4193375.30	4.35896	656376.78	4193375.30	3.64441
656676.78	4193375.30	2.62783	653676.78	4193675.30	0.54976
653976.78	4193675.30	0.68713	654276.78	4193675.30	0.87901
654576.78	4193675.30	1.18773	654876.78	4193675.30	1.66867
655176.78	4193675.30	2.56083	655476.78	4193675.30	4.41201
655776.78	4193675.30	10.75582	656076.78	4193675.30	13.68883

*** AERMOD - VERSION 19191 ***

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*** AERMET - VERSION 18081 ***

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PAGE 203

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK26 ***

INCLUDING SOURCE(S): STCK26 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	6.45630	656676.78	4193675.30	3.29963
653676.78	4193975.30	0.60284	653976.78	4193975.30	0.76537
654276.78	4193975.30	1.01079	654576.78	4193975.30	1.39969
654876.78	4193975.30	2.11508	655176.78	4193975.30	3.66665

655476.78	4193975.30	8.33791	655776.78	4193975.30	40.67702
656076.78	4193975.30	19.07747	656376.78	4193975.30	6.18958
656676.78	4193975.30	3.09699	653676.78	4194275.30	0.58328
653976.78	4194275.30	0.72743	654276.78	4194275.30	0.93908
654576.78	4194275.30	1.27525	654876.78	4194275.30	1.84339
655176.78	4194275.30	2.88383	655476.78	4194275.30	5.09110
655776.78	4194275.30	4.69528	656076.78	4194275.30	3.50715
656376.78	4194275.30	2.56772	656676.78	4194275.30	1.90448
653676.78	4194575.30	0.53426	653976.78	4194575.30	0.65922
654276.78	4194575.30	0.82960	654576.78	4194575.30	1.07113
654876.78	4194575.30	1.42242	655176.78	4194575.30	2.00563
655476.78	4194575.30	2.28379	655776.78	4194575.30	1.82433
656076.78	4194575.30	1.59933	656376.78	4194575.30	1.31555
656676.78	4194575.30	1.06767	653676.78	4194875.30	0.47945
653976.78	4194875.30	0.57742	654276.78	4194875.30	0.69957
654576.78	4194875.30	0.86532	654876.78	4194875.30	1.10987
655176.78	4194875.30	1.26258	655476.78	4194875.30	1.18947
655776.78	4194875.30	1.01627	656076.78	4194875.30	0.93342
656376.78	4194875.30	0.83219	656676.78	4194875.30	0.70126
653676.78	4195175.30	0.42704	653976.78	4195175.30	0.49702
654276.78	4195175.30	0.59179	654576.78	4195175.30	0.71978
654876.78	4195175.30	0.80841	655176.78	4195175.30	0.80708
655476.78	4195175.30	0.73187	655776.78	4195175.30	0.66192
656076.78	4195175.30	0.62349	656376.78	4195175.30	0.57281
656676.78	4195175.30	0.50818	653676.78	4195475.30	0.37502
653976.78	4195475.30	0.43560	654276.78	4195475.30	0.51152
654576.78	4195475.30	0.56725	654876.78	4195475.30	0.57670
655176.78	4195475.30	0.55837	655476.78	4195475.30	0.50220
655776.78	4195475.30	0.47256	656076.78	4195475.30	0.45117
656376.78	4195475.30	0.41920	656676.78	4195475.30	0.38737

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*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK27 ***

INCLUDING SOURCE(S): STCK27 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	1.31280	656126.40	4192764.99	1.29827
656103.65	4192731.89	1.25482	656093.30	4192690.51	1.19445
656217.44	4192771.20	1.25563	656279.50	4192760.85	1.20250
656341.57	4192727.75	1.12569	656366.40	4192707.06	1.08862
653815.06	4193437.51	0.66541	653776.43	4193429.79	0.64266
653798.32	4193413.05	0.64705	653708.18	4193118.16	0.51244
653730.07	4193102.71	0.51573	653753.25	4193085.97	0.51926
653800.90	4193053.77	0.52750	653882.02	4192964.92	0.53096
653907.78	4192962.34	0.53878	653945.12	4192954.62	0.54887

654067.45	4192886.37	0.56251	654108.66	4192861.90	0.56422
654140.85	4192841.30	0.56417	654376.51	4192702.22	0.56970
654399.69	4192673.89	0.56535	654024.74	4193417.88	0.77195
653831.84	4193501.47	0.70165	653915.64	4193528.15	0.76278
653813.62	4193608.32	0.73452	653676.78	4192475.30	0.35724
653976.78	4192475.30	0.40063	654276.78	4192475.30	0.46117
654576.78	4192475.30	0.55162	654876.78	4192475.30	0.69423
655176.78	4192475.30	0.83570	655476.78	4192475.30	0.83200
655776.78	4192475.30	0.87108	656076.78	4192475.30	0.92268
656376.78	4192475.30	0.86469	656676.78	4192475.30	0.77530
653676.78	4192775.30	0.42596	653976.78	4192775.30	0.49549
654276.78	4192775.30	0.57140	654576.78	4192775.30	0.68222
654876.78	4192775.30	0.87194	655176.78	4192775.30	1.15437
655476.78	4192775.30	1.20909	655776.78	4192775.30	1.28669
656076.78	4192775.30	1.33350	656376.78	4192775.30	1.17309
656676.78	4192775.30	1.06346	653676.78	4193075.30	0.49169
653976.78	4193075.30	0.60066	654276.78	4193075.30	0.73864
654576.78	4193075.30	0.89915	654876.78	4193075.30	1.14759
655176.78	4193075.30	1.65219	655476.78	4193075.30	1.95705
655776.78	4193075.30	2.14435	656076.78	4193075.30	2.03438
656376.78	4193075.30	1.76824	656676.78	4193075.30	1.44713
653676.78	4193375.30	0.58185	653976.78	4193375.30	0.72190
654276.78	4193375.30	0.92176	654576.78	4193375.30	1.23845
654876.78	4193375.30	1.68666	655176.78	4193375.30	2.47350
655476.78	4193375.30	3.76833	655776.78	4193375.30	4.43287
656076.78	4193375.30	3.72184	656376.78	4193375.30	2.68207
656676.78	4193375.30	1.84105	653676.78	4193675.30	0.68053
653976.78	4193675.30	0.87819	654276.78	4193675.30	1.17098
654576.78	4193675.30	1.68011	654876.78	4193675.30	2.54687
655176.78	4193675.30	4.36524	655476.78	4193675.30	10.32379
655776.78	4193675.30	14.24710	656076.78	4193675.30	6.70757

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK27 ***

INCLUDING SOURCE(S): STCK27 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	3.37658	656676.78	4193675.30	2.04627
653676.78	4193975.30	0.75799	653976.78	4193975.30	0.99982
654276.78	4193975.30	1.39264	654576.78	4193975.30	2.08342
654876.78	4193975.30	3.57934	655176.78	4193975.30	7.93636
655476.78	4193975.30	35.94977	655776.78	4193975.30	19.61013
656076.78	4193975.30	6.36315	656376.78	4193975.30	3.14368
656676.78	4193975.30	1.91548	653676.78	4194275.30	0.71885
653976.78	4194275.30	0.92883	654276.78	4194275.30	1.25885

654576.78	4194275.30	1.81703	654876.78	4194275.30	2.81831
655176.78	4194275.30	4.92878	655476.78	4194275.30	4.72801
655776.78	4194275.30	3.50412	656076.78	4194275.30	2.57503
656376.78	4194275.30	1.90427	656676.78	4194275.30	1.38279
653676.78	4194575.30	0.65251	653976.78	4194575.30	0.82016
654276.78	4194575.30	1.05776	654576.78	4194575.30	1.40209
654876.78	4194575.30	1.97248	655176.78	4194575.30	2.26978
655476.78	4194575.30	1.83090	655776.78	4194575.30	1.60603
656076.78	4194575.30	1.31772	656376.78	4194575.30	1.06917
656676.78	4194575.30	0.89375	653676.78	4194875.30	0.56848
653976.78	4194875.30	0.69246	654276.78	4194875.30	0.85521
654576.78	4194875.30	1.09698	654876.78	4194875.30	1.25509
655176.78	4194875.30	1.19094	655476.78	4194875.30	1.01704
655776.78	4194875.30	0.93551	656076.78	4194875.30	0.83272
656376.78	4194875.30	0.70715	656676.78	4194875.30	0.60691
653676.78	4195175.30	0.49312	653976.78	4195175.30	0.58608
654276.78	4195175.30	0.71273	654576.78	4195175.30	0.80357
654876.78	4195175.30	0.80555	655176.78	4195175.30	0.73398
655476.78	4195175.30	0.66194	655776.78	4195175.30	0.62318
656076.78	4195175.30	0.57661	656376.78	4195175.30	0.50581
656676.78	4195175.30	0.44530	653676.78	4195475.30	0.43196
653976.78	4195475.30	0.50744	654276.78	4195475.30	0.56424
654576.78	4195475.30	0.57470	654876.78	4195475.30	0.55832
655176.78	4195475.30	0.50345	655476.78	4195475.30	0.47180
655776.78	4195475.30	0.45052	656076.78	4195475.30	0.42003
656376.78	4195475.30	0.38510	656676.78	4195475.30	0.34595

*** AERMOD - VERSION 19191 ***

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*** AERMET - VERSION 18081 ***

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK28 ***

INCLUDING SOURCE(S): STCK28 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC

656165.71	4192787.75	1.13567	656126.40	4192764.99	1.11763
656103.65	4192731.89	1.08012	656093.30	4192690.51	1.03114
656217.44	4192771.20	1.09508	656279.50	4192760.85	1.05875
656341.57	4192727.75	0.99825	656366.40	4192707.06	0.96816
653815.06	4193437.51	0.91094	653776.43	4193429.79	0.87381
653798.32	4193413.05	0.87956	653708.18	4193118.16	0.67022
653730.07	4193102.71	0.67389	653753.25	4193085.97	0.67724
653800.90	4193053.77	0.68331	653882.02	4192964.92	0.66756
653907.78	4192962.34	0.67608	653945.12	4192954.62	0.68577
654067.45	4192886.37	0.69074	654108.66	4192861.90	0.69337
654140.85	4192841.30	0.69522	654376.51	4192702.22	0.73916
654399.69	4192673.89	0.73753	654024.74	4193417.88	1.08861
653831.84	4193501.47	0.97513	653915.64	4193528.15	1.07926

653813.62	4193608.32	1.04036	653676.78	4192475.30	0.41480
653976.78	4192475.30	0.47947	654276.78	4192475.30	0.58092
654576.78	4192475.30	0.74097	654876.78	4192475.30	0.85029
655176.78	4192475.30	0.81983	655476.78	4192475.30	0.89620
655776.78	4192475.30	0.92553	656076.78	4192475.30	0.83337
656376.78	4192475.30	0.76619	656676.78	4192475.30	0.70291
653676.78	4192775.30	0.51509	653976.78	4192775.30	0.59528
654276.78	4192775.30	0.72326	654576.78	4192775.30	0.94616
654876.78	4192775.30	1.20922	655176.78	4192775.30	1.19466
655476.78	4192775.30	1.32727	655776.78	4192775.30	1.30385
656076.78	4192775.30	1.14843	656376.78	4192775.30	1.03003
656676.78	4192775.30	0.87681	653676.78	4193075.30	0.63781
653976.78	4193075.30	0.78356	654276.78	4193075.30	0.95841
654576.78	4193075.30	1.25414	654876.78	4193075.30	1.82263
655176.78	4193075.30	1.93454	655476.78	4193075.30	2.20632
655776.78	4193075.30	1.96418	656076.78	4193075.30	1.69862
656376.78	4193075.30	1.36221	656676.78	4193075.30	1.06992
653676.78	4193375.30	0.77420	653976.78	4193375.30	1.00328
654276.78	4193375.30	1.36017	654576.78	4193375.30	1.84306
654876.78	4193375.30	2.89039	655176.78	4193375.30	3.83818
655476.78	4193375.30	4.36698	655776.78	4193375.30	3.46464
656076.78	4193375.30	2.42230	656376.78	4193375.30	1.67120
656676.78	4193375.30	1.20284	653676.78	4193675.30	0.95083
653976.78	4193675.30	1.30081	654276.78	4193675.30	1.88537
654576.78	4193675.30	3.01426	654876.78	4193675.30	5.33206
655176.78	4193675.30	12.05214	655476.78	4193675.30	12.28218
655776.78	4193675.30	5.42760	656076.78	4193675.30	2.89721

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
 STCK28 ***
 INCLUDING SOURCE(S): STCK28 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.81772	656676.78	4193675.30	1.26199
653676.78	4193975.30	1.09207	653976.78	4193975.30	1.55271
654276.78	4193975.30	2.41673	654576.78	4193975.30	4.36591
654876.78	4193975.30	10.89154	655176.78	4193975.30	23.21149
655476.78	4193975.30	13.23876	655776.78	4193975.30	5.03506
656076.78	4193975.30	2.68284	656376.78	4193975.30	1.69418
656676.78	4193975.30	1.18464	653676.78	4194275.30	1.00472
653976.78	4194275.30	1.38800	654276.78	4194275.30	2.04116
654576.78	4194275.30	3.24110	654876.78	4194275.30	5.56376
655176.78	4194275.30	4.14281	655476.78	4194275.30	3.10564
655776.78	4194275.30	2.31871	656076.78	4194275.30	1.72265
656376.78	4194275.30	1.25674	656676.78	4194275.30	0.95833

653676.78	4194575.30	0.87731	653976.78	4194575.30	1.13946
654276.78	4194575.30	1.53068	654576.78	4194575.30	2.12953
654876.78	4194575.30	2.17608	655176.78	4194575.30	1.73567
655476.78	4194575.30	1.49514	655776.78	4194575.30	1.21978
656076.78	4194575.30	1.00649	656376.78	4194575.30	0.84670
656676.78	4194575.30	0.71040	653676.78	4194875.30	0.72630
653976.78	4194875.30	0.91378	654276.78	4194875.30	1.16076
654576.78	4194875.30	1.24986	654876.78	4194875.30	1.12514
655176.78	4194875.30	0.98186	655476.78	4194875.30	0.89263
655776.78	4194875.30	0.78488	656076.78	4194875.30	0.67258
656376.78	4194875.30	0.57872	656676.78	4194875.30	0.50477
653676.78	4195175.30	0.61851	653976.78	4195175.30	0.74516
654276.78	4195175.30	0.80806	654576.78	4195175.30	0.79092
654876.78	4195175.30	0.69566	655176.78	4195175.30	0.64330
655476.78	4195175.30	0.59897	655776.78	4195175.30	0.55288
656076.78	4195175.30	0.48541	656376.78	4195175.30	0.42800
656676.78	4195175.30	0.38365	653676.78	4195475.30	0.52636
653976.78	4195475.30	0.56973	654276.78	4195475.30	0.57114
654576.78	4195475.30	0.54295	654876.78	4195475.30	0.48251
655176.78	4195475.30	0.45925	655476.78	4195475.30	0.43564
655776.78	4195475.30	0.40886	656076.78	4195475.30	0.37201
656376.78	4195475.30	0.32948	656676.78	4195475.30	0.30464

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK3 ***

INCLUDING SOURCE(S): STCK3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.60698	656126.40	4192764.99	0.59874
656103.65	4192731.89	0.58447	656093.30	4192690.51	0.56620
656217.44	4192771.20	0.59402	656279.50	4192760.85	0.58301
656341.57	4192727.75	0.56142	656366.40	4192707.06	0.54987
653815.06	4193437.51	0.64776	653776.43	4193429.79	0.62758
653798.32	4193413.05	0.62845	653708.18	4193118.16	0.49403
653730.07	4193102.71	0.49540	653753.25	4193085.97	0.49711
653800.90	4193053.77	0.50240	653882.02	4192964.92	0.50349
653907.78	4192962.34	0.51231	653945.12	4192954.62	0.52447
654067.45	4192886.37	0.55593	654108.66	4192861.90	0.56634
654140.85	4192841.30	0.57339	654376.51	4192702.22	0.58446
654399.69	4192673.89	0.57380	654024.74	4193417.88	0.73492
653831.84	4193501.47	0.69298	653915.64	4193528.15	0.74502
653813.62	4193608.32	0.75317	653676.78	4192475.30	0.35180
653976.78	4192475.30	0.42122	654276.78	4192475.30	0.48235
654576.78	4192475.30	0.49085	654876.78	4192475.30	0.46973
655176.78	4192475.30	0.51433	655476.78	4192475.30	0.53870

655776.78	4192475.30	0.53701	656076.78	4192475.30	0.48804
656376.78	4192475.30	0.46084	656676.78	4192475.30	0.44094
653676.78	4192775.30	0.40389	653976.78	4192775.30	0.48836
654276.78	4192775.30	0.59721	654576.78	4192775.30	0.62946
654876.78	4192775.30	0.60544	655176.78	4192775.30	0.67062
655476.78	4192775.30	0.70175	655776.78	4192775.30	0.66248
656076.78	4192775.30	0.60857	656376.78	4192775.30	0.57805
656676.78	4192775.30	0.52840	653676.78	4193075.30	0.47344
653976.78	4193075.30	0.57457	654276.78	4193075.30	0.73993
654576.78	4193075.30	0.83653	654876.78	4193075.30	0.81057
655176.78	4193075.30	0.91633	655476.78	4193075.30	0.94303
655776.78	4193075.30	0.85154	656076.78	4193075.30	0.79834
656376.78	4193075.30	0.71950	656676.78	4193075.30	0.63056
653676.78	4193375.30	0.57587	653976.78	4193375.30	0.68940
654276.78	4193375.30	0.91085	654576.78	4193375.30	1.16904
654876.78	4193375.30	1.15862	655176.78	4193375.30	1.35784
655476.78	4193375.30	1.30538	655776.78	4193375.30	1.19594
656076.78	4193375.30	1.04916	656376.78	4193375.30	0.88294
656676.78	4193375.30	0.73536	653676.78	4193675.30	0.73055
653976.78	4193675.30	0.88147	654276.78	4193675.30	1.11405
654576.78	4193675.30	1.71492	654876.78	4193675.30	1.80922
655176.78	4193675.30	2.23343	655476.78	4193675.30	2.05025
655776.78	4193675.30	1.71284	656076.78	4193675.30	1.33466

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK3 ***

INCLUDING SOURCE(S): STCK3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.03265	656676.78	4193675.30	0.81372
653676.78	4193975.30	0.91050	653976.78	4193975.30	1.17433
654276.78	4193975.30	1.52171	654576.78	4193975.30	2.35558
654876.78	4193975.30	3.53285	655176.78	4193975.30	4.64850
655476.78	4193975.30	3.45692	655776.78	4193975.30	2.25183
656076.78	4193975.30	1.53612	656376.78	4193975.30	1.11552
656676.78	4193975.30	0.85515	653676.78	4194275.30	1.16461
653976.78	4194275.30	1.59637	654276.78	4194275.30	2.24761
654576.78	4194275.30	3.04383	654876.78	4194275.30	18.34571
655176.78	4194275.30	10.74874	655476.78	4194275.30	4.35914
655776.78	4194275.30	2.42740	656076.78	4194275.30	1.58072
656376.78	4194275.30	1.12221	656676.78	4194275.30	0.84723
653676.78	4194575.30	1.30388	653976.78	4194575.30	1.85314
654276.78	4194575.30	2.88201	654576.78	4194575.30	5.68689
654876.78	4194575.30	3.52334	655176.78	4194575.30	4.17884
655476.78	4194575.30	2.95407	655776.78	4194575.30	1.95844

654876.78	4192775.30	0.70189	655176.78	4192775.30	0.76551
655476.78	4192775.30	0.81928	655776.78	4192775.30	0.77643
656076.78	4192775.30	0.71366	656376.78	4192775.30	0.66886
656676.78	4192775.30	0.60007	653676.78	4193075.30	0.50440
653976.78	4193075.30	0.59440	654276.78	4193075.30	0.76339
654576.78	4193075.30	0.97706	654876.78	4193075.30	0.96398
655176.78	4193075.30	1.08407	655476.78	4193075.30	1.14507
655776.78	4193075.30	1.03571	656076.78	4193075.30	0.95958
656376.78	4193075.30	0.84196	656676.78	4193075.30	0.72014
653676.78	4193375.30	0.63334	653976.78	4193375.30	0.74149
654276.78	4193375.30	0.93220	654576.78	4193375.30	1.34039
654876.78	4193375.30	1.42839	655176.78	4193375.30	1.70545
655476.78	4193375.30	1.68737	655776.78	4193375.30	1.52055
656076.78	4193375.30	1.27706	656376.78	4193375.30	1.03336
656676.78	4193375.30	0.83151	653676.78	4193675.30	0.77432
653976.78	4193675.30	0.98355	654276.78	4193675.30	1.19519
654576.78	4193675.30	1.78891	654876.78	4193675.30	2.37381
655176.78	4193675.30	3.18130	655476.78	4193675.30	2.92545
655776.78	4193675.30	2.22548	656076.78	4193675.30	1.60229

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK4 ***

INCLUDING SOURCE(S): STCK4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.17583	656676.78	4193675.30	0.89862
653676.78	4193975.30	0.97348	653976.78	4193975.30	1.28056
654276.78	4193975.30	1.73011	654576.78	4193975.30	2.25327
654876.78	4193975.30	5.03830	655176.78	4193975.30	9.04450
655476.78	4193975.30	4.97186	655776.78	4193975.30	2.75676
656076.78	4193975.30	1.76356	656376.78	4193975.30	1.23897
656676.78	4193975.30	0.92829	653676.78	4194275.30	1.19869
653976.78	4194275.30	1.69786	654276.78	4194275.30	2.57205
654576.78	4194275.30	4.19813	654876.78	4194275.30	17.93376
655176.78	4194275.30	13.04726	655476.78	4194275.30	4.77732
655776.78	4194275.30	2.58201	656076.78	4194275.30	1.65817
656376.78	4194275.30	1.16590	656676.78	4194275.30	0.87540
653676.78	4194575.30	1.12434	653976.78	4194575.30	1.55330
654276.78	4194575.30	2.29809	654576.78	4194575.30	3.83204
654876.78	4194575.30	2.31827	655176.78	4194575.30	1.94326
655476.78	4194575.30	1.90244	655776.78	4194575.30	1.58525
656076.78	4194575.30	1.22214	656376.78	4194575.30	0.94235
656676.78	4194575.30	0.74962	653676.78	4194875.30	0.95438
653976.78	4194875.30	1.27044	654276.78	4194875.30	1.74072
654576.78	4194875.30	1.79914	654876.78	4194875.30	1.22129

655176.78	4194875.30	1.09112	655476.78	4194875.30	0.97755
655776.78	4194875.30	0.88725	656076.78	4194875.30	0.79855
656376.78	4194875.30	0.68534	656676.78	4194875.30	0.57409
653676.78	4195175.30	0.81227	653976.78	4195175.30	1.02245
654276.78	4195175.30	1.11992	654576.78	4195175.30	0.97399
654876.78	4195175.30	0.78032	655176.78	4195175.30	0.72023
655476.78	4195175.30	0.66033	655776.78	4195175.30	0.59368
656076.78	4195175.30	0.53609	656376.78	4195175.30	0.47905
656676.78	4195175.30	0.44082	653676.78	4195475.30	0.68519
653976.78	4195475.30	0.75399	654276.78	4195475.30	0.72936
654576.78	4195475.30	0.62434	654876.78	4195475.30	0.54807
655176.78	4195475.30	0.51486	655476.78	4195475.30	0.48566
655776.78	4195475.30	0.43725	656076.78	4195475.30	0.39727
656376.78	4195475.30	0.36240	656676.78	4195475.30	0.33111

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK5 ***

INCLUDING SOURCE(S): STCK5 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC

656165.71	4192787.75	0.63239	656126.40	4192764.99	0.63132
656103.65	4192731.89	0.62216	656093.30	4192690.51	0.60684
656217.44	4192771.20	0.61394	656279.50	4192760.85	0.59821
656341.57	4192727.75	0.57377	656366.40	4192707.06	0.56115
653815.06	4193437.51	0.54579	653776.43	4193429.79	0.53116
653798.32	4193413.05	0.53086	653708.18	4193118.16	0.42029
653730.07	4193102.71	0.42007	653753.25	4193085.97	0.41975
653800.90	4193053.77	0.42023	653882.02	4192964.92	0.41485
653907.78	4192962.34	0.41966	653945.12	4192954.62	0.42617
654067.45	4192886.37	0.44157	654108.66	4192861.90	0.44743
654140.85	4192841.30	0.45200	654376.51	4192702.22	0.49612
654399.69	4192673.89	0.49583	654024.74	4193417.88	0.59299
653831.84	4193501.47	0.58067	653915.64	4193528.15	0.61867
653813.62	4193608.32	0.62039	653676.78	4192475.30	0.29866
653976.78	4192475.30	0.34588	654276.78	4192475.30	0.41428
654576.78	4192475.30	0.47303	654876.78	4192475.30	0.48050
655176.78	4192475.30	0.46033	655476.78	4192475.30	0.50093
655776.78	4192475.30	0.52489	656076.78	4192475.30	0.52563
656376.78	4192475.30	0.47835	656676.78	4192475.30	0.44832
653676.78	4192775.30	0.34227	653976.78	4192775.30	0.39659
654276.78	4192775.30	0.48021	654576.78	4192775.30	0.58226
654876.78	4192775.30	0.61183	655176.78	4192775.30	0.58803
655476.78	4192775.30	0.64945	655776.78	4192775.30	0.68026
656076.78	4192775.30	0.64762	656376.78	4192775.30	0.59130
656676.78	4192775.30	0.56256	653676.78	4193075.30	0.40428

653976.78	4193075.30	0.46335	654276.78	4193075.30	0.56130
654576.78	4193075.30	0.72046	654876.78	4193075.30	0.80887
655176.78	4193075.30	0.78399	655476.78	4193075.30	0.88303
655776.78	4193075.30	0.91236	656076.78	4193075.30	0.82289
656376.78	4193075.30	0.77397	656676.78	4193075.30	0.70402
653676.78	4193375.30	0.49175	653976.78	4193375.30	0.56178
654276.78	4193375.30	0.66875	654576.78	4193375.30	0.88826
654876.78	4193375.30	1.12271	655176.78	4193375.30	1.11128
655476.78	4193375.30	1.28410	655776.78	4193375.30	1.25852
656076.78	4193375.30	1.15212	656376.78	4193375.30	1.02134
656676.78	4193375.30	0.86452	653676.78	4193675.30	0.58975
653976.78	4193675.30	0.71736	654276.78	4193675.30	0.83737
654576.78	4193675.30	1.09792	654876.78	4193675.30	1.59687
655176.78	4193675.30	1.69565	655476.78	4193675.30	2.09969
655776.78	4193675.30	1.94580	656076.78	4193675.30	1.65282

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

*** 12:37:56

PAGE 213

*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK5 ***

INCLUDING SOURCE(S): STCK5 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.30526	656676.78	4193675.30	1.02419
653676.78	4193975.30	0.71224	653976.78	4193975.30	0.88726
654276.78	4193975.30	1.13891	654576.78	4193975.30	1.41571
654876.78	4193975.30	2.26724	655176.78	4193975.30	3.21293
655476.78	4193975.30	4.22688	655776.78	4193975.30	3.29462
656076.78	4193975.30	2.21366	656376.78	4193975.30	1.52653
656676.78	4193975.30	1.11629	653676.78	4194275.30	0.86904
653976.78	4194275.30	1.13699	654276.78	4194275.30	1.52865
654576.78	4194275.30	2.12691	654876.78	4194275.30	2.82638
655176.78	4194275.30	12.59654	655476.78	4194275.30	10.44968
655776.78	4194275.30	4.37545	656076.78	4194275.30	2.45362
656376.78	4194275.30	1.59392	656676.78	4194275.30	1.13494
653676.78	4194575.30	0.97562	653976.78	4194575.30	1.31400
654276.78	4194575.30	1.87425	654576.78	4194575.30	2.90637
654876.78	4194575.30	5.54942	655176.78	4194575.30	4.40512
655476.78	4194575.30	5.20086	655776.78	4194575.30	3.26107
656076.78	4194575.30	2.06425	656376.78	4194575.30	1.40888
656676.78	4194575.30	1.03051	653676.78	4194875.30	0.86685
653976.78	4194875.30	1.16275	654276.78	4194875.30	1.59532
654576.78	4194875.30	2.35536	654876.78	4194875.30	2.91700
655176.78	4194875.30	1.66006	655476.78	4194875.30	1.51721
655776.78	4194875.30	1.41866	656076.78	4194875.30	1.23810
656376.78	4194875.30	0.99401	656676.78	4194875.30	0.79432
653676.78	4195175.30	0.77582	653976.78	4195175.30	0.97327

654276.78	4195175.30	1.27430	654576.78	4195175.30	1.54949
654876.78	4195175.30	1.30101	655176.78	4195175.30	1.00538
655476.78	4195175.30	0.92010	655776.78	4195175.30	0.82373
656076.78	4195175.30	0.74228	656376.78	4195175.30	0.65672
656676.78	4195175.30	0.58726	653676.78	4195475.30	0.65935
653976.78	4195475.30	0.81361	654276.78	4195475.30	0.95666
654576.78	4195475.30	0.93602	654876.78	4195475.30	0.76908
655176.78	4195475.30	0.67694	655476.78	4195475.30	0.63060
655776.78	4195475.30	0.57662	656076.78	4195475.30	0.51300
656376.78	4195475.30	0.46396	656676.78	4195475.30	0.42191

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

*** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK6 ***

INCLUDING SOURCE(S): STCK6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.75396	656126.40	4192764.99	0.75166
656103.65	4192731.89	0.73843	656093.30	4192690.51	0.71714
656217.44	4192771.20	0.72989	656279.50	4192760.85	0.70942
656341.57	4192727.75	0.67773	656366.40	4192707.06	0.66128
653815.06	4193437.51	0.57770	653776.43	4193429.79	0.55970
653798.32	4193413.05	0.56283	653708.18	4193118.16	0.45086
653730.07	4193102.71	0.45033	653753.25	4193085.97	0.44907
653800.90	4193053.77	0.44702	653882.02	4192964.92	0.43485
653907.78	4192962.34	0.43888	653945.12	4192954.62	0.44392
654067.45	4192886.37	0.45176	654108.66	4192861.90	0.45546
654140.85	4192841.30	0.45861	654376.51	4192702.22	0.49740
654399.69	4192673.89	0.49861	654024.74	4193417.88	0.64357
653831.84	4193501.47	0.60898	653915.64	4193528.15	0.65432
653813.62	4193608.32	0.63812	653676.78	4192475.30	0.30638
653976.78	4192475.30	0.35052	654276.78	4192475.30	0.41540
654576.78	4192475.30	0.50465	654876.78	4192475.30	0.55097
655176.78	4192475.30	0.53155	655476.78	4192475.30	0.55452
655776.78	4192475.30	0.59792	656076.78	4192475.30	0.60716
656376.78	4192475.30	0.55433	656676.78	4192475.30	0.51679
653676.78	4192775.30	0.35796	653976.78	4192775.30	0.40581
654276.78	4192775.30	0.48207	654576.78	4192775.30	0.60392
654876.78	4192775.30	0.70805	655176.78	4192775.30	0.69310
655476.78	4192775.30	0.73590	655776.78	4192775.30	0.79534
656076.78	4192775.30	0.77176	656376.78	4192775.30	0.70099
656676.78	4192775.30	0.66101	653676.78	4193075.30	0.43299
653976.78	4193075.30	0.48719	654276.78	4193075.30	0.56921
654576.78	4193075.30	0.72376	654876.78	4193075.30	0.93617
655176.78	4193075.30	0.94946	655476.78	4193075.30	1.03634
655776.78	4193075.30	1.11763	656076.78	4193075.30	1.01495

656376.78	4193075.30	0.94521	656676.78	4193075.30	0.84141
653676.78	4193375.30	0.51570	653976.78	4193375.30	0.60864
654276.78	4193375.30	0.70444	654576.78	4193375.30	0.87990
654876.78	4193375.30	1.25230	655176.78	4193375.30	1.39755
655476.78	4193375.30	1.58932	655776.78	4193375.30	1.65388
656076.78	4193375.30	1.49814	656376.78	4193375.30	1.28195
656676.78	4193375.30	1.04488	653676.78	4193675.30	0.60417
653976.78	4193675.30	0.74520	654276.78	4193675.30	0.91530
654576.78	4193675.30	1.14367	654876.78	4193675.30	1.57893
655176.78	4193675.30	2.23590	655476.78	4193675.30	2.92046
655776.78	4193675.30	2.84259	656076.78	4193675.30	2.25185

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

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PAGE 215

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK6 ***

INCLUDING SOURCE(S): STCK6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.64449	656676.78	4193675.30	1.21626
653676.78	4193975.30	0.73110	653976.78	4193975.30	0.92555
654276.78	4193975.30	1.20350	654576.78	4193975.30	1.56099
654876.78	4193975.30	2.07505	655176.78	4193975.30	4.46919
655476.78	4193975.30	8.24544	655776.78	4193975.30	5.24544
656076.78	4193975.30	2.91972	656376.78	4193975.30	1.84943
656676.78	4193975.30	1.29486	653676.78	4194275.30	0.86142
653976.78	4194275.30	1.14282	654276.78	4194275.30	1.58254
654576.78	4194275.30	2.34146	654876.78	4194275.30	3.64261
655176.78	4194275.30	8.02359	655476.78	4194275.30	18.49324
655776.78	4194275.30	5.50424	656076.78	4194275.30	2.83280
656376.78	4194275.30	1.76673	656676.78	4194275.30	1.23053
653676.78	4194575.30	0.83792	653976.78	4194575.30	1.09284
654276.78	4194575.30	1.49989	654576.78	4194575.30	2.19968
654876.78	4194575.30	3.67919	655176.78	4194575.30	3.00667
655476.78	4194575.30	2.05863	655776.78	4194575.30	2.12314
656076.78	4194575.30	1.73965	656376.78	4194575.30	1.30216
656676.78	4194575.30	0.99895	653676.78	4194875.30	0.74197
653976.78	4194875.30	0.95488	654276.78	4194875.30	1.24577
654576.78	4194875.30	1.71403	654876.78	4194875.30	1.95761
655176.78	4194875.30	1.32059	655476.78	4194875.30	1.15386
655776.78	4194875.30	1.04261	656076.78	4194875.30	0.94563
656376.78	4194875.30	0.84033	656676.78	4194875.30	0.71522
653676.78	4195175.30	0.65622	653976.78	4195175.30	0.79969
654276.78	4195175.30	1.01276	654576.78	4195175.30	1.16494
654876.78	4195175.30	1.05059	655176.78	4195175.30	0.82030
655476.78	4195175.30	0.75577	655776.78	4195175.30	0.69576
656076.78	4195175.30	0.62145	656376.78	4195175.30	0.55173

656676.78	4195175.30	0.50106	653676.78	4195475.30	0.56318
653976.78	4195475.30	0.68061	654276.78	4195475.30	0.77148
654576.78	4195475.30	0.75989	654876.78	4195475.30	0.66253
655176.78	4195475.30	0.57148	655476.78	4195475.30	0.53893
655776.78	4195475.30	0.50550	656076.78	4195475.30	0.45334
656376.78	4195475.30	0.40813	656676.78	4195475.30	0.37676

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** *** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK7 ***

INCLUDING SOURCE(S): STCK7 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.61703	656126.40	4192764.99	0.60302
656103.65	4192731.89	0.58502	656093.30	4192690.51	0.56472
656217.44	4192771.20	0.60992	656279.50	4192760.85	0.60383
656341.57	4192727.75	0.58434	656366.40	4192707.06	0.57302
653815.06	4193437.51	0.43241	653776.43	4193429.79	0.42182
653798.32	4193413.05	0.42241	653708.18	4193118.16	0.34445
653730.07	4193102.71	0.34391	653753.25	4193085.97	0.34327
653800.90	4193053.77	0.34268	653882.02	4192964.92	0.33633
653907.78	4192962.34	0.33902	653945.12	4192954.62	0.34241
654067.45	4192886.37	0.34748	654108.66	4192861.90	0.34983
654140.85	4192841.30	0.35183	654376.51	4192702.22	0.37478
654399.69	4192673.89	0.37529	654024.74	4193417.88	0.46589
653831.84	4193501.47	0.45458	653915.64	4193528.15	0.48126
653813.62	4193608.32	0.47685	653676.78	4192475.30	0.24805
653976.78	4192475.30	0.27959	654276.78	4192475.30	0.32222
654576.78	4192475.30	0.38318	654876.78	4192475.30	0.43305
655176.78	4192475.30	0.44139	655476.78	4192475.30	0.42036
655776.78	4192475.30	0.44986	656076.78	4192475.30	0.47584
656376.78	4192475.30	0.48425	656676.78	4192475.30	0.45070
653676.78	4192775.30	0.28377	653976.78	4192775.30	0.31752
654276.78	4192775.30	0.36620	654576.78	4192775.30	0.43969
654876.78	4192775.30	0.52616	655176.78	4192775.30	0.55301
655476.78	4192775.30	0.52787	655776.78	4192775.30	0.57265
656076.78	4192775.30	0.60469	656376.78	4192775.30	0.60077
656676.78	4192775.30	0.54087	653676.78	4193075.30	0.33263
653976.78	4193075.30	0.36939	654276.78	4193075.30	0.42189
654576.78	4193075.30	0.50976	654876.78	4193075.30	0.64402
655176.78	4193075.30	0.71785	655476.78	4193075.30	0.68927
655776.78	4193075.30	0.76269	656076.78	4193075.30	0.80024
656376.78	4193075.30	0.74740	656676.78	4193075.30	0.69641
653676.78	4193375.30	0.39391	653976.78	4193375.30	0.44457
654276.78	4193375.30	0.50242	654576.78	4193375.30	0.60207
654876.78	4193375.30	0.78616	655176.78	4193375.30	0.96680

655476.78	4193375.30	0.93617	655776.78	4193375.30	1.08161
656076.78	4193375.30	1.11049	656376.78	4193375.30	1.00384
656676.78	4193375.30	0.92724	653676.78	4193675.30	0.45319
653976.78	4193675.30	0.54139	654276.78	4193675.30	0.62624
654576.78	4193675.30	0.74223	654876.78	4193675.30	0.93595
655176.78	4193675.30	1.32568	655476.78	4193675.30	1.37513
655776.78	4193675.30	1.68608	656076.78	4193675.30	1.61573

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK7 ***

INCLUDING SOURCE(S): STCK7 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.45475	656676.78	4193675.30	1.22015
653676.78	4193975.30	0.53140	653976.78	4193975.30	0.63899
654276.78	4193975.30	0.78824	654576.78	4193975.30	0.96507
654876.78	4193975.30	1.19122	655176.78	4193975.30	1.86581
655476.78	4193975.30	2.34622	655776.78	4193975.30	3.09051
656076.78	4193975.30	2.74410	656376.78	4193975.30	2.08027
656676.78	4193975.30	1.51850	653676.78	4194275.30	0.62841
653976.78	4194275.30	0.78234	654276.78	4194275.30	0.99265
654576.78	4194275.30	1.29248	654876.78	4194275.30	1.71447
655176.78	4194275.30	2.33958	655476.78	4194275.30	5.15760
655776.78	4194275.30	7.98588	656076.78	4194275.30	4.45105
656376.78	4194275.30	2.55274	656676.78	4194275.30	1.66920
653676.78	4194575.30	0.71949	653976.78	4194575.30	0.92405
654276.78	4194575.30	1.23606	654576.78	4194575.30	1.74373
654876.78	4194575.30	2.64287	655176.78	4194575.30	4.22448
655476.78	4194575.30	0.01040	655776.78	4194575.30	11.54005
656076.78	4194575.30	4.42567	656376.78	4194575.30	2.44982
656676.78	4194575.30	1.58551	653676.78	4194875.30	0.69352
653976.78	4194875.30	0.89309	654276.78	4194875.30	1.17868
654576.78	4194875.30	1.64208	654876.78	4194875.30	2.46167
655176.78	4194875.30	4.19140	655476.78	4194875.30	2.19406
655776.78	4194875.30	2.06440	656076.78	4194875.30	2.00549
656376.78	4194875.30	1.59395	656676.78	4194875.30	1.19770
653676.78	4195175.30	0.64481	653976.78	4195175.30	0.79973
654276.78	4195175.30	1.01906	654576.78	4195175.30	1.34242
654876.78	4195175.30	1.84575	655176.78	4195175.30	1.79872
655476.78	4195175.30	1.22707	655776.78	4195175.30	1.11025
656076.78	4195175.30	1.00778	656376.78	4195175.30	0.89106
656676.78	4195175.30	0.79742	653676.78	4195475.30	0.57119
653976.78	4195475.30	0.68918	654276.78	4195475.30	0.84796
654576.78	4195475.30	1.06934	654876.78	4195475.30	1.14506
655176.78	4195475.30	0.96417	655476.78	4195475.30	0.79152

655776.78 4195475.30 0.73510 656076.78 4195475.30 0.66664
 656376.78 4195475.30 0.59210 656676.78 4195475.30 0.53533
 *** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
 *** AERMET - VERSION 18081 *** *** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK8 ***

INCLUDING SOURCE(S): STCK8 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.79169	656126.40	4192764.99	0.77035
656103.65	4192731.89	0.74330	656093.30	4192690.51	0.71324
656217.44	4192771.20	0.78107	656279.50	4192760.85	0.77136
656341.57	4192727.75	0.74190	656366.40	4192707.06	0.72489
653815.06	4193437.51	0.47108	653776.43	4193429.79	0.45759
653798.32	4193413.05	0.46074	653708.18	4193118.16	0.38762
653730.07	4193102.71	0.38849	653753.25	4193085.97	0.38904
653800.90	4193053.77	0.38989	653882.02	4192964.92	0.38074
653907.78	4192962.34	0.38331	653945.12	4192954.62	0.38613
654067.45	4192886.37	0.38584	654108.66	4192861.90	0.38624
654140.85	4192841.30	0.38661	654376.51	4192702.22	0.40122
654399.69	4192673.89	0.40092	654024.74	4193417.88	0.52797
653831.84	4193501.47	0.49255	653915.64	4193528.15	0.52533
653813.62	4193608.32	0.51510	653676.78	4192475.30	0.27056
653976.78	4192475.30	0.30075	654276.78	4192475.30	0.34334
654576.78	4192475.30	0.40595	654876.78	4192475.30	0.49240
655176.78	4192475.30	0.54058	655476.78	4192475.30	0.52441
655776.78	4192475.30	0.53933	656076.78	4192475.30	0.58547
656376.78	4192475.30	0.59840	656676.78	4192475.30	0.54932
653676.78	4192775.30	0.31740	653976.78	4192775.30	0.35046
654276.78	4192775.30	0.39563	654576.78	4192775.30	0.46802
654876.78	4192775.30	0.58469	655176.78	4192775.30	0.69006
655476.78	4192775.30	0.68002	655776.78	4192775.30	0.70929
656076.78	4192775.30	0.77210	656376.78	4192775.30	0.76511
656676.78	4192775.30	0.68844	653676.78	4193075.30	0.37442
653976.78	4193075.30	0.42159	654276.78	4193075.30	0.47168
654576.78	4193075.30	0.55176	654876.78	4193075.30	0.69813
655176.78	4193075.30	0.90507	655476.78	4193075.30	0.92741
655776.78	4193075.30	0.99269	656076.78	4193075.30	1.07762
656376.78	4193075.30	0.99705	656676.78	4193075.30	0.93336
653676.78	4193375.30	0.42505	653976.78	4193375.30	0.50316
654276.78	4193375.30	0.58740	654576.78	4193375.30	0.68281
654876.78	4193375.30	0.84741	655176.78	4193375.30	1.18935
655476.78	4193375.30	1.33496	655776.78	4193375.30	1.52732
656076.78	4193375.30	1.61648	656376.78	4193375.30	1.46552
656676.78	4193375.30	1.27252	653676.78	4193675.30	0.49294
653976.78	4193675.30	0.59087	654276.78	4193675.30	0.71050

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654576.78 4193675.30 0.89345      654876.78 4193675.30 1.05898
655176.78 4193675.30 1.47693      655476.78 4193675.30 2.14671
655776.78 4193675.30 2.76668      656076.78 4193675.30 2.74208
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56
                                     PAGE 219
*** MODELOPTs:  RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD ( 43824 HRS) AVERAGE CONCENTRATION  VALUES FOR SOURCE GROUP:
STCK8 ***
      INCLUDING SOURCE(S):  STCK8  ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER  IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M)  CONC          X-COORD (M) Y-COORD (M)  CONC
-----
656376.78 4193675.30 2.23751      656676.78 4193675.30 1.66756
653676.78 4193975.30 0.57786      653976.78 4193975.30 0.71013
654276.78 4193975.30 0.89314      654576.78 4193975.30 1.12705
654876.78 4193975.30 1.47830      655176.78 4193975.30 1.96636
655476.78 4193975.30 4.13106      655776.78 4193975.30 7.46920
656076.78 4193975.30 5.31063      656376.78 4193975.30 3.00728
656676.78 4193975.30 1.90859      653676.78 4194275.30 0.66097
653976.78 4194275.30 0.83967      654276.78 4194275.30 1.09871
654576.78 4194275.30 1.50510      654876.78 4194275.30 2.17448
655176.78 4194275.30 3.31352      655476.78 4194275.30 5.70532
655776.78 4194275.30 23.53470      656076.78 4194275.30 6.06521
656376.78 4194275.30 2.99551      656676.78 4194275.30 1.84835
653676.78 4194575.30 0.66126      653976.78 4194575.30 0.82890
654276.78 4194575.30 1.07659      654576.78 4194575.30 1.46820
654876.78 4194575.30 2.14097      655176.78 4194575.30 3.55561
655476.78 4194575.30 3.72678      655776.78 4194575.30 2.14487
656076.78 4194575.30 2.28625      656376.78 4194575.30 1.84838
656676.78 4194575.30 1.37208      653676.78 4194875.30 0.59474
653976.78 4194875.30 0.74802      654276.78 4194875.30 0.94652
654576.78 4194875.30 1.23524      654876.78 4194875.30 1.69332
655176.78 4194875.30 2.06231      655476.78 4194875.30 1.40888
655776.78 4194875.30 1.19300      656076.78 4194875.30 1.08154
656376.78 4194875.30 0.98781      656676.78 4194875.30 0.87007
653676.78 4195175.30 0.54287      653976.78 4195175.30 0.65229
654276.78 4195175.30 0.79620      654576.78 4195175.30 1.00794
654876.78 4195175.30 1.19582      655176.78 4195175.30 1.10240
655476.78 4195175.30 0.84847      655776.78 4195175.30 0.77728
656076.78 4195175.30 0.71872      656376.78 4195175.30 0.63121
656676.78 4195175.30 0.57389      653676.78 4195475.30 0.47804
653976.78 4195475.30 0.56143      654276.78 4195475.30 0.67832
654576.78 4195475.30 0.78344      654876.78 4195475.30 0.78293
655176.78 4195475.30 0.69020      655476.78 4195475.30 0.58569
655776.78 4195475.30 0.55377      656076.78 4195475.30 0.51937
656376.78 4195475.30 0.46346      656676.78 4195475.30 0.42223
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK9 ***

INCLUDING SOURCE(S): STCK9 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.82419	656126.40	4192764.99	0.78840
656103.65	4192731.89	0.75459	656093.30	4192690.51	0.72156
656217.44	4192771.20	0.83166	656279.50	4192760.85	0.84528
656341.57	4192727.75	0.83358	656366.40	4192707.06	0.82139
653815.06	4193437.51	0.40672	653776.43	4193429.79	0.39629
653798.32	4193413.05	0.39784	653708.18	4193118.16	0.33660
653730.07	4193102.71	0.33833	653753.25	4193085.97	0.34014
653800.90	4193053.77	0.34429	653882.02	4192964.92	0.34643
653907.78	4192962.34	0.35002	653945.12	4192954.62	0.35468
654067.45	4192886.37	0.36132	654108.66	4192861.90	0.36232
654140.85	4192841.30	0.36251	654376.51	4192702.22	0.36129
654399.69	4192673.89	0.35835	654024.74	4193417.88	0.44814
653831.84	4193501.47	0.42544	653915.64	4193528.15	0.45114
653813.62	4193608.32	0.44290	653676.78	4192475.30	0.25819
653976.78	4192475.30	0.28139	654276.78	4192475.30	0.30880
654576.78	4192475.30	0.34617	654876.78	4192475.30	0.40356
655176.78	4192475.30	0.49105	655476.78	4192475.30	0.58711
655776.78	4192475.30	0.60317	656076.78	4192475.30	0.58750
656376.78	4192475.30	0.65377	656676.78	4192475.30	0.67881
653676.78	4192775.30	0.29433	653976.78	4192775.30	0.33045
654276.78	4192775.30	0.36519	654576.78	4192775.30	0.40631
654876.78	4192775.30	0.46906	655176.78	4192775.30	0.57437
655476.78	4192775.30	0.73327	655776.78	4192775.30	0.79393
656076.78	4192775.30	0.77948	656376.78	4192775.30	0.88714
656676.78	4192775.30	0.90169	653676.78	4193075.30	0.32670
653976.78	4193075.30	0.37741	654276.78	4193075.30	0.43522
654576.78	4193075.30	0.49758	654876.78	4193075.30	0.56910
655176.78	4193075.30	0.68635	655476.78	4193075.30	0.91580
655776.78	4193075.30	1.10730	656076.78	4193075.30	1.10022
656376.78	4193075.30	1.27827	656676.78	4193075.30	1.23160
653676.78	4193375.30	0.36959	653976.78	4193375.30	0.42810
654276.78	4193375.30	0.50218	654576.78	4193375.30	0.60520
654876.78	4193375.30	0.72908	655176.78	4193375.30	0.85878
655476.78	4193375.30	1.11664	655776.78	4193375.30	1.66000
656076.78	4193375.30	1.76016	656376.78	4193375.30	2.09645
656676.78	4193375.30	1.91248	653676.78	4193675.30	0.42135
653976.78	4193675.30	0.50116	654276.78	4193675.30	0.59444
654576.78	4193675.30	0.73170	654876.78	4193675.30	0.88731
655176.78	4193675.30	1.12421	655476.78	4193675.30	1.42687
655776.78	4193675.30	2.51919	656076.78	4193675.30	3.48581

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK9 ***
INCLUDING SOURCE(S): STCK9 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	4.13679	656676.78	4193675.30	3.12474
653676.78	4193975.30	0.47510	653976.78	4193975.30	0.57434
654276.78	4193975.30	0.70865	654576.78	4193975.30	0.88201
654876.78	4193975.30	1.14335	655176.78	4193975.30	1.53942
655476.78	4193975.30	2.16533	655776.78	4193975.30	2.96689
656076.78	4193975.30	16.44802	656376.78	4193975.30	9.03171
656676.78	4193975.30	3.99978	653676.78	4194275.30	0.51166
653976.78	4194275.30	0.62648	654276.78	4194275.30	0.78321
654576.78	4194275.30	1.01127	654876.78	4194275.30	1.35785
655176.78	4194275.30	1.94551	655476.78	4194275.30	3.06523
655776.78	4194275.30	6.44997	656076.78	4194275.30	4.13669
656376.78	4194275.30	5.02232	656676.78	4194275.30	3.06002
653676.78	4194575.30	0.48255	653976.78	4194575.30	0.58106
654276.78	4194575.30	0.71845	654576.78	4194575.30	0.91603
654876.78	4194575.30	1.20636	655176.78	4194575.30	1.66100
655476.78	4194575.30	2.48704	655776.78	4194575.30	2.71900
656076.78	4194575.30	1.57948	656376.78	4194575.30	1.51274
656676.78	4194575.30	1.40289	653676.78	4194875.30	0.44421
653976.78	4194875.30	0.53671	654276.78	4194875.30	0.64841
654576.78	4194875.30	0.79923	654876.78	4194875.30	1.00502
655176.78	4194875.30	1.32036	655476.78	4194875.30	1.53607
655776.78	4194875.30	1.21384	656076.78	4194875.30	0.97462
656376.78	4194875.30	0.90574	656676.78	4194875.30	0.81232
653676.78	4195175.30	0.41044	653976.78	4195175.30	0.47922
654276.78	4195175.30	0.56628	654576.78	4195175.30	0.67764
654876.78	4195175.30	0.83733	655176.78	4195175.30	0.95993
655476.78	4195175.30	0.91400	655776.78	4195175.30	0.73555
656076.78	4195175.30	0.66675	656376.78	4195175.30	0.62640
656676.78	4195175.30	0.56839	653676.78	4195475.30	0.37003
653976.78	4195475.30	0.42402	654276.78	4195475.30	0.49232
654576.78	4195475.30	0.58521	654876.78	4195475.30	0.66165
655176.78	4195475.30	0.66180	655476.78	4195475.30	0.60490
655776.78	4195475.30	0.51480	656076.78	4195475.30	0.48793
656376.78	4195475.30	0.45662	656676.78	4195475.30	0.42941

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE1 ***

INCLUDING SOURCE(S): L0008807 , L0008808 , L0008809 , L0008810 , L0008811 ,
L0008812 , L0008813 , L0008814 , L0008815 , L0008816 , L0008817 , L0008818 , L0008819 ,
L0008820 , L0008821 , L0008822 , L0008823 , L0008824 , L0008825 , L0008826 , L0008827 ,
L0008828 , L0008829 , L0008830 , L0008831 , L0008832 , L0008833 , L0008834 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)						

656165.71	4192787.75	27.42764	(15041307)	656126.40	4192764.99	27.41572 (15041307)
656103.65	4192731.89	27.39618	(15041307)	656093.30	4192690.51	27.36277 (15041307)
656217.44	4192771.20	27.37036	(15041307)	656279.50	4192760.85	27.30220 (15041307)
656341.57	4192727.75	27.18999	(15041307)	656366.40	4192707.06	27.09544 (15041307)
653815.06	4193437.51	54.00700	(14011709)	653776.43	4193429.79	53.82415 (14011709)
653798.32	4193413.05	52.56880	(14011709)	653708.18	4193118.16	33.22247 (17021420)
653730.07	4193102.71	32.46048	(17021420)	653753.25	4193085.97	31.74714 (17121504)
653800.90	4193053.77	30.84340	(17121504)	653882.02	4192964.92	28.07137 (17121504)
653907.78	4192962.34	27.84545	(17121504)	653945.12	4192954.62	27.33339 (17121504)
654067.45	4192886.37	25.53432	(14120904)	654108.66	4192861.90	25.04402 (14120904)
654140.85	4192841.30	24.59620	(14120904)	654376.51	4192702.22	22.35688 (16010309)
654399.69	4192673.89	22.01005	(16010309)	654024.74	4193417.88	50.94131 (17021308)
653831.84	4193501.47	58.90694	(17021308)	653915.64	4193528.15	61.43646 (17021308)
653813.62	4193608.32	69.23221	(17121823)	653676.78	4192475.30	19.76421 (15010804)
653976.78	4192475.30	19.49368	(16010309)	654276.78	4192475.30	19.68444 (16010309)
654576.78	4192475.30	21.12336	(17011609)	654876.78	4192475.30	27.09407 (15041307)
655176.78	4192475.30	27.35727	(15041307)	655476.78	4192475.30	27.32922 (15041307)
655776.78	4192475.30	27.25543	(15041307)	656076.78	4192475.30	27.01748 (15041307)
656376.78	4192475.30	26.60221	(15041307)	656676.78	4192475.30	21.50242 (15030608)
653676.78	4192775.30	23.87579	(17120517)	653976.78	4192775.30	23.65072 (14120904)
654276.78	4192775.30	23.26152	(16010309)	654576.78	4192775.30	24.96705 (17011609)
654876.78	4192775.30	27.96721	(15041307)	655176.78	4192775.30	28.08426 (15041307)
655476.78	4192775.30	28.06863	(15041307)	655776.78	4192775.30	27.83688 (15041307)
656076.78	4192775.30	27.44294	(15041307)	656376.78	4192775.30	27.17691 (15041307)
656676.78	4192775.30	22.36867	(17022501)	653676.78	4193075.30	31.61526 (17021420)
653976.78	4193075.30	31.13175	(17121504)	654276.78	4193075.30	29.44978 (14120904)
654576.78	4193075.30	30.84420	(17011609)	654876.78	4193075.30	31.40489 (17011609)
655176.78	4193075.30	31.69461	(17011609)	655476.78	4193075.30	31.67402 (17011609)
655776.78	4193075.30	31.30853	(17011609)	656076.78	4193075.30	30.50522 (17011609)
656376.78	4193075.30	32.99037	(17011509)	656676.78	4193075.30	34.07280 (17011509)
653676.78	4193375.30	52.00822	(14011709)	653976.78	4193375.30	47.54874 (17021308)
654276.78	4193375.30	43.80397	(17021308)	654576.78	4193375.30	41.97582 (17121504)
654876.78	4193375.30	42.29152	(17011609)	655176.78	4193375.30	42.80132 (17011609)
655476.78	4193375.30	42.43606	(17011609)	655776.78	4193375.30	45.65719 (17011509)
656076.78	4193375.30	47.19818	(17011509)	656376.78	4193375.30	46.28872 (17011509)
656676.78	4193375.30	45.00550	(17011509)	653676.78	4193675.30	79.97415 (17011605)
653976.78	4193675.30	80.85860	(17013006)	654276.78	4193675.30	81.51559 (17021308)
654576.78	4193675.30	82.82721	(17021308)	654876.78	4193675.30	81.13380 (17021308)
655176.78	4193675.30	75.74255	(17011509)	655476.78	4193675.30	77.84876 (17011509)
655776.78	4193675.30	76.91553	(17011509)	656076.78	4193675.30	75.23063 (17011509)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE1 ***

INCLUDING SOURCE(S): L0008807 , L0008808 , L0008809 , L0008810 , L0008811 ,
L0008812 , L0008813 , L0008814 , L0008815 , L0008816 , L0008817 , L0008818 , L0008819 ,
L0008820 , L0008821 , L0008822 , L0008823 , L0008824 , L0008825 , L0008826 , L0008827 ,
L0008828 , L0008829 , L0008830 , L0008831 , L0008832 , L0008833 , L0008834 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656376.78	4193675.30	72.37861 (17011509)	656676.78	4193675.30	68.50140 (17011509)
653676.78	4193975.30	118.64327 (17011505)	653976.78	4193975.30	172.58639 (17011505)
654276.78	4193975.30	319.86587 (17011505)	654576.78	4193975.30	566.39950 (17121203)
654876.78	4193975.30	637.63312 (17011505)	655176.78	4193975.30	674.90963 (17011505)
655476.78	4193975.30	557.61324 (17121420)	655776.78	4193975.30	462.41826 (17121420)
656076.78	4193975.30	412.24169 (17122621)	656376.78	4193975.30	370.89044 (17122621)
656676.78	4193975.30	221.13993 (17122621)	653676.78	4194275.30	68.67562 (17122608)
653976.78	4194275.30	74.44385 (17122608)	654276.78	4194275.30	75.10314 (17122608)
654576.78	4194275.30	75.09896 (17122608)	654876.78	4194275.30	75.29068 (17011201)
655176.78	4194275.30	73.48689 (17120706)	655476.78	4194275.30	71.80612 (17121402)
655776.78	4194275.30	70.27493 (14011317)	656076.78	4194275.30	73.50855 (14011317)
656376.78	4194275.30	73.21310 (14011317)	656676.78	4194275.30	70.82494 (14011317)
653676.78	4194575.30	58.47501 (16012009)	653976.78	4194575.30	56.21571 (16012009)
654276.78	4194575.30	51.33609 (16012009)	654576.78	4194575.30	42.61779 (17020404)
654876.78	4194575.30	40.71542 (17121402)	655176.78	4194575.30	39.06513 (17022508)
655476.78	4194575.30	39.52671 (17022508)	655776.78	4194575.30	39.54414 (17022508)
656076.78	4194575.30	38.93253 (17022508)	656376.78	4194575.30	37.91719 (17022508)
656676.78	4194575.30	38.98804 (14011317)	653676.78	4194875.30	36.88818 (16012009)
653976.78	4194875.30	30.01602 (17121402)	654276.78	4194875.30	27.63888 (17121402)
654576.78	4194875.30	26.42486 (17012717)	654876.78	4194875.30	27.23250 (17012717)
655176.78	4194875.30	28.67376 (17022508)	655476.78	4194875.30	28.93604 (17022508)
655776.78	4194875.30	28.92198 (17022508)	656076.78	4194875.30	28.60177 (17022508)
656376.78	4194875.30	28.28086 (13121109)	656676.78	4194875.30	28.45181 (13103008)
653676.78	4195175.30	21.02364 (17122402)	653976.78	4195175.30	23.95407 (13011909)
654276.78	4195175.30	24.25545 (13011909)	654576.78	4195175.30	24.39566 (13011909)
654876.78	4195175.30	24.47672 (13011909)	655176.78	4195175.30	24.43010 (13011909)
655476.78	4195175.30	23.06596 (17022508)	655776.78	4195175.30	23.05964 (17022508)
656076.78	4195175.30	23.31216 (13121109)	656376.78	4195175.30	27.05632 (13121109)
656676.78	4195175.30	27.40426 (13121109)	653676.78	4195475.30	22.19921 (13011909)
653976.78	4195475.30	23.67326 (13011909)	654276.78	4195475.30	23.78406 (13011909)
654576.78	4195475.30	23.83024 (13011909)	654876.78	4195475.30	23.85464 (13011909)
655176.78	4195475.30	22.94231 (13011909)	655476.78	4195475.30	19.26878 (17022508)
655776.78	4195475.30	19.31344 (17022508)	656076.78	4195475.30	19.22455 (17022508)
656376.78	4195475.30	20.59875 (13121109)	656676.78	4195475.30	25.70837 (13121109)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE10 ***

INCLUDING SOURCE(S): L0011802 , L0011803 , L0011804 , L0011805 , L0011806 ,
L0011807 , L0011808 , L0011809 , L0011810 , L0011811 , L0011812 , L0011813 , L0011814 ,
L0011815 , L0011816 , L0011817 , L0011818 , L0011819 , L0011820 , L0011821 , L0011822 ,
L0011823 , L0011824 , L0011825 , L0011826 , L0011827 , L0011828 , L0011829 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
-------------	-------------	------	------------	-------------	-------------	------

656165.71	4192787.75	136.34581	(17012903)	656126.40	4192764.99	146.31352 (17012903)
656103.65	4192731.89	142.64243	(17122920)	656093.30	4192690.51	143.70208 (17122920)
656217.44	4192771.20	143.63660	(17020801)	656279.50	4192760.85	130.77976 (17020801)
656341.57	4192727.75	112.86104	(17011208)	656366.40	4192707.06	111.61098 (17120120)
653815.06	4193437.51	100.32956	(14011709)	653776.43	4193429.79	97.57684 (14011709)
653798.32	4193413.05	102.79898	(14011709)	653708.18	4193118.16	77.99787 (17021420)
653730.07	4193102.71	78.73861	(17021420)	653753.25	4193085.97	78.99612 (17123002)
653800.90	4193053.77	80.29075	(17013106)	653882.02	4192964.92	83.45029 (17120517)
653907.78	4192962.34	84.41452	(17120517)	653945.12	4192954.62	83.22120 (17120517)
654067.45	4192886.37	83.30914	(13012121)	654108.66	4192861.90	85.72310 (13012105)
654140.85	4192841.30	86.45164	(13010908)	654376.51	4192702.22	92.54192 (16020321)
654399.69	4192673.89	92.32975	(15021803)	654024.74	4193417.88	107.40233 (14011709)
653831.84	4193501.47	91.77861	(17012823)	653915.64	4193528.15	98.13814 (17012823)
653813.62	4193608.32	87.97884	(17022506)	653676.78	4192475.30	57.86217 (13010908)
653976.78	4192475.30	67.15152	(15010508)	654276.78	4192475.30	77.30805 (14022101)
654576.78	4192475.30	89.62804	(14021122)	654876.78	4192475.30	121.50775 (14011509)
655176.78	4192475.30	110.50185	(14120620)	655476.78	4192475.30	114.93262 (17012904)
655776.78	4192475.30	150.68213	(15041307)	656076.78	4192475.30	118.20900 (17012804)
656376.78	4192475.30	104.66384	(17020801)	656676.78	4192475.30	83.02976 (17011508)
653676.78	4192775.30	65.21609	(14021108)	653976.78	4192775.30	76.65742 (13012105)
654276.78	4192775.30	91.03507	(14021223)	654576.78	4192775.30	107.22976 (15122802)
654876.78	4192775.30	127.70941	(17121508)	655176.78	4192775.30	145.77900 (13012005)
655476.78	4192775.30	161.88756	(17122820)	655776.78	4192775.30	168.76356 (17122917)
656076.78	4192775.30	153.00044	(17122920)	656376.78	4192775.30	125.21299 (17120120)
656676.78	4192775.30	106.79347	(15030608)	653676.78	4193075.30	75.48922 (17021420)
653976.78	4193075.30	91.44674	(17121504)	654276.78	4193075.30	104.67999 (17123107)
654576.78	4193075.30	133.13031	(13021704)	654876.78	4193075.30	162.98168 (15122802)
655176.78	4193075.30	219.85844	(17123007)	655476.78	4193075.30	247.54658 (17011609)
655776.78	4193075.30	253.38954	(17013024)	656076.78	4193075.30	207.26744 (17020801)
656376.78	4193075.30	148.31344	(17012908)	656676.78	4193075.30	117.94761 (17121219)
653676.78	4193375.30	98.45704	(14011709)	653976.78	4193375.30	102.47867 (17021308)
654276.78	4193375.30	128.03617	(17120203)	654576.78	4193375.30	170.34835 (17120517)
654876.78	4193375.30	225.28073	(14120608)	655176.78	4193375.30	325.04085 (13012423)
655476.78	4193375.30	468.90061	(17011609)	655776.78	4193375.30	429.86322 (17122620)
656076.78	4193375.30	280.31823	(17012908)	656376.78	4193375.30	195.88802 (17121320)
656676.78	4193375.30	110.78087	(17011509)	653676.78	4193675.30	81.46758 (17122902)
653976.78	4193675.30	106.77531	(17022506)	654276.78	4193675.30	137.67721 (17013105)

654576.78 4193675.30 192.68625 (17121207) 654876.78 4193675.30 305.62279 (17021308)
655176.78 4193675.30 487.84087 (17021403) 655476.78 4193675.30 1064.03805 (14021105)
655776.78 4193675.30 777.17382 (17012908) 656076.78 4193675.30 350.24013 (17011509)
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977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE10 ***

INCLUDING SOURCE(S): L0011802 , L0011803 , L0011804 , L0011805 , L0011806 ,
L0011807 , L0011808 , L0011809 , L0011810 , L0011811 , L0011812 , L0011813 , L0011814 ,
L0011815 , L0011816 , L0011817 , L0011818 , L0011819 , L0011820 , L0011821 , L0011822 ,
L0011823 , L0011824 , L0011825 , L0011826 , L0011827 , L0011828 , L0011829 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M) Y-COORD (M) CONC
(YYMMDDHH)

656376.78	4193675.30	176.50549 (17011303)	656676.78	4193675.30	125.80313 (17121319)
653676.78	4193975.30	84.45279 (17120922)	653976.78	4193975.30	107.62281 (17120922)
654276.78	4193975.30	143.01939 (17013107)	654576.78	4193975.30	205.00510 (17013107)
654876.78	4193975.30	320.64424 (17013107)	655176.78	4193975.30	621.86364 (17121322)
655476.78	4193975.30	1905.57667 (17122609)	655776.78	4193975.30	911.86630 (13032807)
656076.78	4193975.30	370.27857 (14022208)	656376.78	4193975.30	214.54217 (14022208)
656676.78	4193975.30	141.10373 (14022208)	653676.78	4194275.30	78.70276 (17120702)
653976.78	4194275.30	93.80219 (17122608)	654276.78	4194275.30	131.13460 (17123105)
654576.78	4194275.30	188.31774 (17120707)	654876.78	4194275.30	263.25097 (17121402)
655176.78	4194275.30	356.74309 (17123024)	655476.78	4194275.30	661.87032 (17012717)
655776.78	4194275.30	574.79184 (17021405)	656076.78	4194275.30	317.41521 (17121119)
656376.78	4194275.30	182.79290 (13020908)	656676.78	4194275.30	128.32068 (15010317)
653676.78	4194575.30	105.36870 (16012009)	653976.78	4194575.30	100.15153 (17121007)
654276.78	4194575.30	114.96216 (17120905)	654576.78	4194575.30	121.84429 (17120624)
654876.78	4194575.30	153.99901 (14121304)	655176.78	4194575.30	220.92080 (17122724)
655476.78	4194575.30	305.83046 (17020802)	655776.78	4194575.30	281.63229 (17022508)
656076.78	4194575.30	227.32645 (17012601)	656376.78	4194575.30	148.20442 (17120122)
656676.78	4194575.30	110.72804 (14012706)	653676.78	4194875.30	68.16919 (17120905)
653976.78	4194875.30	72.72271 (17043004)	654276.78	4194875.30	77.16828 (17120208)
654576.78	4194875.30	93.80114 (14121304)	654876.78	4194875.30	135.60099 (13011909)
655176.78	4194875.30	164.33779 (17120219)	655476.78	4194875.30	182.71468 (17120618)
655776.78	4194875.30	182.48682 (17120207)	656076.78	4194875.30	152.24564 (17121904)
656376.78	4194875.30	127.16620 (17122321)	656676.78	4194875.30	107.64893 (13121109)
653676.78	4195175.30	49.62451 (17120624)	653976.78	4195175.30	54.61240 (15022507)
654276.78	4195175.30	65.35387 (17123021)	654576.78	4195175.30	79.78957 (17123104)
654876.78	4195175.30	95.68973 (17022607)	655176.78	4195175.30	100.37852 (15021408)
655476.78	4195175.30	117.11686 (17121308)	655776.78	4195175.30	119.12721 (17012905)
656076.78	4195175.30	112.81175 (17022508)	656376.78	4195175.30	95.46505 (17022324)
656676.78	4195175.30	87.63022 (17122321)	653676.78	4195475.30	40.98988 (14042106)
653976.78	4195475.30	48.97504 (17123021)	654276.78	4195475.30	59.47503 (17020506)
654576.78	4195475.30	99.54028 (13011909)	654876.78	4195475.30	82.06263 (17120619)
655176.78	4195475.30	81.05055 (17012717)	655476.78	4195475.30	88.77452 (14012009)

655776.78 4195475.30 81.35968 (16010408) 656076.78 4195475.30 79.87075 (17022508)
656376.78 4195475.30 79.09237 (17121904) 656676.78 4195475.30 69.06487 (17022706)
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE11 ***
INCLUDING SOURCE(S): L0011857 , L0011858 , L0011859 , L0011860 , L0011861 ,
L0011862 , L0011863 , L0011864 , L0011865 , L0011866 , L0011867 , L0011868 , L0011869 ,
L0011870 , L0011871 , L0011872 , L0011873 , L0011874 , L0011875 , L0011876 , L0011877 ,
L0011878 , L0011879 , L0011880 , L0011881 , L0011882 , L0011883 , L0011884 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	110.12974 (17012908)	656126.40	4192764.99	105.57019 (17011508)
656103.65	4192731.89	108.96454 (17011508)	656093.30	4192690.51	105.08918 (17120120)
656217.44	4192771.20	108.56746 (17012908)	656279.50	4192760.85	101.97857 (15030608)
656341.57	4192727.75	104.72552 (15030608)	656366.40	4192707.06	103.89313 (15030608)
653815.06	4193437.51	127.22423 (17021308)	653776.43	4193429.79	122.25726 (17021308)
653798.32	4193413.05	123.80148 (17021308)	653708.18	4193118.16	99.38820 (17121504)
653730.07	4193102.71	102.55221 (17120517)	653753.25	4193085.97	102.72346 (17120517)
653800.90	4193053.77	97.78020 (15010907)	653882.02	4192964.92	100.13459 (13010908)
653907.78	4192962.34	101.91902 (13010908)	653945.12	4192954.62	103.19322 (14120608)
654067.45	4192886.37	108.75019 (15010508)	654108.66	4192861.90	109.24952 (17122821)
654140.85	4192841.30	110.18014 (16020321)	654376.51	4192702.22	113.19123 (14021122)
654399.69	4192673.89	114.07490 (13123108)	654024.74	4193417.88	149.09236 (17021420)
653831.84	4193501.47	126.70261 (17123023)	653915.64	4193528.15	138.14217 (17123023)
653813.62	4193608.32	125.79120 (17012823)	653676.78	4192475.30	70.78125 (13013108)
653976.78	4192475.30	79.72268 (15122802)	654276.78	4192475.30	93.17643 (13123108)
654576.78	4192475.30	107.59469 (17122918)	654876.78	4192475.30	113.57699 (14012501)
655176.78	4192475.30	143.42231 (17123009)	655476.78	4192475.30	111.45358 (17011203)
655776.78	4192475.30	116.34872 (17122518)	656076.78	4192475.30	94.05764 (17020801)
656376.78	4192475.30	74.62664 (17011508)	656676.78	4192475.30	88.81146 (15030608)
653676.78	4192775.30	80.15320 (13010908)	653976.78	4192775.30	96.79141 (13013108)
654276.78	4192775.30	107.62010 (16022407)	654576.78	4192775.30	135.36007 (14011509)
654876.78	4192775.30	153.44323 (17011302)	655176.78	4192775.30	197.08086 (17123009)
655476.78	4192775.30	167.19002 (17013024)	655776.78	4192775.30	139.08549 (17012903)
656076.78	4192775.30	114.30401 (17011508)	656376.78	4192775.30	103.27751 (15030608)
656676.78	4192775.30	78.06909 (17122320)	653676.78	4193075.30	97.58387 (17120517)
653976.78	4193075.30	112.70351 (13012105)	654276.78	4193075.30	143.81558 (13013108)
654576.78	4193075.30	182.92619 (13012423)	654876.78	4193075.30	219.75018 (14021105)
655176.78	4193075.30	297.11653 (17123009)	655476.78	4193075.30	244.93026 (17012804)
655776.78	4193075.30	189.58328 (17120120)	656076.78	4193075.30	125.94995 (17013019)
656376.78	4193075.30	115.92796 (17121219)	656676.78	4193075.30	100.63339 (17011509)
653676.78	4193375.30	111.14128 (17021308)	653976.78	4193375.30	138.31397 (17021420)
654276.78	4193375.30	180.00733 (17120517)	654576.78	4193375.30	250.35675 (15010508)
654876.78	4193375.30	354.12790 (15022608)	655176.78	4193375.30	532.27051 (17123009)

655476.78 4193375.30 383.68381 (17020801) 655776.78 4193375.30 219.62792 (17013019)
656076.78 4193375.30 203.56204 (17011509) 656376.78 4193375.30 107.58470 (17122619)
656676.78 4193375.30 81.61799 (17020824) 653676.78 4193675.30 114.42339 (17022506)
653976.78 4193675.30 153.67970 (17013105) 654276.78 4193675.30 215.56943 (17121207)
654576.78 4193675.30 349.65670 (17120203) 654876.78 4193675.30 625.65879 (13010906)
655176.78 4193675.30 1450.92878 (17123009) 655476.78 4193675.30 637.72428 (17122320)
655776.78 4193675.30 271.65805 (17122619) 656076.78 4193675.30 162.51430 (17011303)
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE11 ***

INCLUDING SOURCE(S): L0011857 , L0011858 , L0011859 , L0011860 , L0011861 ,
L0011862 , L0011863 , L0011864 , L0011865 , L0011866 , L0011867 , L0011868 , L0011869 ,
L0011870 , L0011871 , L0011872 , L0011873 , L0011874 , L0011875 , L0011876 , L0011877 ,
L0011878 , L0011879 , L0011880 , L0011881 , L0011882 , L0011883 , L0011884 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M) Y-COORD (M) CONC
(YYMMDDHH)

656376.78	4193675.30	112.51976 (17121319)	656676.78	4193675.30	84.84361 (17122519)
653676.78	4193975.30	116.92418 (17120922)	653976.78	4193975.30	159.47245 (17013107)
654276.78	4193975.30	234.69239 (17013107)	654576.78	4193975.30	380.72325 (17122903)
654876.78	4193975.30	818.52941 (17121322)	655176.78	4193975.30	6964.76328 (17120206)
655476.78	4193975.30	669.87586 (14021120)	655776.78	4193975.30	313.38851 (14022208)
656076.78	4193975.30	189.82143 (14022208)	656376.78	4193975.30	128.19628 (14022208)
656676.78	4193975.30	93.09512 (14022208)	653676.78	4194275.30	105.82100 (17122608)
653976.78	4194275.30	140.82270 (17011201)	654276.78	4194275.30	213.47640 (17122805)
654576.78	4194275.30	289.32834 (17043004)	654876.78	4194275.30	444.09741 (17122909)
655176.78	4194275.30	761.31515 (17122408)	655476.78	4194275.30	486.69863 (17122321)
655776.78	4194275.30	253.49605 (14012706)	656076.78	4194275.30	164.78474 (14011317)
656376.78	4194275.30	116.05038 (13020204)	656676.78	4194275.30	86.28483 (13032807)
653676.78	4194575.30	105.46514 (17020404)	653976.78	4194575.30	118.99705 (17043004)
654276.78	4194575.30	127.53880 (17120208)	654576.78	4194575.30	177.47186 (17122909)
654876.78	4194575.30	263.92696 (17120619)	655176.78	4194575.30	327.72364 (17122408)
655476.78	4194575.30	254.79748 (17122223)	655776.78	4194575.30	205.79281 (17122321)
656076.78	4194575.30	148.61124 (17123020)	656376.78	4194575.30	103.42268 (17120617)
656676.78	4194575.30	80.06814 (13020908)	653676.78	4194875.30	68.72655 (17120624)
653976.78	4194875.30	80.18815 (15022507)	654276.78	4194875.30	102.43988 (17020406)
654576.78	4194875.30	144.05245 (13011909)	654876.78	4194875.30	146.16942 (17120705)
655176.78	4194875.30	194.56875 (17122408)	655476.78	4194875.30	164.30547 (17121401)
655776.78	4194875.30	146.36490 (17021405)	656076.78	4194875.30	116.54140 (17122321)
656376.78	4194875.30	90.96601 (13121109)	656676.78	4194875.30	95.83116 (13103008)
653676.78	4195175.30	57.83845 (17121324)	653976.78	4195175.30	69.91275 (17020406)
654276.78	4195175.30	111.52015 (13011909)	654576.78	4195175.30	103.44505 (17022607)
654876.78	4195175.30	113.38876 (17012717)	655176.78	4195175.30	133.26238 (17122408)
655476.78	4195175.30	119.20480 (17120207)	655776.78	4195175.30	101.59251 (17122223)
656076.78	4195175.30	93.25592 (17022706)	656376.78	4195175.30	79.53024 (17022408)

656676.78	4195175.30	85.58944	(13121109)	653676.78	4195475.30	51.58666	(17020406)
653976.78	4195475.30	70.67667	(13011909)	654276.78	4195475.30	77.40839	(13011909)
654576.78	4195475.30	78.99846	(17120219)	654876.78	4195475.30	87.39991	(17122622)
655176.78	4195475.30	98.89089	(17122408)	655476.78	4195475.30	92.26775	(17120207)
655776.78	4195475.30	87.49046	(17022508)	656076.78	4195475.30	78.39592	(17021405)
656376.78	4195475.30	70.67339	(17012601)	656676.78	4195475.30	65.44017	(13121809)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE12 ***

INCLUDING SOURCE(S): L0011908 , L0011909 , L0011910 , L0011911 , L0011912 ,
L0011913 , L0011914 , L0011915 , L0011916 , L0011917 , L0011918 , L0011919 , L0011920 ,
L0011921 , L0011922 , L0011923 , L0011924 , L0011925 , L0011926 , L0011927 , L0011928 ,
L0011929 , L0011930 , L0011931 , L0011932 , L0011933 , L0011934 , L0011935 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
656165.71	4192787.75	72.35809	(14102408)	656126.40	4192764.99	65.19879	(14102408)
656103.65	4192731.89	60.85956	(17121320)	656093.30	4192690.51	62.41758	(17121219)
656217.44	4192771.20	72.61887	(14102408)	656279.50	4192760.85	72.21204	(14102408)
656341.57	4192727.75	70.69128	(14102408)	656366.40	4192707.06	70.11923	(14102408)
653815.06	4193437.51	127.33289	(13020205)	653776.43	4193429.79	124.73609	(16010309)
653798.32	4193413.05	123.71580	(13020205)	653708.18	4193118.16	95.00649	(14021408)
653730.07	4193102.71	94.63830	(14021408)	653753.25	4193085.97	95.09003	(13011517)
653800.90	4193053.77	94.23012	(17123007)	653882.02	4192964.92	88.97655	(14021105)
653907.78	4192962.34	89.19173	(13012120)	653945.12	4192954.62	91.72110	(17011609)
654067.45	4192886.37	104.98927	(17011609)	654108.66	4192861.90	101.93020	(17011609)
654140.85	4192841.30	96.54392	(17011609)	654376.51	4192702.22	120.15108	(15041307)
654399.69	4192673.89	118.51030	(15041307)	654024.74	4193417.88	151.80790	(17011609)
653831.84	4193501.47	140.20630	(16010309)	653915.64	4193528.15	148.91144	(13011517)
653813.62	4193608.32	161.86719	(16010309)	653676.78	4192475.30	64.33372	(14021105)
653976.78	4192475.30	78.61013	(17011609)	654276.78	4192475.30	97.38672	(15041307)
654576.78	4192475.30	78.49059	(17013024)	654876.78	4192475.30	81.42585	(17122620)
655176.78	4192475.30	76.82910	(17020801)	655476.78	4192475.30	65.84536	(17011508)
655776.78	4192475.30	82.05332	(15030608)	656076.78	4192475.30	54.57476	(17122320)
656376.78	4192475.30	51.22171	(17121219)	656676.78	4192475.30	62.30793	(14102408)
653676.78	4192775.30	77.33841	(17123007)	653976.78	4192775.30	91.12822	(17011609)
654276.78	4192775.30	111.62117	(15041307)	654576.78	4192775.30	98.85699	(17122701)
654876.78	4192775.30	99.56641	(17012903)	655176.78	4192775.30	87.18425	(17120120)
655476.78	4192775.30	93.62682	(15030608)	655776.78	4192775.30	74.38052	(17122320)
656076.78	4192775.30	64.08986	(17121320)	656376.78	4192775.30	64.07488	(14102408)
656676.78	4192775.30	42.49631	(14042707)	653676.78	4193075.30	90.89446	(14021408)
653976.78	4193075.30	105.88499	(17011609)	654276.78	4193075.30	124.47169	(15041307)
654576.78	4193075.30	125.72243	(17122318)	654876.78	4193075.30	123.27699	(17011208)
655176.78	4193075.30	109.26821	(15030608)	655476.78	4193075.30	99.29265	(17122320)
655776.78	4193075.30	95.26656	(17011509)	656076.78	4193075.30	59.30936	(17011509)

656376.78	4193075.30	49.62414	(17122619)	656676.78	4193075.30	40.14574	(17121906)
653676.78	4193375.30	118.33650	(16010309)	653976.78	4193375.30	128.43700	(13011517)
654276.78	4193375.30	160.64089	(17123009)	654576.78	4193375.30	183.65772	(17012903)
654876.78	4193375.30	175.80200	(17012908)	655176.78	4193375.30	155.44748	(17121219)
655476.78	4193375.30	116.81378	(17011509)	655776.78	4193375.30	78.41861	(17122619)
656076.78	4193375.30	62.64797	(17020824)	656376.78	4193375.30	48.49881	(17011303)
656676.78	4193375.30	41.58239	(17011303)	653676.78	4193675.30	162.51969	(14120904)
653976.78	4193675.30	193.08361	(16010309)	654276.78	4193675.30	251.03238	(17011609)
654576.78	4193675.30	323.05419	(17012908)	654876.78	4193675.30	325.70970	(17011509)
655176.78	4193675.30	155.23902	(17020824)	655476.78	4193675.30	108.47389	(17011303)
655776.78	4193675.30	82.78140	(17121319)	656076.78	4193675.30	64.06134	(17010504)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE12 ***

INCLUDING SOURCE(S): L0011908 , L0011909 , L0011910 , L0011911 , L0011912 ,
L0011913 , L0011914 , L0011915 , L0011916 , L0011917 , L0011918 , L0011919 , L0011920 ,
L0011921 , L0011922 , L0011923 , L0011924 , L0011925 , L0011926 , L0011927 , L0011928 ,
L0011929 , L0011930 , L0011931 , L0011932 , L0011933 , L0011934 , L0011935 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)						

656376.78	4193675.30	51.37061	(17122519)	656676.78	4193675.30	45.62672	(17122519)
653676.78	4193975.30	307.53079	(17022506)	653976.78	4193975.30	442.36599	(17011205)
654276.78	4193975.30	957.78603	(17011509)	654576.78	4193975.30	654.37196	(17122519)
654876.78	4193975.30	259.68011	(17122719)	655176.78	4193975.30	158.50218	(17122621)
655476.78	4193975.30	109.63466	(17122621)	655776.78	4193975.30	81.51065	(16122009)
656076.78	4193975.30	72.78990	(16122009)	656376.78	4193975.30	65.56503	(16122009)
656676.78	4193975.30	59.58938	(16122009)	653676.78	4194275.30	459.07182	(17020404)
653976.78	4194275.30	438.46717	(17122909)	654276.78	4194275.30	287.44339	(17012717)
654576.78	4194275.30	205.40872	(17121119)	654876.78	4194275.30	174.67857	(14011317)
655176.78	4194275.30	128.59536	(15122617)	655476.78	4194275.30	99.66816	(14010519)
655776.78	4194275.30	77.16354	(15122424)	656076.78	4194275.30	63.21812	(14021603)
656376.78	4194275.30	51.86381	(14021603)	656676.78	4194275.30	43.53053	(15020206)
653676.78	4194575.30	180.88945	(17122909)	653976.78	4194575.30	176.97386	(17120219)
654276.78	4194575.30	151.12560	(17022508)	654576.78	4194575.30	133.18828	(17022706)
654876.78	4194575.30	117.54868	(17122923)	655176.78	4194575.30	98.89189	(17121119)
655476.78	4194575.30	83.63470	(13020908)	655776.78	4194575.30	68.51674	(13121420)
656076.78	4194575.30	57.98659	(15010317)	656376.78	4194575.30	49.32871	(15122617)
656676.78	4194575.30	45.71200	(13121709)	653676.78	4194875.30	119.05889	(13011909)
653976.78	4194875.30	123.28905	(17012717)	654276.78	4194875.30	109.59003	(17012720)
654576.78	4194875.30	109.13723	(17022508)	654876.78	4194875.30	90.93810	(17012601)
655176.78	4194875.30	82.58620	(13121109)	655476.78	4194875.30	73.86621	(17121119)
655776.78	4194875.30	60.27268	(13121617)	656076.78	4194875.30	51.46434	(14022307)
656376.78	4194875.30	45.38539	(14011317)	656676.78	4194875.30	38.86943	(13121420)
653676.78	4195175.30	90.43674	(17120106)	653976.78	4195175.30	94.64352	(17012717)

654276.78 4195175.30 86.95185 (17012720) 654576.78 4195175.30 83.03790 (17022508)
654876.78 4195175.30 75.44376 (17021405) 655176.78 4195175.30 67.21420 (17012601)
655476.78 4195175.30 73.33630 (13121109) 655776.78 4195175.30 53.71668 (17123020)
656076.78 4195175.30 66.39722 (13103008) 656376.78 4195175.30 41.06739 (13121617)
656676.78 4195175.30 36.28075 (14022307) 653676.78 4195475.30 67.53166 (17120219)
653976.78 4195475.30 70.03038 (17012717) 654276.78 4195475.30 71.29051 (17012720)
654576.78 4195475.30 64.68664 (17121401) 654876.78 4195475.30 60.88163 (17022508)
655176.78 4195475.30 57.61226 (17022706) 655476.78 4195475.30 53.29580 (17122321)
655776.78 4195475.30 64.43061 (13121109) 656076.78 4195475.30 54.08789 (13121109)
656376.78 4195475.30 56.26053 (13103008) 656676.78 4195475.30 53.85389 (13103008)
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*
*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE13 ***
INCLUDING SOURCE(S): L0013626 , L0013627 , L0013628 , L0013629 , L0013630 ,
L0013631 , L0013632 , L0013633 , L0013634 , L0013635 , L0013636 , L0013637 , L0013638 ,
L0013639 , L0013640 , L0013641 , L0013642 , L0013643 , L0013644 , L0013645 , L0013646 ,
L0013647 , L0013648 , L0013649 , L0013650 , L0013651 , L0013652 , L0013653 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	41.59155 (17121219)	656126.40	4192764.99	42.29254 (17122320)
656103.65	4192731.89	43.15634 (17122320)	656093.30	4192690.51	42.63484 (17122320)
656217.44	4192771.20	41.09817 (17121219)	656279.50	4192760.85	40.44386 (17121219)
656341.57	4192727.75	39.35202 (17121219)	656366.40	4192707.06	38.87517 (17121219)
653815.06	4193437.51	212.76474 (15010901)	653776.43	4193429.79	200.11414 (14120620)
653798.32	4193413.05	203.51726 (15010901)	653708.18	4193118.16	141.28195 (17011302)
653730.07	4193102.71	140.97842 (15010901)	653753.25	4193085.97	140.88445 (14012501)
653800.90	4193053.77	146.57813 (17011609)	653882.02	4192964.92	132.85562 (17122820)
653907.78	4192962.34	134.61565 (17122820)	653945.12	4192954.62	128.20450 (17012904)
654067.45	4192886.37	137.49694 (17123009)	654108.66	4192861.90	142.71618 (15041307)
654140.85	4192841.30	163.44229 (15041307)	654376.51	4192702.22	93.58097 (17011203)
654399.69	4192673.89	94.02010 (17013024)	654024.74	4193417.88	279.71918 (17123009)
653831.84	4193501.47	234.77713 (14012501)	653915.64	4193528.15	292.63199 (17011609)
653813.62	4193608.32	256.25228 (14120620)	653676.78	4192475.30	82.16861 (17121903)
653976.78	4192475.30	98.51403 (17123009)	654276.78	4192475.30	142.88384 (15041307)
654576.78	4192475.30	85.37672 (17012520)	654876.78	4192475.30	74.67731 (17122920)
655176.78	4192475.30	64.49636 (17020801)	655476.78	4192475.30	49.08272 (17011508)
655776.78	4192475.30	55.78077 (15030608)	656076.78	4192475.30	58.90964 (15030608)
656376.78	4192475.30	37.20113 (17122320)	656676.78	4192475.30	33.73707 (17121219)
653676.78	4192775.30	104.70074 (14012501)	653976.78	4192775.30	122.76137 (17123009)
654276.78	4192775.30	135.36460 (15041307)	654576.78	4192775.30	99.22492 (17122319)
654876.78	4192775.30	80.19243 (17012903)	655176.78	4192775.30	67.75803 (17120120)
655476.78	4192775.30	60.01033 (15030608)	655776.78	4192775.30	62.61379 (15030608)
656076.78	4192775.30	43.76744 (17122320)	656376.78	4192775.30	43.81512 (14102408)
656676.78	4192775.30	48.11701 (14102408)	653676.78	4193075.30	131.98295 (14120620)

653976.78	4193075.30	158.95277	(17123009)	654276.78	4193075.30	142.97693	(17122917)
654576.78	4193075.30	121.49280	(17122920)	654876.78	4193075.30	86.09704	(17011208)
655176.78	4193075.30	72.13874	(17012908)	655476.78	4193075.30	66.81867	(15030608)
655776.78	4193075.30	51.63953	(17121219)	656076.78	4193075.30	52.51097	(14102408)
656376.78	4193075.30	45.41620	(14102408)	656676.78	4193075.30	35.43966	(14042707)
653676.78	4193375.30	170.85348	(14021105)	653976.78	4193375.30	216.97980	(17123009)
654276.78	4193375.30	198.14403	(17013024)	654576.78	4193375.30	135.05126	(17020801)
654876.78	4193375.30	94.70724	(17012908)	655176.78	4193375.30	74.32449	(17122320)
655476.78	4193375.30	65.95718	(17011509)	655776.78	4193375.30	62.34789	(17011509)
656076.78	4193375.30	39.61244	(14042707)	656376.78	4193375.30	35.38304	(14042707)
656676.78	4193375.30	30.08227	(17121906)	653676.78	4193675.30	205.16487	(15022608)
653976.78	4193675.30	361.60962	(17122820)	654276.78	4193675.30	243.30435	(17122318)
654576.78	4193675.30	137.92906	(17120120)	654876.78	4193675.30	99.57102	(17022501)
655176.78	4193675.30	92.46343	(17011509)	655476.78	4193675.30	65.92564	(17011509)
655776.78	4193675.30	46.60695	(17121906)	656076.78	4193675.30	38.49269	(17020824)

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE13 ***

INCLUDING SOURCE(S): L0013626 , L0013627 , L0013628 , L0013629 , L0013630 , L0013631 , L0013632 , L0013633 , L0013634 , L0013635 , L0013636 , L0013637 , L0013638 , L0013639 , L0013640 , L0013641 , L0013642 , L0013643 , L0013644 , L0013645 , L0013646 , L0013647 , L0013648 , L0013649 , L0013650 , L0013651 , L0013652 , L0013653 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***							
** CONC OF OTHER IN MICROGRAMS/M**3							
X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)

656376.78	4193675.30	32.60038	(17011303)	656676.78	4193675.30	29.13615	(17011303)
653676.78	4193975.30	223.59892	(16010309)	653976.78	4193975.30	906.15354	(17011609)
654276.78	4193975.30	281.41763	(17012903)	654576.78	4193975.30	163.78907	(17011509)
654876.78	4193975.30	115.13595	(17011509)	655176.78	4193975.30	67.43648	(17121906)
655476.78	4193975.30	52.13298	(17121319)	655776.78	4193975.30	44.70910	(17121319)
656076.78	4193975.30	37.96230	(17042121)	656376.78	4193975.30	34.55930	(17122519)
656676.78	4193975.30	31.43013	(17122519)	653676.78	4194275.30	208.15560	(17021308)
653976.78	4194275.30	804.99732	(13011517)	654276.78	4194275.30	295.48009	(17011509)
654576.78	4194275.30	131.27479	(14022208)	654876.78	4194275.30	91.79719	(17122621)
655176.78	4194275.30	71.41748	(17122621)	655476.78	4194275.30	58.00827	(17122621)
655776.78	4194275.30	48.53483	(17122621)	656076.78	4194275.30	45.73749	(15121209)
656376.78	4194275.30	43.77815	(15121209)	656676.78	4194275.30	42.06436	(15121209)
653676.78	4194575.30	199.06249	(17011121)	653976.78	4194575.30	835.27585	(15011009)
654276.78	4194575.30	269.90240	(17120704)	654576.78	4194575.30	139.93038	(14011317)
654876.78	4194575.30	93.32173	(15010823)	655176.78	4194575.30	72.13553	(13120917)
655476.78	4194575.30	58.32216	(14021120)	655776.78	4194575.30	49.55357	(14022208)
656076.78	4194575.30	43.39889	(14022208)	656376.78	4194575.30	38.37830	(14022208)
656676.78	4194575.30	34.15703	(14022208)	653676.78	4194875.30	181.47500	(17122909)
653976.78	4194875.30	514.12506	(17020802)	654276.78	4194875.30	248.99593	(17021405)
654576.78	4194875.30	138.07752	(14011617)	654876.78	4194875.30	99.29181	(17121119)

655176.78	4194875.30	72.28027 (14011317)	655476.78	4194875.30	59.10734 (14011317)
655776.78	4194875.30	48.32794 (13020204)	656076.78	4194875.30	41.60983 (13032807)
656376.78	4194875.30	36.11826 (14010519)	656676.78	4194875.30	31.65139 (14010519)
653676.78	4195175.30	163.80322 (17022607)	653976.78	4195175.30	244.34290 (17120618)
654276.78	4195175.30	209.00111 (17022508)	654576.78	4195175.30	133.42345 (17022706)
654876.78	4195175.30	91.81547 (17022407)	655176.78	4195175.30	73.06956 (17121119)
655476.78	4195175.30	61.43404 (13103008)	655776.78	4195175.30	47.65527 (13020908)
656076.78	4195175.30	41.95802 (14011317)	656376.78	4195175.30	35.26892 (15010317)
656676.78	4195175.30	31.52244 (13020204)	653676.78	4195475.30	116.79900 (17120705)
653976.78	4195475.30	157.29244 (17121308)	654276.78	4195475.30	145.00794 (17120207)
654576.78	4195475.30	108.76089 (17121904)	654876.78	4195475.30	89.08338 (17012601)
655176.78	4195475.30	77.86131 (13121109)	655476.78	4195475.30	59.99484 (13121109)
655776.78	4195475.30	62.33071 (13103008)	656076.78	4195475.30	45.23436 (13103008)
656376.78	4195475.30	34.43644 (14022307)	656676.78	4195475.30	31.12603 (14011317)

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE14 ***

INCLUDING SOURCE(S): L0013887 , L0013888 , L0013889 , L0013890 , L0013891 ,
L0013892 , L0013893 , L0013894 , L0013895 , L0013896 , L0013897 , L0013898 , L0013899 ,
L0013900 , L0013901 , L0013902 , L0013903 , L0013904 , L0013905 , L0013906 , L0013907 ,
L0013908 , L0013909 , L0013910 , L0013911 , L0013912 , L0013913 , L0013914 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)	X-COORD (M) Y-COORD (M) CONC
(YYMMDDHH)	(YYMMDDHH)
656165.71 4192787.75 24.98110 (14042707)	656126.40 4192764.99 25.74408 (14042707)
656103.65 4192731.89 26.25942 (14042707)	656093.30 4192690.51 28.48859 (17011509)
656217.44 4192771.20 24.68326 (14042707)	656279.50 4192760.85 24.08619 (14042707)
656341.57 4192727.75 23.96271 (14042707)	656366.40 4192707.06 24.07464 (14042707)
653815.06 4193437.51 484.04627 (17011609)	653776.43 4193429.79 652.03786 (17011609)
653798.32 4193413.05 511.77556 (17011609)	653708.18 4193118.16 371.11729 (17011609)
653730.07 4193102.71 335.56762 (17011609)	653753.25 4193085.97 288.69440 (17011609)
653800.90 4193053.77 231.13146 (17123009)	653882.02 4192964.92 164.45992 (17123009)
653907.78 4192962.34 149.96610 (17122917)	653945.12 4192954.62 140.38100 (17122917)
654067.45 4192886.37 107.06994 (17013024)	654108.66 4192861.90 99.68139 (17013024)
654140.85 4192841.30 94.50922 (17122318)	654376.51 4192702.22 71.20130 (17012903)
654399.69 4192673.89 69.30237 (17012903)	654024.74 4193417.88 161.29157 (17013024)
653831.84 4193501.47 519.95579 (17011609)	653915.64 4193528.15 300.27158 (15011209)
653813.62 4193608.32 894.90504 (17011609)	653676.78 4192475.30 138.40617 (17011609)
653976.78 4192475.30 124.71418 (15041307)	654276.78 4192475.30 72.54082 (17122318)
654576.78 4192475.30 56.27619 (17020801)	654876.78 4192475.30 44.38622 (17012908)
655176.78 4192475.30 42.61067 (15030608)	655476.78 4192475.30 34.84352 (17022501)
655776.78 4192475.30 36.29456 (17011509)	656076.78 4192475.30 33.37591 (17011509)
656376.78 4192475.30 26.85862 (17011509)	656676.78 4192475.30 24.60677 (14042707)
653676.78 4192775.30 204.51610 (17011609)	653976.78 4192775.30 126.73399 (15041307)
654276.78 4192775.30 80.69498 (17122318)	654576.78 4192775.30 58.45076 (17011208)

654876.78	4192775.30	47.01313	(17022501)	655176.78	4192775.30	47.13418	(17011509)
655476.78	4192775.30	42.83626	(17011509)	655776.78	4192775.30	36.46577	(17011509)
656076.78	4192775.30	26.02314	(14042707)	656376.78	4192775.30	23.20159	(17121906)
656676.78	4192775.30	20.09213	(17020824)	653676.78	4193075.30	324.97089	(15010901)
653976.78	4193075.30	143.73079	(17122917)	654276.78	4193075.30	87.75169	(17012903)
654576.78	4193075.30	70.14658	(17011509)	654876.78	4193075.30	59.07652	(17011509)
655176.78	4193075.30	50.56141	(17011509)	655476.78	4193075.30	38.18991	(17011509)
655776.78	4193075.30	29.02808	(17121906)	656076.78	4193075.30	24.04022	(17020824)
656376.78	4193075.30	21.93737	(17121319)	656676.78	4193075.30	20.54616	(17121319)
653676.78	4193375.30	981.89982	(14021408)	653976.78	4193375.30	183.15038	(17122917)
654276.78	4193375.30	104.05557	(17011509)	654576.78	4193375.30	78.05595	(17011509)
654876.78	4193375.30	61.78855	(17011509)	655176.78	4193375.30	39.06897	(17121906)
655476.78	4193375.30	33.03585	(17122519)	655776.78	4193375.30	29.77535	(17122519)
656076.78	4193375.30	27.13577	(17122519)	656376.78	4193375.30	24.84316	(17122519)
656676.78	4193375.30	23.35973	(15121209)	653676.78	4193675.30	294.49309	(16010309)
653976.78	4193675.30	260.98277	(17120822)	654276.78	4193675.30	120.28643	(17011509)
654576.78	4193675.30	77.37590	(17011509)	654876.78	4193675.30	55.46016	(14022208)
655176.78	4193675.30	45.11801	(14022208)	655476.78	4193675.30	37.60528	(14022208)
655776.78	4193675.30	33.57878	(15121209)	656076.78	4193675.30	33.02855	(15121209)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE14 ***

INCLUDING SOURCE(S): L0013887 , L0013888 , L0013889 , L0013890 , L0013891 ,
L0013892 , L0013893 , L0013894 , L0013895 , L0013896 , L0013897 , L0013898 , L0013899 ,
L0013900 , L0013901 , L0013902 , L0013903 , L0013904 , L0013905 , L0013906 , L0013907 ,
L0013908 , L0013909 , L0013910 , L0013911 , L0013912 , L0013913 , L0013914 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
656376.78	4193675.30	32.33644	(15121209)	656676.78	4193675.30	31.70087	(15121209)
653676.78	4193975.30	183.84904	(17012717)	653976.78	4193975.30	688.51267	(17021405)
654276.78	4193975.30	137.36405	(17121119)	654576.78	4193975.30	84.36090	(14011317)
654876.78	4193975.30	60.00076	(14022208)	655176.78	4193975.30	48.75621	(14022208)
655476.78	4193975.30	41.30607	(14022208)	655776.78	4193975.30	35.92560	(14022208)
656076.78	4193975.30	31.82386	(14022208)	656376.78	4193975.30	28.54612	(14022208)
656676.78	4193975.30	25.83270	(14022208)	653676.78	4194275.30	136.07861	(17012717)
653976.78	4194275.30	382.18287	(17012905)	654276.78	4194275.30	202.83328	(17122321)
654576.78	4194275.30	102.19285	(17121119)	654876.78	4194275.30	68.26052	(14011317)
655176.78	4194275.30	55.26468	(14011317)	655476.78	4194275.30	43.18726	(15010823)
655776.78	4194275.30	36.40327	(13032807)	656076.78	4194275.30	32.13355	(13032807)
656376.78	4194275.30	28.14745	(13120917)	656676.78	4194275.30	25.13509	(13121709)
653676.78	4194575.30	108.93136	(17012717)	653976.78	4194575.30	168.87771	(13121321)
654276.78	4194575.30	202.22125	(17121904)	654576.78	4194575.30	121.19206	(17122321)
654876.78	4194575.30	77.53568	(13121109)	655176.78	4194575.30	61.31198	(13103008)
655476.78	4194575.30	45.42260	(13121617)	655776.78	4194575.30	39.07592	(14011317)

656076.78	4194575.30	33.84873	(14011317)	656376.78	4194575.30	28.76249	(15010317)
656676.78	4194575.30	25.63412	(13020204)	653676.78	4194875.30	88.94569	(17012717)
653976.78	4194875.30	115.51338	(17012720)	654276.78	4194875.30	145.52413	(17022508)
654576.78	4194875.30	109.71504	(17022324)	654876.78	4194875.30	82.15949	(17122321)
655176.78	4194875.30	74.55291	(13121109)	655476.78	4194875.30	56.43138	(13103008)
655776.78	4194875.30	52.94466	(13103008)	656076.78	4194875.30	33.10420	(13121319)
656376.78	4194875.30	29.39135	(13020908)	656676.78	4194875.30	26.46286	(14011317)
653676.78	4195175.30	69.90604	(17012924)	653976.78	4195175.30	88.34852	(17012720)
654276.78	4195175.30	99.66116	(17121401)	654576.78	4195175.30	90.13159	(17121904)
654876.78	4195175.30	73.71085	(17022706)	655176.78	4195175.30	61.79308	(13121809)
655476.78	4195175.30	68.87804	(13121109)	655776.78	4195175.30	42.37324	(13121109)
656076.78	4195175.30	53.41485	(13103008)	656376.78	4195175.30	42.77123	(13103008)
656676.78	4195175.30	25.30780	(13121319)	653676.78	4195475.30	60.72910	(17120618)
653976.78	4195475.30	70.98820	(17012720)	654276.78	4195475.30	74.33758	(17123005)
654576.78	4195475.30	70.84116	(17022508)	654876.78	4195475.30	67.77959	(17021405)
655176.78	4195475.30	57.83290	(17012601)	655476.78	4195475.30	55.23792	(13121809)
655776.78	4195475.30	62.22832	(13121109)	656076.78	4195475.30	45.48139	(13121109)
656376.78	4195475.30	45.28152	(13103008)	656676.78	4195475.30	47.48966	(13103008)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE2 ***

INCLUDING SOURCE(S): L0009937 , L0009938 , L0009939 , L0009940 , L0009941 ,
L0009942 , L0009943 , L0009944 , L0009945 , L0009946 , L0009947 , L0009948 , L0009949 ,
L0009950 , L0009951 , L0009952 , L0009953 , L0009954 , L0009955 , L0009956 , L0009957 ,
L0009958 , L0009959 , L0009960 , L0009961 , L0009962 , L0009963 , L0009964 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)						

656165.71	4192787.75	62.05560	(15030608)	656126.40	4192764.99	77.26499	(15030608)
656103.65	4192731.89	86.60692	(15030608)	656093.30	4192690.51	89.36957	(15030608)
656217.44	4192771.20	60.53439	(17122320)	656279.50	4192760.85	63.25957	(17122320)
656341.57	4192727.75	61.90684	(17122320)	656366.40	4192707.06	60.71000	(17122320)
653815.06	4193437.51	85.60030	(13013108)	653776.43	4193429.79	82.94791	(13013108)
653798.32	4193413.05	84.02689	(13013108)	653708.18	4193118.16	71.94392	(16010309)
653730.07	4193102.71	71.64444	(15122802)	653753.25	4193085.97	71.03335	(15122802)
653800.90	4193053.77	72.89560	(15010507)	653882.02	4192964.92	73.85604	(13020205)
653907.78	4192962.34	73.62097	(13020205)	653945.12	4192954.62	74.01144	(14021408)
654067.45	4192886.37	80.12556	(17123007)	654108.66	4192861.90	79.76754	(17122918)
654140.85	4192841.30	80.37980	(14021105)	654376.51	4192702.22	95.77329	(17011609)
654399.69	4192673.89	96.36266	(17011609)	654024.74	4193417.88	97.19691	(16010309)
653831.84	4193501.47	87.92128	(13013108)	653915.64	4193528.15	94.71142	(16010309)
653813.62	4193608.32	90.80246	(14120904)	653676.78	4192475.30	64.63742	(14011509)
653976.78	4192475.30	61.66339	(17122918)	654276.78	4192475.30	70.80046	(17011609)
654576.78	4192475.30	91.93163	(17123009)	654876.78	4192475.30	118.36073	(15041307)
655176.78	4192475.30	91.25415	(17122319)	655476.78	4192475.30	83.58954	(17012903)

655776.78	4192475.30	74.64358	(17120120)	656076.78	4192475.30	62.70509	(17012908)
656376.78	4192475.30	76.12316	(15030608)	656676.78	4192475.30	49.77978	(17122320)
653676.78	4192775.30	61.65374	(17020905)	653976.78	4192775.30	73.54817	(14011509)
654276.78	4192775.30	83.41150	(15010901)	654576.78	4192775.30	112.72676	(17123009)
654876.78	4192775.30	116.86330	(17122917)	655176.78	4192775.30	121.13701	(17122518)
655476.78	4192775.30	100.09712	(17020801)	655776.78	4192775.30	77.47433	(17012908)
656076.78	4192775.30	85.61198	(15030608)	656376.78	4192775.30	62.01185	(17122320)
656676.78	4192775.30	56.12442	(14102408)	653676.78	4193075.30	69.38923	(16010309)
653976.78	4193075.30	80.40845	(13020205)	654276.78	4193075.30	98.80746	(13012120)
654576.78	4193075.30	141.99383	(17123009)	654876.78	4193075.30	161.48093	(17013024)
655176.78	4193075.30	152.69580	(17012903)	655476.78	4193075.30	122.15616	(17011508)
655776.78	4193075.30	97.96333	(15030608)	656076.78	4193075.30	80.83713	(17121219)
656376.78	4193075.30	74.86099	(17011509)	656676.78	4193075.30	50.80745	(17011509)
653676.78	4193375.30	75.97631	(13123102)	653976.78	4193375.30	92.46682	(16010309)
654276.78	4193375.30	118.26546	(13011517)	654576.78	4193375.30	185.62863	(17123009)
654876.78	4193375.30	239.17042	(17122319)	655176.78	4193375.30	212.39503	(17120120)
655476.78	4193375.30	127.95631	(15021508)	655776.78	4193375.30	109.62177	(17121320)
656076.78	4193375.30	87.02284	(17011509)	656376.78	4193375.30	57.01034	(17122619)
656676.78	4193375.30	45.25201	(17121906)	653676.78	4193675.30	87.33297	(17121504)
653976.78	4193675.30	104.34439	(15010804)	654276.78	4193675.30	141.50804	(14021408)
654576.78	4193675.30	270.47464	(17011609)	654876.78	4193675.30	463.56111	(17012903)
655176.78	4193675.30	252.71697	(17122320)	655476.78	4193675.30	175.50383	(17011509)
655776.78	4193675.30	90.79687	(17122619)	656076.78	4193675.30	66.43920	(17020824)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE2 ***

INCLUDING SOURCE(S): L0009937 , L0009938 , L0009939 , L0009940 , L0009941 ,
L0009942 , L0009943 , L0009944 , L0009945 , L0009946 , L0009947 , L0009948 , L0009949 ,
L0009950 , L0009951 , L0009952 , L0009953 , L0009954 , L0009955 , L0009956 , L0009957 ,
L0009958 , L0009959 , L0009960 , L0009961 , L0009962 , L0009963 , L0009964 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)						
656376.78	4193675.30	53.37494	(17011303)	656676.78	4193675.30	45.10824 (17121319)
653676.78	4193975.30	101.69920	(17011605)	653976.78	4193975.30	134.89899 (17021308)
654276.78	4193975.30	188.64588	(17021308)	654576.78	4193975.30	452.94791 (17011609)
654876.78	4193975.30	535.86740	(17011509)	655176.78	4193975.30	169.10049 (17121906)
655476.78	4193975.30	106.90944	(14012017)	655776.78	4193975.30	83.61594 (17122519)
656076.78	4193975.30	67.19327	(17122519)	656376.78	4193975.30	53.52624 (17122519)
656676.78	4193975.30	44.78195	(17122719)	653676.78	4194275.30	123.74139 (17011121)
653976.78	4194275.30	168.66557	(17011121)	654276.78	4194275.30	291.05940 (17020404)
654576.78	4194275.30	1085.20363	(17012717)	654876.78	4194275.30	213.97914 (14022208)
655176.78	4194275.30	134.83316	(14022208)	655476.78	4194275.30	100.67325 (14022208)
655776.78	4194275.30	80.83644	(14022208)	656076.78	4194275.30	67.00235 (14022208)
656376.78	4194275.30	56.35571	(14022208)	656676.78	4194275.30	47.89612 (14022208)

653676.78 4194575.30 146.57014 (17121007) 653976.78 4194575.30 199.62305 (17043004)
654276.78 4194575.30 434.42632 (17122909) 654576.78 4194575.30 300.76243 (17012720)
654876.78 4194575.30 160.76932 (17022508) 655176.78 4194575.30 106.57714 (17121119)
655476.78 4194575.30 85.39239 (14011317) 655776.78 4194575.30 70.35699 (14011317)
656076.78 4194575.30 57.03187 (15121621) 656376.78 4194575.30 49.41102 (13032807)
656676.78 4194575.30 42.49296 (14010519) 653676.78 4194875.30 112.71829 (17120208)
653976.78 4194875.30 170.34039 (17122909) 654276.78 4194875.30 248.63875 (17120619)
654576.78 4194875.30 189.32716 (17012720) 654876.78 4194875.30 137.84325 (17022508)
655176.78 4194875.30 92.39876 (17022706) 655476.78 4194875.30 74.66593 (17122923)
655776.78 4194875.30 63.82360 (17121119) 656076.78 4194875.30 52.08589 (14022307)
656376.78 4194875.30 47.41360 (14011317) 656676.78 4194875.30 39.69955 (14120906)
653676.78 4195175.30 97.34326 (17011701) 653976.78 4195175.30 139.93490 (13011909)
654276.78 4195175.30 130.90057 (15122702) 654576.78 4195175.30 133.75461 (17122408)
654876.78 4195175.30 103.70835 (17121401) 655176.78 4195175.30 83.58484 (17021405)
655476.78 4195175.30 67.42817 (17122321) 655776.78 4195175.30 66.39291 (13121109)
656076.78 4195175.30 55.55970 (13103008) 656376.78 4195175.30 51.11123 (13103008)
656676.78 4195175.30 37.13014 (14022307) 653676.78 4195475.30 109.84786 (13011909)
653976.78 4195475.30 99.36540 (17022607) 654276.78 4195475.30 101.77910 (17012717)
654576.78 4195475.30 100.93890 (17122408) 654876.78 4195475.30 82.85406 (17012905)
655176.78 4195475.30 71.40305 (17022508) 655476.78 4195475.30 62.12938 (17022706)
655776.78 4195475.30 53.15865 (17122321) 656076.78 4195475.30 62.23838 (13121109)
656376.78 4195475.30 44.42388 (13121109) 656676.78 4195475.30 52.39714 (13103008)
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*
*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE3 ***
INCLUDING SOURCE(S): L0010213 , L0010214 , L0010215 , L0010216 , L0010217 ,
L0010218 , L0010219 , L0010220 , L0010221 , L0010222 , L0010223 , L0010224 , L0010225 ,
L0010226 , L0010227 , L0010228 , L0010229 , L0010230 , L0010231 , L0010232 , L0010233 ,
L0010234 , L0010235 , L0010236 , L0010237 , L0010238 , L0010239 , L0010240 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	77.11043 (17012908)	656126.40	4192764.99	77.49282 (17011508)
656103.65	4192731.89	80.12452 (17011508)	656093.30	4192690.51	75.79911 (17011508)
656217.44	4192771.20	78.24462 (17012908)	656279.50	4192760.85	75.76115 (17012908)
656341.57	4192727.75	79.52467 (15030608)	656366.40	4192707.06	79.58305 (15030608)
653815.06	4193437.51	58.46280 (14120904)	653776.43	4193429.79	57.27227 (14120904)
653798.32	4193413.05	57.56476 (13020106)	653708.18	4193118.16	51.39177 (13013108)
653730.07	4193102.71	52.02371 (13013108)	653753.25	4193085.97	52.39742 (13013108)
653800.90	4193053.77	53.10191 (17121108)	653882.02	4192964.92	53.02611 (16010309)
653907.78	4192962.34	53.39204 (15122802)	653945.12	4192954.62	53.50977 (13012124)
654067.45	4192886.37	56.59002 (13020205)	654108.66	4192861.90	57.37477 (13020205)
654140.85	4192841.30	59.15154 (14011509)	654376.51	4192702.22	61.15390 (14021105)
654399.69	4192673.89	61.95511 (14021105)	654024.74	4193417.88	64.80451 (13013108)
653831.84	4193501.47	59.99301 (14120904)	653915.64	4193528.15	63.15144 (14120904)

653813.62	4193608.32	62.61607 (17121504)	653676.78	4192475.30	42.82829 (15010507)
653976.78	4192475.30	57.47387 (14011509)	654276.78	4192475.30	53.95036 (17122918)
654576.78	4192475.30	61.47576 (14012501)	654876.78	4192475.30	77.61529 (17123009)
655176.78	4192475.30	125.87744 (15041307)	655476.78	4192475.30	87.35422 (17012520)
655776.78	4192475.30	83.08396 (17012903)	656076.78	4192475.30	67.00633 (17011208)
656376.78	4192475.30	58.19997 (17011508)	656676.78	4192475.30	78.34051 (15030608)
653676.78	4192775.30	46.63062 (16010309)	653976.78	4192775.30	52.23571 (17020905)
654276.78	4192775.30	63.30351 (14011509)	654576.78	4192775.30	70.40660 (15010901)
654876.78	4192775.30	92.35702 (17123009)	655176.78	4192775.30	127.26525 (15041307)
655476.78	4192775.30	114.49453 (17012804)	655776.78	4192775.30	106.89206 (17020801)
656076.78	4192775.30	83.14847 (17011508)	656376.78	4192775.30	89.00025 (15030608)
656676.78	4192775.30	59.86163 (17122320)	653676.78	4193075.30	50.33805 (13013108)
653976.78	4193075.30	57.48523 (16010309)	654276.78	4193075.30	66.52628 (13020205)
654576.78	4193075.30	81.45855 (14021105)	654876.78	4193075.30	112.38579 (17123009)
655176.78	4193075.30	142.10197 (17122917)	655476.78	4193075.30	146.68796 (17012903)
655776.78	4193075.30	122.62620 (17120120)	656076.78	4193075.30	103.60434 (15030608)
656376.78	4193075.30	78.73580 (17122320)	656676.78	4193075.30	64.96053 (14102408)
653676.78	4193375.30	53.97885 (14120904)	653976.78	4193375.30	62.39316 (13013108)
654276.78	4193375.30	75.01466 (16010309)	654576.78	4193375.30	95.60147 (13011517)
654876.78	4193375.30	154.00883 (17011609)	655176.78	4193375.30	217.98530 (17013024)
655476.78	4193375.30	200.23579 (17020801)	655776.78	4193375.30	132.44121 (17120121)
656076.78	4193375.30	105.53652 (17121219)	656376.78	4193375.30	92.62803 (17011509)
656676.78	4193375.30	50.48762 (17122619)	653676.78	4193675.30	62.94835 (17021308)
653976.78	4193675.30	69.28566 (17121504)	654276.78	4193675.30	84.63939 (16010309)
654576.78	4193675.30	112.22009 (13011517)	654876.78	4193675.30	205.28226 (17011609)
655176.78	4193675.30	427.73886 (17122620)	655476.78	4193675.30	230.32617 (17012908)
655776.78	4193675.30	165.26819 (17011509)	656076.78	4193675.30	87.88219 (17011509)

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*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE3 ***
INCLUDING SOURCE(S): L0010213 , L0010214 , L0010215 , L0010216 , L0010217 ,
L0010218 , L0010219 , L0010220 , L0010221 , L0010222 , L0010223 , L0010224 , L0010225 ,
L0010226 , L0010227 , L0010228 , L0010229 , L0010230 , L0010231 , L0010232 , L0010233 ,
L0010234 , L0010235 , L0010236 , L0010237 , L0010238 , L0010239 , L0010240 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	63.78465 (17121906)	656676.78	4193675.30	47.68521 (17011303)
653676.78	4193975.30	67.40487 (17011605)	653976.78	4193975.30	83.72224 (17021308)
654276.78	4193975.30	104.44349 (17021308)	654576.78	4193975.30	141.01502 (17021308)
654876.78	4193975.30	318.53078 (17011609)	655176.78	4193975.30	549.68361 (15021508)
655476.78	4193975.30	201.94242 (17011509)	655776.78	4193975.30	93.02582 (17121906)
656076.78	4193975.30	71.10562 (14012017)	656376.78	4193975.30	58.89545 (17122519)
656676.78	4193975.30	49.90976 (17122519)	653676.78	4194275.30	76.43959 (17121203)
653976.78	4194275.30	94.23831 (17011121)	654276.78	4194275.30	126.28816 (17011121)

654576.78	4194275.30	202.22045	(17122608)	654876.78	4194275.30	881.38216	(17122909)
655176.78	4194275.30	202.47019	(14022208)	655476.78	4194275.30	120.02170	(14022208)
655776.78	4194275.30	88.70633	(14022208)	656076.78	4194275.30	71.25936	(14022208)
656376.78	4194275.30	59.17024	(14022208)	656676.78	4194275.30	49.89122	(14022208)
653676.78	4194575.30	87.15019	(17122608)	653976.78	4194575.30	115.49752	(17011201)
654276.78	4194575.30	171.54488	(17020404)	654576.78	4194575.30	319.87541	(17123024)
654876.78	4194575.30	385.86636	(17012717)	655176.78	4194575.30	162.56247	(17022508)
655476.78	4194575.30	95.07229	(14011317)	655776.78	4194575.30	75.00261	(14011317)
656076.78	4194575.30	60.69040	(14011317)	656376.78	4194575.30	50.82065	(13032807)
656676.78	4194575.30	43.73110	(13120917)	653676.78	4194875.30	93.48799	(17020404)
653976.78	4194875.30	103.44294	(17120624)	654276.78	4194875.30	155.59114	(17123024)
654576.78	4194875.30	270.83184	(17022607)	654876.78	4194875.30	188.29412	(17012720)
655176.78	4194875.30	126.54675	(17022508)	655476.78	4194875.30	82.81571	(17022706)
655776.78	4194875.30	65.29195	(17121119)	656076.78	4194875.30	55.06339	(17121119)
656376.78	4194875.30	47.42314	(14011317)	656676.78	4194875.30	42.48403	(14011317)
653676.78	4195175.30	73.09910	(17120208)	653976.78	4195175.30	93.52045	(14121304)
654276.78	4195175.30	147.08168	(13011909)	654576.78	4195175.30	151.70595	(17120219)
654876.78	4195175.30	130.31008	(17122408)	655176.78	4195175.30	99.18847	(17022508)
655476.78	4195175.30	73.74255	(17021405)	655776.78	4195175.30	58.42956	(17122321)
656076.78	4195175.30	56.83485	(13121109)	656376.78	4195175.30	47.53789	(13103008)
656676.78	4195175.30	43.69903	(13103008)	653676.78	4195475.30	65.51448	(17123021)
653976.78	4195475.30	86.86452	(13011909)	654276.78	4195475.30	106.69293	(17022607)
654576.78	4195475.30	99.99757	(15021408)	654876.78	4195475.30	97.83516	(17122408)
655176.78	4195475.30	79.68482	(17012905)	655476.78	4195475.30	68.13121	(17022508)
655776.78	4195475.30	55.95532	(17022706)	656076.78	4195475.30	47.68351	(13121109)
656376.78	4195475.30	54.73053	(13121109)	656676.78	4195475.30	43.41309	(13103008)

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE4 ***

INCLUDING SOURCE(S): L0010552 , L0010553 , L0010554 , L0010555 , L0010556 , L0010557 , L0010558 , L0010559 , L0010560 , L0010561 , L0010562 , L0010563 , L0010564 , L0010565 , L0010566 , L0010567 , L0010568 , L0010569 , L0010570 , L0010571 , L0010572 , L0010573 , L0010574 , L0010575 , L0010576 , L0010577 , L0010578 , L0010579 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	93.37184 (17020801)	656126.40	4192764.99	100.71055 (17020801)
656103.65	4192731.89	96.01418 (17020801)	656093.30	4192690.51	85.98312 (17020801)
656217.44	4192771.20	82.55041 (17011208)	656279.50	4192760.85	86.82428 (17120120)
656341.57	4192727.75	83.83866 (17120120)	656366.40	4192707.06	81.44255 (17120120)
653815.06	4193437.51	44.65234 (17121504)	653776.43	4193429.79	44.01003 (17121504)
653798.32	4193413.05	43.88355 (17121504)	653708.18	4193118.16	39.72671 (15010804)
653730.07	4193102.71	39.93043 (15010804)	653753.25	4193085.97	40.00144 (15010804)
653800.90	4193053.77	40.06307 (13123102)	653882.02	4192964.92	41.33798 (13013108)
653907.78	4192962.34	41.66257 (17121108)	653945.12	4192954.62	42.33050 (17121108)

654067.45	4192886.37	43.43227	(16010309)	654108.66	4192861.90	43.32220	(15122802)
654140.85	4192841.30	43.55094	(15010507)	654376.51	4192702.22	53.87505	(14011509)
654399.69	4192673.89	54.79245	(14011509)	654024.74	4193417.88	47.89067	(14120904)
653831.84	4193501.47	46.06194	(17121504)	653915.64	4193528.15	47.85361	(17121504)
653813.62	4193608.32	48.02106	(17021308)	653676.78	4192475.30	34.37713	(16010309)
653976.78	4192475.30	37.69291	(15010507)	654276.78	4192475.30	53.17469	(14011509)
654576.78	4192475.30	47.65895	(17122918)	654876.78	4192475.30	56.41992	(17011609)
655176.78	4192475.30	70.43219	(17123009)	655476.78	4192475.30	121.90769	(15041307)
655776.78	4192475.30	84.87409	(17012520)	656076.78	4192475.30	77.92369	(17122920)
656376.78	4192475.30	66.77566	(17020801)	656676.78	4192475.30	60.13206	(17011508)
653676.78	4192775.30	37.05684	(13013108)	653976.78	4192775.30	40.65584	(15122802)
654276.78	4192775.30	46.12822	(13020205)	654576.78	4192775.30	55.66795	(14011509)
654876.78	4192775.30	62.47418	(15010901)	655176.78	4192775.30	82.72161	(17123009)
655476.78	4192775.30	126.59972	(15041307)	655776.78	4192775.30	107.15676	(17122319)
656076.78	4192775.30	99.55535	(17020801)	656376.78	4192775.30	77.91460	(17011508)
656676.78	4192775.30	81.42346	(15030608)	653676.78	4193075.30	38.97645	(15010804)
653976.78	4193075.30	43.86465	(13013108)	654276.78	4193075.30	49.54853	(16010309)
654576.78	4193075.30	58.10376	(14021408)	654876.78	4193075.30	70.52323	(13012120)
655176.78	4193075.30	100.50131	(17011609)	655476.78	4193075.30	134.64330	(17122917)
655776.78	4193075.30	147.88651	(17122920)	656076.78	4193075.30	120.93511	(17120120)
656376.78	4193075.30	92.59649	(15030608)	656676.78	4193075.30	73.87940	(17122320)
653676.78	4193375.30	41.94249	(17121504)	653976.78	4193375.30	46.43619	(13020106)
654276.78	4193375.30	54.09507	(16010309)	654576.78	4193375.30	64.14157	(16010309)
654876.78	4193375.30	81.72537	(13011517)	655176.78	4193375.30	132.85264	(17011609)
655476.78	4193375.30	192.99090	(17013024)	655776.78	4193375.30	209.91219	(17020801)
656076.78	4193375.30	139.05340	(17012908)	656376.78	4193375.30	99.13001	(17122320)
656676.78	4193375.30	85.95138	(17011509)	653676.78	4193675.30	48.70524	(17021308)
653976.78	4193675.30	53.29182	(17021308)	654276.78	4193675.30	58.36626	(17121504)
654576.78	4193675.30	73.13789	(16010309)	654876.78	4193675.30	95.73100	(13011517)
655176.78	4193675.30	170.69459	(17011609)	655476.78	4193675.30	351.81237	(17012804)
655776.78	4193675.30	248.07264	(17012908)	656076.78	4193675.30	140.13310	(17011509)

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SLINE4 ***

INCLUDING SOURCE(S): L0010552 , L0010553 , L0010554 , L0010555 , L0010556 , L0010557 , L0010558 , L0010559 , L0010560 , L0010561 , L0010562 , L0010563 , L0010564 , L0010565 , L0010566 , L0010567 , L0010568 , L0010569 , L0010570 , L0010571 , L0010572 , L0010573 , L0010574 , L0010575 , L0010576 , L0010577 , L0010578 , L0010579 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	99.29489	(17011509)	656676.78	4193675.30	59.61186 (17121906)
653676.78	4193975.30	49.81997	(17011605)	653976.78	4193975.30	59.21411 (17021308)
654276.78	4193975.30	70.80599	(17021308)	654576.78	4193975.30	86.78622 (17021308)
654876.78	4193975.30	116.05258	(17021308)	655176.78	4193975.30	254.45745 (17011609)

655476.78	4193975.30	675.76308	(17012908)	655776.78	4193975.30	202.89239	(17011509)
656076.78	4193975.30	91.79842	(17121906)	656376.78	4193975.30	62.53872	(14012017)
656676.78	4193975.30	51.25199	(14012017)	653676.78	4194275.30	53.81151	(17011505)
653976.78	4194275.30	63.84686	(17121203)	654276.78	4194275.30	77.96572	(17121203)
654576.78	4194275.30	103.58889	(17011121)	654876.78	4194275.30	160.42036	(17122608)
655176.78	4194275.30	526.21662	(15011209)	655476.78	4194275.30	259.71734	(17011509)
655776.78	4194275.30	107.96304	(14022208)	656076.78	4194275.30	78.51781	(14022208)
656376.78	4194275.30	62.64377	(14022208)	656676.78	4194275.30	51.87452	(14022208)
653676.78	4194575.30	60.03944	(17121322)	653976.78	4194575.30	73.13661	(17122608)
654276.78	4194575.30	94.63904	(17011201)	654576.78	4194575.30	137.20679	(17020404)
654876.78	4194575.30	251.94373	(17121402)	655176.78	4194575.30	471.24518	(17012717)
655476.78	4194575.30	155.76234	(17022508)	655776.78	4194575.30	86.39079	(14011317)
656076.78	4194575.30	66.67616	(14011317)	656376.78	4194575.30	53.50135	(14011317)
656676.78	4194575.30	44.99218	(13032807)	653676.78	4194875.30	81.05133	(16012009)
653976.78	4194875.30	86.24196	(17020404)	654276.78	4194875.30	105.18940	(17121402)
654576.78	4194875.30	147.31716	(17123024)	654876.78	4194875.30	305.81835	(17122724)
655176.78	4194875.30	189.92133	(17012924)	655476.78	4194875.30	117.74749	(17022508)
655776.78	4194875.30	74.80848	(17022706)	656076.78	4194875.30	58.16426	(17122923)
656376.78	4194875.30	48.64947	(14011317)	656676.78	4194875.30	43.49304	(14011317)
653676.78	4195175.30	63.24088	(17043004)	653976.78	4195175.30	69.64894	(17120624)
654276.78	4195175.30	95.83217	(17123024)	654576.78	4195175.30	133.24711	(16022108)
654876.78	4195175.30	183.14282	(17120219)	655176.78	4195175.30	128.43917	(17122408)
655476.78	4195175.30	95.00246	(17022508)	655776.78	4195175.30	66.15098	(17021405)
656076.78	4195175.30	52.40661	(17122923)	656376.78	4195175.30	49.63428	(13121109)
656676.78	4195175.30	41.51648	(13103008)	653676.78	4195475.30	52.86614	(17120208)
653976.78	4195475.30	64.48455	(17123024)	654276.78	4195475.30	87.77238	(17020506)
654576.78	4195475.30	104.00638	(17022607)	654876.78	4195475.30	106.63424	(15021408)
655176.78	4195475.30	97.03897	(17122408)	655476.78	4195475.30	74.64292	(17012905)
655776.78	4195475.30	62.95168	(17022508)	656076.78	4195475.30	50.39791	(17022706)
656376.78	4195475.30	47.56731	(13121109)	656676.78	4195475.30	48.33539	(13121109)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE5 ***
INCLUDING SOURCE(S): L0010946 , L0010947 , L0010948 , L0010949 , L0010950 ,
L0010951 , L0010952 , L0010953 , L0010954 , L0010955 , L0010956 , L0010957 , L0010958 ,
L0010959 , L0010960 , L0010961 , L0010962 , L0010963 , L0010964 , L0010965 , L0010966 ,
L0010967 , L0010968 , L0010969 , L0010970 , L0010971 , L0010972 , L0010973 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC

656165.71	4192787.75	105.25788	(17122518)	656126.40	4192764.99	105.86158 (17012804)
656103.65	4192731.89	102.10904	(17122319)	656093.30	4192690.51	94.47750 (17011120)
656217.44	4192771.20	103.95169	(17122518)	656279.50	4192760.85	96.55588 (17122920)
656341.57	4192727.75	92.06929	(17012903)	656366.40	4192707.06	90.05956 (17012903)
653815.06	4193437.51	35.53245	(17121504)	653776.43	4193429.79	34.99797 (17121504)

653798.32	4193413.05	35.19054	(17121504)	653708.18	4193118.16	32.09054	(14120904)
653730.07	4193102.71	32.34688	(14120904)	653753.25	4193085.97	32.57915	(15011205)
653800.90	4193053.77	32.99908	(15010804)	653882.02	4192964.92	33.49854	(13123102)
653907.78	4192962.34	33.67914	(13123102)	653945.12	4192954.62	33.96891	(13013108)
654067.45	4192886.37	36.08720	(13013108)	654108.66	4192861.90	36.70389	(17121108)
654140.85	4192841.30	37.06438	(16010309)	654376.51	4192702.22	39.49448	(15010507)
654399.69	4192673.89	39.41306	(17020905)	654024.74	4193417.88	37.73435	(17121504)
653831.84	4193501.47	36.02820	(17121504)	653915.64	4193528.15	37.31090	(17121504)
653813.62	4193608.32	38.39969	(17021308)	653676.78	4192475.30	29.57698	(17121108)
653976.78	4192475.30	32.61229	(15122802)	654276.78	4192475.30	36.07506	(17020905)
654576.78	4192475.30	54.24675	(14011509)	654876.78	4192475.30	48.04877	(14021105)
655176.78	4192475.30	57.11710	(14012501)	655476.78	4192475.30	69.14992	(17123009)
655776.78	4192475.30	132.01077	(15041307)	656076.78	4192475.30	84.30950	(17012520)
656376.78	4192475.30	80.49764	(17122920)	656676.78	4192475.30	69.21023	(17020801)
653676.78	4192775.30	30.26588	(13123102)	653976.78	4192775.30	34.36037	(17121108)
654276.78	4192775.30	38.23653	(15122802)	654576.78	4192775.30	45.83066	(14011509)
654876.78	4192775.30	56.00581	(14011509)	655176.78	4192775.30	64.38058	(15010901)
655476.78	4192775.30	81.61488	(17122820)	655776.78	4192775.30	141.58778	(15041307)
656076.78	4192775.30	104.06023	(17122319)	656376.78	4192775.30	89.22011	(17012903)
656676.78	4192775.30	74.05861	(17120120)	653676.78	4193075.30	31.62890	(14120904)
653976.78	4193075.30	35.28705	(13123102)	654276.78	4193075.30	40.56602	(17121108)
654576.78	4193075.30	46.15180	(15010507)	654876.78	4193075.30	56.78771	(14011509)
655176.78	4193075.30	72.22214	(13012120)	655476.78	4193075.30	104.93662	(17011609)
655776.78	4193075.30	146.66476	(17122917)	656076.78	4193075.30	142.42915	(17122518)
656376.78	4193075.30	97.10023	(17011208)	656676.78	4193075.30	78.42913	(17012908)
653676.78	4193375.30	33.66165	(17121504)	653976.78	4193375.30	36.58704	(17121504)
654276.78	4193375.30	41.72495	(15010804)	654576.78	4193375.30	50.17371	(16010309)
654876.78	4193375.30	60.12624	(13020205)	655176.78	4193375.30	80.39247	(13011517)
655476.78	4193375.30	141.98075	(17011609)	655776.78	4193375.30	193.81010	(17013024)
656076.78	4193375.30	170.76975	(17020801)	656376.78	4193375.30	107.44801	(17012908)
656676.78	4193375.30	75.33694	(17122320)	653676.78	4193675.30	39.45123	(14011709)
653976.78	4193675.30	41.54202	(17021308)	654276.78	4193675.30	45.03408	(17021308)
654576.78	4193675.30	51.17207	(15010804)	654876.78	4193675.30	65.84983	(16010309)
655176.78	4193675.30	90.49919	(13011517)	655476.78	4193675.30	179.04313	(17011609)
655776.78	4193675.30	380.42984	(17012520)	656076.78	4193675.30	165.95466	(17012908)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE5 ***

INCLUDING SOURCE(S): L0010946 , L0010947 , L0010948 , L0010949 , L0010950 ,
L0010951 , L0010952 , L0010953 , L0010954 , L0010955 , L0010956 , L0010957 , L0010958 ,
L0010959 , L0010960 , L0010961 , L0010962 , L0010963 , L0010964 , L0010965 , L0010966 ,
L0010967 , L0010968 , L0010969 , L0010970 , L0010971 , L0010972 , L0010973 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
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656376.78	4193675.30	99.75746 (17022501)	656676.78	4193675.30	83.88388 (17011509)
653676.78	4193975.30	39.24595 (14011709)	653976.78	4193975.30	42.91810 (17021308)
654276.78	4193975.30	50.30584 (17021308)	654576.78	4193975.30	59.12942 (17021308)
654876.78	4193975.30	73.12918 (17021308)	655176.78	4193975.30	102.04810 (14021408)
655476.78	4193975.30	246.24624 (17011609)	655776.78	4193975.30	458.78267 (17020801)
656076.78	4193975.30	151.46493 (17011509)	656376.78	4193975.30	98.61722 (17011509)
656676.78	4193975.30	54.99211 (17121906)	653676.78	4194275.30	38.08916 (17121420)
653976.78	4194275.30	43.37433 (17121420)	654276.78	4194275.30	50.28872 (17121203)
654576.78	4194275.30	62.14949 (17021308)	654876.78	4194275.30	80.73272 (17021308)
655176.78	4194275.30	121.67961 (16010309)	655476.78	4194275.30	384.33915 (17011609)
655776.78	4194275.30	249.79749 (17011509)	656076.78	4194275.30	113.66019 (17011509)
656376.78	4194275.30	66.29565 (14022208)	656676.78	4194275.30	52.23235 (14022208)
653676.78	4194575.30	41.61545 (17011121)	653976.78	4194575.30	47.61931 (17011121)
654276.78	4194575.30	55.72601 (17011121)	654576.78	4194575.30	69.16990 (17122608)
654876.78	4194575.30	94.15142 (17020404)	655176.78	4194575.30	151.44892 (17121402)
655476.78	4194575.30	1148.93361 (17120219)	655776.78	4194575.30	170.10707 (17022508)
656076.78	4194575.30	81.69757 (14022208)	656376.78	4194575.30	60.75042 (14022208)
656676.78	4194575.30	48.96574 (14022208)	653676.78	4194875.30	54.57076 (16012009)
653976.78	4194875.30	64.06064 (16012009)	654276.78	4194875.30	67.47023 (16012009)
654576.78	4194875.30	78.26341 (17020404)	654876.78	4194875.30	105.65814 (17121402)
655176.78	4194875.30	210.06080 (17122909)	655476.78	4194875.30	349.37466 (17012924)
655776.78	4194875.30	134.03415 (17022508)	656076.78	4194875.30	74.31833 (17022706)
656376.78	4194875.30	54.96663 (14011317)	656676.78	4194875.30	45.64906 (14011317)
653676.78	4195175.30	59.17590 (16012009)	653976.78	4195175.30	54.16337 (17020404)
654276.78	4195175.30	59.55387 (17121402)	654576.78	4195175.30	71.46272 (17120208)
654876.78	4195175.30	116.30770 (17122909)	655176.78	4195175.30	213.66757 (17022607)
655476.78	4195175.30	185.93682 (17120206)	655776.78	4195175.30	109.69383 (17022508)
656076.78	4195175.30	68.26057 (17021405)	656376.78	4195175.30	51.53292 (17122923)
656676.78	4195175.30	45.69667 (13121109)	653676.78	4195475.30	41.57794 (17043004)
653976.78	4195475.30	44.14317 (17120624)	654276.78	4195475.30	55.49797 (17123024)
654576.78	4195475.30	75.77554 (17122909)	654876.78	4195475.30	120.28085 (13011909)
655176.78	4195475.30	133.05248 (17120705)	655476.78	4195475.30	124.18082 (17120206)
655776.78	4195475.30	86.67662 (17012905)	656076.78	4195475.30	65.39797 (17022508)
656376.78	4195475.30	50.31749 (17022706)	656676.78	4195475.30	46.37325 (13121109)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE6 ***

INCLUDING SOURCE(S): L0011395 , L0011396 , L0011397 , L0011398 , L0011399 ,
L0011400 , L0011401 , L0011402 , L0011403 , L0011404 , L0011405 , L0011406 , L0011407 ,
L0011408 , L0011409 , L0011410 , L0011411 , L0011412 , L0011413 , L0011414 , L0011415 ,
L0011416 , L0011417 , L0011418 , L0011419 , L0011420 , L0011421 , L0011422 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	175.47101 (15041307)	656126.40	4192764.99	175.55707 (15041307)

656103.65	4192731.89	163.15209	(15041307)	656093.30	4192690.51	152.32948	(15041307)
656217.44	4192771.20	144.71487	(15041307)	656279.50	4192760.85	121.77680	(17011203)
656341.57	4192727.75	128.02099	(17013024)	656366.40	4192707.06	124.56702	(17013024)
653815.06	4193437.51	76.71236	(14011709)	653776.43	4193429.79	75.95788	(14011709)
653798.32	4193413.05	74.35366	(14011709)	653708.18	4193118.16	53.15583	(17021420)
653730.07	4193102.71	53.29070	(17021420)	653753.25	4193085.97	53.12478	(17123002)
653800.90	4193053.77	54.17676	(17013106)	653882.02	4192964.92	54.72385	(17121504)
653907.78	4192962.34	55.62242	(17120517)	653945.12	4192954.62	57.41017	(17120517)
654067.45	4192886.37	55.39335	(17021403)	654108.66	4192861.90	56.48787	(17123107)
654140.85	4192841.30	56.93307	(13012121)	654376.51	4192702.22	61.29811	(13021704)
654399.69	4192673.89	61.50313	(14021223)	654024.74	4193417.88	68.23285	(17021308)
653831.84	4193501.47	77.70136	(14011709)	653915.64	4193528.15	79.45590	(14011709)
653813.62	4193608.32	58.92301	(17012823)	653676.78	4192475.30	42.48279	(13012105)
653976.78	4192475.30	48.19141	(14120608)	654276.78	4192475.30	55.09797	(13013108)
654576.78	4192475.30	60.86515	(15122802)	654876.78	4192475.30	70.66067	(14021122)
655176.78	4192475.30	104.75422	(14011509)	655476.78	4192475.30	87.54075	(16012703)
655776.78	4192475.30	105.97859	(17011609)	656076.78	4192475.30	118.19871	(15041307)
656376.78	4192475.30	99.16092	(17013024)	656676.78	4192475.30	95.88064	(17122518)
653676.78	4192775.30	48.76656	(17120517)	653976.78	4192775.30	51.87455	(17123107)
654276.78	4192775.30	59.58411	(14120608)	654576.78	4192775.30	70.64494	(13013108)
654876.78	4192775.30	81.33318	(15122802)	655176.78	4192775.30	95.51403	(13123108)
655476.78	4192775.30	113.47285	(17122918)	655776.78	4192775.30	133.44675	(17011609)
656076.78	4192775.30	151.15096	(15041307)	656376.78	4192775.30	132.73055	(17012520)
656676.78	4192775.30	113.90361	(17012903)	653676.78	4193075.30	51.61834	(17021420)
653976.78	4193075.30	59.76901	(17121504)	654276.78	4193075.30	66.01127	(14021108)
654576.78	4193075.30	78.27675	(13010908)	654876.78	4193075.30	94.86966	(13013108)
655176.78	4193075.30	108.78519	(13012124)	655476.78	4193075.30	138.55863	(14011509)
655776.78	4193075.30	171.63646	(14012501)	656076.78	4193075.30	199.51422	(15041307)
656376.78	4193075.30	177.75065	(17012804)	656676.78	4193075.30	127.70212	(17011208)
653676.78	4193375.30	72.37106	(14011709)	653976.78	4193375.30	65.51056	(17021308)
654276.78	4193375.30	75.36653	(17021420)	654576.78	4193375.30	91.15664	(17121504)
654876.78	4193375.30	105.73629	(17123107)	655176.78	4193375.30	136.01582	(15010508)
655476.78	4193375.30	183.70292	(13012423)	655776.78	4193375.30	251.53035	(16012703)
656076.78	4193375.30	286.48564	(17120822)	656376.78	4193375.30	243.77068	(17012903)
656676.78	4193375.30	169.16397	(17012908)	653676.78	4193675.30	55.20171	(17013105)
653976.78	4193675.30	65.12165	(17013105)	654276.78	4193675.30	80.61935	(14011709)
654576.78	4193675.30	95.48230	(14011709)	654876.78	4193675.30	121.54930	(17021308)
655176.78	4193675.30	158.83522	(17121504)	655476.78	4193675.30	216.53586	(13010906)
655776.78	4193675.30	376.15616	(15021203)	656076.78	4193675.30	630.37250	(17122917)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** *** 12:37:56

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE6 ***

INCLUDING SOURCE(S): L0011395 , L0011396 , L0011397 , L0011398 , L0011399 ,
L0011400 , L0011401 , L0011402 , L0011403 , L0011404 , L0011405 , L0011406 , L0011407 ,
L0011408 , L0011409 , L0011410 , L0011411 , L0011412 , L0011413 , L0011414 , L0011415 ,
L0011416 , L0011417 , L0011418 , L0011419 , L0011420 , L0011421 , L0011422 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	302.27569	(17012908)	656676.78	4193675.30	211.02453 (17011509)
653676.78	4193975.30	54.83071	(17013008)	653976.78	4193975.30	64.15798 (17121807)
654276.78	4193975.30	80.27130	(17121807)	654576.78	4193975.30	99.21639 (17121807)
654876.78	4193975.30	126.85775	(17022506)	655176.78	4193975.30	169.20980 (17011605)
655476.78	4193975.30	253.76706	(17021308)	655776.78	4193975.30	428.06969 (17021308)
656076.78	4193975.30	1126.71503	(17012903)	656376.78	4193975.30	332.65323 (17011509)
656676.78	4193975.30	157.24105	(17121319)	653676.78	4194275.30	58.18957 (17013107)
653976.78	4194275.30	67.71790	(17013107)	654276.78	4194275.30	81.66328 (17122903)
654576.78	4194275.30	102.08302	(17011121)	654876.78	4194275.30	131.95601 (17121322)
655176.78	4194275.30	170.77766	(17121322)	655476.78	4194275.30	254.12562 (17122608)
655776.78	4194275.30	459.59634	(17121402)	656076.78	4194275.30	895.06996 (17022508)
656376.78	4194275.30	282.12697	(14011317)	656676.78	4194275.30	169.07680 (13120917)
653676.78	4194575.30	51.26782	(17120702)	653976.78	4194575.30	60.42796 (17122608)
654276.78	4194575.30	77.86694	(17122608)	654576.78	4194575.30	106.98108 (16012009)
654876.78	4194575.30	127.24350	(17121007)	655176.78	4194575.30	159.92320 (17121402)
655476.78	4194575.30	195.49817	(17123024)	655776.78	4194575.30	376.70858 (17022607)
656076.78	4194575.30	502.55304	(17120207)	656376.78	4194575.30	262.74603 (17122321)
656676.78	4194575.30	169.77652	(17121119)	653676.78	4194875.30	78.09671 (16012009)
653976.78	4194875.30	88.75786	(16012009)	654276.78	4194875.30	77.15625 (17020404)
654576.78	4194875.30	85.99083	(17121402)	654876.78	4194875.30	89.69973 (17120624)
655176.78	4194875.30	116.08925	(17123024)	655476.78	4194875.30	153.20379 (13011909)
655776.78	4194875.30	206.98008	(15021408)	656076.78	4194875.30	229.31095 (17021222)
656376.78	4194875.30	191.94571	(17121904)	656676.78	4194875.30	146.48934 (17122321)
653676.78	4195175.30	53.52832	(17020404)	653976.78	4195175.30	55.72579 (17120905)
654276.78	4195175.30	58.10225	(17043004)	654576.78	4195175.30	62.79536 (17120208)
654876.78	4195175.30	74.92643	(17123024)	655176.78	4195175.30	96.01397 (17020506)
655476.78	4195175.30	130.50495	(17022607)	655776.78	4195175.30	152.69619 (17012717)
656076.78	4195175.30	154.00973	(17012720)	656376.78	4195175.30	147.80735 (17022508)
656676.78	4195175.30	114.43196	(17022324)	653676.78	4195475.30	43.24820 (17043004)
653976.78	4195475.30	42.42326	(17120624)	654276.78	4195475.30	46.26541 (15022507)
654576.78	4195475.30	53.37443	(14121304)	654876.78	4195475.30	68.83658 (17020506)
655176.78	4195475.30	101.31293	(13011909)	655476.78	4195475.30	97.19603 (17120219)
655776.78	4195475.30	103.58069	(17122901)	656076.78	4195475.30	114.86596 (17012720)
656376.78	4195475.30	105.44746	(17121401)	656676.78	4195475.30	89.89800 (17121904)

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*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE7 ***

INCLUDING SOURCE(S): L0011551 , L0011552 , L0011553 , L0011554 , L0011555 ,
L0011556 , L0011557 , L0011558 , L0011559 , L0011560 , L0011561 , L0011562 , L0011563 ,
L0011564 , L0011565 , L0011566 , L0011567 , L0011568 , L0011569 , L0011570 , L0011571 ,
L0011572 , L0011573 , L0011574 , L0011575 , L0011576 , L0011577 , L0011578 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656165.71	4192787.75	140.32902	(17011609)	656126.40	4192764.99	140.85690	(17011609)
656103.65	4192731.89	133.68459	(17011609)	656093.30	4192690.51	127.53110	(17011609)
656217.44	4192771.20	131.56829	(17122820)	656279.50	4192760.85	146.16558	(17123009)
656341.57	4192727.75	149.71803	(17123009)	656366.40	4192707.06	136.52246	(17123009)
653815.06	4193437.51	66.81978	(14011709)	653776.43	4193429.79	65.29284	(14011709)
653798.32	4193413.05	69.64620	(14011709)	653708.18	4193118.16	48.00992	(17021308)
653730.07	4193102.71	46.91923	(17021308)	653753.25	4193085.97	46.34169	(17120203)
653800.90	4193053.77	49.16965	(17120203)	653882.02	4192964.92	49.60279	(17123002)
653907.78	4192962.34	50.04307	(17013106)	653945.12	4192954.62	51.19110	(17013106)
654067.45	4192886.37	53.16973	(17121504)	654108.66	4192861.90	54.19340	(17120517)
654140.85	4192841.30	54.98330	(17120517)	654376.51	4192702.22	55.40188	(13012105)
654399.69	4192673.89	55.55540	(13010908)	654024.74	4193417.88	79.76108	(14011709)
653831.84	4193501.47	54.11954	(14011709)	653915.64	4193528.15	55.01227	(17012823)
653813.62	4193608.32	52.77480	(17013105)	653676.78	4192475.30	38.71726	(15010907)
653976.78	4192475.30	43.14426	(13012121)	654276.78	4192475.30	49.48817	(14120608)
654576.78	4192475.30	56.05308	(15010508)	654876.78	4192475.30	63.25148	(14022101)
655176.78	4192475.30	72.72234	(13012423)	655476.78	4192475.30	101.94197	(14011509)
655776.78	4192475.30	88.82891	(13012005)	656076.78	4192475.30	107.25139	(17011609)
656376.78	4192475.30	108.77104	(17011719)	656676.78	4192475.30	97.47627	(17013024)
653676.78	4192775.30	42.79968	(17013106)	653976.78	4192775.30	50.36172	(17120517)
654276.78	4192775.30	52.91663	(17021403)	654576.78	4192775.30	62.02345	(13010908)
654876.78	4192775.30	72.53314	(15010508)	655176.78	4192775.30	83.60306	(15122802)
655476.78	4192775.30	99.38801	(13123108)	655776.78	4192775.30	118.04987	(17122918)
656076.78	4192775.30	126.96445	(17011609)	656376.78	4192775.30	142.82020	(17011719)
656676.78	4192775.30	133.64467	(17012520)	653676.78	4193075.30	45.08035	(17021308)
653976.78	4193075.30	53.67533	(17021420)	654276.78	4193075.30	60.27652	(17121504)
654576.78	4193075.30	71.89502	(17120517)	654876.78	4193075.30	81.81302	(13012105)
655176.78	4193075.30	98.73855	(14021223)	655476.78	4193075.30	118.95100	(15122802)
655776.78	4193075.30	145.77780	(15022608)	656076.78	4193075.30	174.21287	(15010901)
656376.78	4193075.30	195.32919	(17011719)	656676.78	4193075.30	184.16652	(17122319)
653676.78	4193375.30	68.03259	(14011709)	653976.78	4193375.30	77.98392	(14011709)
654276.78	4193375.30	68.42031	(17021308)	654576.78	4193375.30	79.06855	(17120203)
654876.78	4193375.30	94.97966	(17121504)	655176.78	4193375.30	112.20042	(17021403)
655476.78	4193375.30	144.95864	(13021704)	655776.78	4193375.30	196.54479	(15010507)
656076.78	4193375.30	258.64733	(14021105)	656376.78	4193375.30	300.64905	(15011509)
656676.78	4193375.30	262.78904	(17012903)	653676.78	4193675.30	49.85494	(17022506)
653976.78	4193675.30	55.32775	(17013105)	654276.78	4193675.30	68.92840	(17013105)
654576.78	4193675.30	82.56208	(17012823)	654876.78	4193675.30	103.46236	(14011709)
655176.78	4193675.30	136.36540	(17021308)	655476.78	4193675.30	177.26580	(17121504)
655776.78	4193675.30	248.31005	(13022803)	656076.78	4193675.30	407.91345	(17121508)

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*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
SLINE7 ***

INCLUDING SOURCE(S): L0011551 , L0011552 , L0011553 , L0011554 , L0011555 ,
L0011556 , L0011557 , L0011558 , L0011559 , L0011560 , L0011561 , L0011562 , L0011563 ,
L0011564 , L0011565 , L0011566 , L0011567 , L0011568 , L0011569 , L0011570 , L0011571 ,
L0011572 , L0011573 , L0011574 , L0011575 , L0011576 , L0011577 , L0011578 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)
656376.78	4193675.30	660.37880 (17122917)	656676.78	4193675.30	342.02400 (17012908)
653676.78	4193975.30	50.24848 (17013008)	653976.78	4193975.30	58.36432 (17013008)
654276.78	4193975.30	68.14125 (17013008)	654576.78	4193975.30	81.79282 (17121807)
654876.78	4193975.30	106.44753 (17121807)	655176.78	4193975.30	137.29162 (17121807)
655476.78	4193975.30	193.04833 (17022506)	655776.78	4193975.30	283.14002 (17121823)
656076.78	4193975.30	514.88296 (17021308)	656376.78	4193975.30	1613.95212 (17122318)
656676.78	4193975.30	358.67987 (17011509)	653676.78	4194275.30	51.69624 (17013107)
653976.78	4194275.30	59.42333 (17013107)	654276.78	4194275.30	71.02155 (17122903)
654576.78	4194275.30	86.83007 (17122903)	654876.78	4194275.30	109.16797 (17121322)
655176.78	4194275.30	142.27938 (17121322)	655476.78	4194275.30	181.20447 (17120702)
655776.78	4194275.30	293.66089 (17011201)	656076.78	4194275.30	526.13098 (17121402)
656376.78	4194275.30	1368.34199 (17022508)	656676.78	4194275.30	355.09103 (14011317)
653676.78	4194575.30	48.35861 (17120702)	653976.78	4194575.30	51.99339 (17013104)
654276.78	4194575.30	63.81641 (17122608)	654576.78	4194575.30	79.91248 (17122608)
654876.78	4194575.30	114.69255 (16012009)	655176.78	4194575.30	136.99300 (17121007)
655476.78	4194575.30	163.39315 (17121402)	655776.78	4194575.30	205.27389 (17123024)
656076.78	4194575.30	362.41824 (17022607)	656376.78	4194575.30	433.84939 (16010408)
656676.78	4194575.30	308.06983 (17012601)	653676.78	4194875.30	60.58399 (16012009)
653976.78	4194875.30	82.99092 (16012009)	654276.78	4194875.30	89.48323 (16012009)
654576.78	4194875.30	80.42489 (17020404)	654876.78	4194875.30	87.43809 (17120905)
655176.78	4194875.30	91.82512 (17120624)	655476.78	4194875.30	117.17678 (17123024)
655776.78	4194875.30	153.51014 (13011909)	656076.78	4194875.30	197.63198 (17120705)
656376.78	4194875.30	239.08166 (17012720)	656676.78	4194875.30	195.62134 (17122223)
653676.78	4195175.30	61.50919 (16012009)	653976.78	4195175.30	54.38935 (17020404)
654276.78	4195175.30	57.24234 (17120905)	654576.78	4195175.30	57.22652 (17043004)
654876.78	4195175.30	63.26774 (17120208)	655176.78	4195175.30	74.71996 (17010902)
655476.78	4195175.30	95.71880 (17020506)	655776.78	4195175.30	128.08162 (17022607)
656076.78	4195175.30	145.66508 (17012717)	656376.78	4195175.30	160.92670 (17012720)
656676.78	4195175.30	139.13915 (17022508)	653676.78	4195475.30	41.10389 (17120905)
653976.78	4195475.30	43.29528 (17043004)	654276.78	4195475.30	42.60192 (17120624)
654576.78	4195475.30	46.57316 (15022507)	654876.78	4195475.30	53.67352 (14121304)
655176.78	4195475.30	68.68064 (17020506)	655476.78	4195475.30	102.05761 (13011909)
655776.78	4195475.30	97.18198 (17120219)	656076.78	4195475.30	103.15154 (17122622)
656376.78	4195475.30	116.05778 (17012720)	656676.78	4195475.30	102.12742 (17121401)

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*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE8 ***

INCLUDING SOURCE(S): L0011673 , L0011674 , L0011675 , L0011676 , L0011677 ,
L0011678 , L0011679 , L0011680 , L0011681 , L0011682 , L0011683 , L0011684 , L0011685 ,
L0011686 , L0011687 , L0011688 , L0011689 , L0011690 , L0011691 , L0011692 , L0011693 ,
L0011694 , L0011695 , L0011696 , L0011697 , L0011698 , L0011699 , L0011700 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	197.72459 (17123009)	656126.40	4192764.99	182.11140 (17123009)
656103.65	4192731.89	157.89150 (17123009)	656093.30	4192690.51	142.55428 (17123009)
656217.44	4192771.20	170.42123 (17011719)	656279.50	4192760.85	199.29420 (15041307)
656341.57	4192727.75	169.47345 (15041307)	656366.40	4192707.06	163.27233 (17122917)
653815.06	4193437.51	61.11690 (17013105)	653776.43	4193429.79	59.71377 (17013105)
653798.32	4193413.05	60.07811 (17013105)	653708.18	4193118.16	75.23082 (14011709)
653730.07	4193102.71	71.20613 (14011709)	653753.25	4193085.97	65.70223 (14011709)
653800.90	4193053.77	58.71702 (17021308)	653882.02	4192964.92	58.81127 (17120203)
653907.78	4192962.34	59.38982 (17120203)	653945.12	4192954.62	60.62422 (17021420)
654067.45	4192886.37	62.56441 (17013106)	654108.66	4192861.90	64.15158 (17121504)
654140.85	4192841.30	65.01000 (17121504)	654376.51	4192702.22	64.94633 (17123107)
654399.69	4192673.89	66.09041 (13012105)	654024.74	4193417.88	67.86227 (17012823)
653831.84	4193501.47	58.25509 (17022506)	653915.64	4193528.15	62.85213 (17022506)
653813.62	4193608.32	59.88644 (17121223)	653676.78	4192475.30	47.76278 (17120517)
653976.78	4192475.30	50.25072 (17123107)	654276.78	4192475.30	57.44737 (13010908)
654576.78	4192475.30	66.86899 (15010508)	654876.78	4192475.30	76.69814 (14022101)
655176.78	4192475.30	89.13651 (14021122)	655476.78	4192475.30	118.88880 (14011509)
655776.78	4192475.30	110.31729 (17011302)	656076.78	4192475.30	114.07446 (17012904)
656376.78	4192475.30	147.52796 (15041307)	656676.78	4192475.30	118.21688 (17012804)
653676.78	4192775.30	50.76204 (17123002)	653976.78	4192775.30	59.02617 (17121504)
654276.78	4192775.30	64.61894 (14021108)	654576.78	4192775.30	75.98439 (13012105)
654876.78	4192775.30	90.27343 (14021223)	655176.78	4192775.30	106.62171 (15122802)
655476.78	4192775.30	126.51749 (17121508)	655776.78	4192775.30	145.14575 (13012005)
656076.78	4192775.30	160.16371 (17122820)	656376.78	4192775.30	166.67625 (17122917)
656676.78	4192775.30	151.55857 (17122920)	653676.78	4193075.30	67.84834 (14011709)
653976.78	4193075.30	61.36968 (17021308)	654276.78	4193075.30	74.67345 (17021420)
654576.78	4193075.30	90.33531 (17121504)	654876.78	4193075.30	103.72301 (17123107)
655176.78	4193075.30	131.50802 (13021704)	655476.78	4193075.30	160.15534 (15122802)
655776.78	4193075.30	217.69719 (17123007)	656076.78	4193075.30	242.87329 (17122820)
656376.78	4193075.30	249.53044 (17013024)	656676.78	4193075.30	204.33360 (17020801)
653676.78	4193375.30	55.57629 (17013105)	653976.78	4193375.30	68.34514 (14011709)
654276.78	4193375.30	96.70375 (14011709)	654576.78	4193375.30	101.48799 (17021308)
654876.78	4193375.30	126.16238 (17120203)	655176.78	4193375.30	167.14084 (17120517)
655476.78	4193375.30	218.66243 (14120608)	655776.78	4193375.30	318.55915 (13012423)
656076.78	4193375.30	470.05784 (17011609)	656376.78	4193375.30	425.27645 (17122620)
656676.78	4193375.30	272.97599 (17012908)	653676.78	4193675.30	57.28575 (17121807)
653976.78	4193675.30	67.29355 (17121807)	654276.78	4193675.30	80.31729 (17122902)
654576.78	4193675.30	105.25212 (17022506)	654876.78	4193675.30	134.89102 (17013105)
655176.78	4193675.30	185.67143 (17121207)	655476.78	4193675.30	294.26079 (17021308)
655776.78	4193675.30	470.46318 (17021403)	656076.78	4193675.30	1068.17712 (14021105)

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*** AERMET - VERSION 18081 ***

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE8 ***

INCLUDING SOURCE(S): L0011673 , L0011674 , L0011675 , L0011676 , L0011677 ,
L0011678 , L0011679 , L0011680 , L0011681 , L0011682 , L0011683 , L0011684 , L0011685 ,

L0011686 , L0011687 , L0011688 , L0011689 , L0011690 , L0011691 , L0011692 , L0011693 ,
L0011694 , L0011695 , L0011696 , L0011697 , L0011698 , L0011699 , L0011700 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656376.78	4193675.30	745.42771	(17012908)	656676.78	4193675.30	336.19971 (17011509)
653676.78	4193975.30	57.57265	(17122521)	653976.78	4193975.30	68.50652 (17122521)
654276.78	4193975.30	83.44709	(17120922)	654576.78	4193975.30	105.47023 (17120922)
654876.78	4193975.30	139.38739	(17013107)	655176.78	4193975.30	198.94336 (17013107)
655476.78	4193975.30	307.78753	(17013107)	655776.78	4193975.30	577.91136 (17121322)
656076.78	4193975.30	1618.72679	(17122609)	656376.78	4193975.30	793.20649 (13032807)
656676.78	4193975.30	351.45519	(14022208)	653676.78	4194275.30	56.97368 (17121322)
653976.78	4194275.30	68.02929	(17120702)	654276.78	4194275.30	77.94544 (17120702)
654576.78	4194275.30	92.89953	(17122608)	654876.78	4194275.30	128.22803 (17123105)
655176.78	4194275.30	183.66639	(17120707)	655476.78	4194275.30	257.58543 (17121402)
655776.78	4194275.30	349.77994	(17123024)	656076.78	4194275.30	670.17943 (17012717)
656376.78	4194275.30	550.07111	(17021405)	656676.78	4194275.30	306.38831 (17121119)
653676.78	4194575.30	53.15348	(17123105)	653976.78	4194575.30	79.52760 (16012009)
654276.78	4194575.30	104.41012	(16012009)	654576.78	4194575.30	99.13834 (17121007)
654876.78	4194575.30	113.23504	(17120905)	655176.78	4194575.30	120.53127 (17120624)
655476.78	4194575.30	152.90476	(14121304)	655776.78	4194575.30	218.87111 (17122724)
656076.78	4194575.30	305.84913	(17020802)	656376.78	4194575.30	284.53639 (17022508)
656676.78	4194575.30	222.22178	(17012601)	653676.78	4194875.30	74.69372 (16012009)
653976.78	4194875.30	62.28836	(17020404)	654276.78	4194875.30	67.99042 (17120905)
654576.78	4194875.30	72.11540	(17043004)	654876.78	4194875.30	76.77894 (17120208)
655176.78	4194875.30	93.43147	(17123021)	655476.78	4194875.30	134.93428 (13011909)
655776.78	4194875.30	163.24871	(17120219)	656076.78	4194875.30	181.32985 (17120618)
656376.78	4194875.30	180.56837	(17120207)	656676.78	4194875.30	150.13172 (17121904)
653676.78	4195175.30	46.61200	(17120905)	653976.78	4195175.30	50.89146 (17043004)
654276.78	4195175.30	49.41850	(17120624)	654576.78	4195175.30	54.43690 (15022507)
654876.78	4195175.30	65.27052	(17123021)	655176.78	4195175.30	79.35595 (17123104)
655476.78	4195175.30	96.15926	(17022607)	655776.78	4195175.30	100.75316 (15021408)
656076.78	4195175.30	117.71394	(17121308)	656376.78	4195175.30	119.77015 (17012905)
656676.78	4195175.30	111.68253	(17022508)	653676.78	4195475.30	33.27879 (17120624)
653976.78	4195475.30	36.90119	(17120208)	654276.78	4195475.30	40.89624 (17123024)
654576.78	4195475.30	48.93438	(17123021)	654876.78	4195475.30	59.32344 (17020506)
655176.78	4195475.30	98.19560	(13011909)	655476.78	4195475.30	81.88748 (17120619)
655776.78	4195475.30	81.57781	(17012717)	656076.78	4195475.30	89.67689 (14012009)
656376.78	4195475.30	81.35296	(16010408)	656676.78	4195475.30	80.63004 (17022508)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE9 ***

INCLUDING SOURCE(S): L0011741 , L0011742 , L0011743 , L0011744 , L0011745 ,
L0011746 , L0011747 , L0011748 , L0011749 , L0011750 , L0011751 , L0011752 , L0011753 ,
L0011754 , L0011755 , L0011756 , L0011757 , L0011758 , L0011759 , L0011760 , L0011761 ,

L0011762 , L0011763 , L0011764 , L0011765 , L0011766 , L0011767 , L0011768 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656165.71	4192787.75	168.45098	(17012520)	656126.40	4192764.99	164.92449 (17013024)
656103.65	4192731.89	148.11632	(17013024)	656093.30	4192690.51	144.31449 (17122917)
656217.44	4192771.20	154.57486	(17122319)	656279.50	4192760.85	158.49323 (17012804)
656341.57	4192727.75	150.81774	(17122518)	656366.40	4192707.06	146.44985 (17122920)
653815.06	4193437.51	73.12908	(17012823)	653776.43	4193429.79	71.17160 (17012823)
653798.32	4193413.05	72.10109	(17012823)	653708.18	4193118.16	66.06761 (17021308)
653730.07	4193102.71	64.29625	(17021308)	653753.25	4193085.97	64.90066 (17120203)
653800.90	4193053.77	68.03750	(17120203)	653882.02	4192964.92	69.30424 (17013106)
653907.78	4192962.34	69.58770	(17013106)	653945.12	4192954.62	70.84587 (17121504)
654067.45	4192886.37	75.57909	(17120517)	654108.66	4192861.90	72.07704 (14021108)
654140.85	4192841.30	71.67329	(15010907)	654376.51	4192702.22	78.76747 (13010906)
654399.69	4192673.89	78.44694	(13021704)	654024.74	4193417.88	96.68442 (14011709)
653831.84	4193501.47	75.46688	(17013105)	653915.64	4193528.15	80.05139 (17013105)
653813.62	4193608.32	75.71279	(17022506)	653676.78	4192475.30	50.71570 (17123107)
653976.78	4192475.30	57.42391	(17020505)	654276.78	4192475.30	67.65761 (15010508)
654576.78	4192475.30	76.34142	(17120906)	654876.78	4192475.30	89.50953 (14021122)
655176.78	4192475.30	116.84827	(14011509)	655476.78	4192475.30	111.87443 (17011302)
655776.78	4192475.30	115.62856	(17123009)	656076.78	4192475.30	140.70087 (15041307)
656376.78	4192475.30	118.24313	(17012804)	656676.78	4192475.30	104.90389 (17020801)
653676.78	4192775.30	59.54171	(17121504)	653976.78	4192775.30	64.75723 (14021108)
654276.78	4192775.30	76.49215	(13012105)	654576.78	4192775.30	90.93548 (14021223)
654876.78	4192775.30	107.94770	(15122802)	655176.78	4192775.30	128.02215 (13020306)
655476.78	4192775.30	146.07515	(13012005)	655776.78	4192775.30	157.93159 (17012904)
656076.78	4192775.30	159.22768	(17122917)	656376.78	4192775.30	147.22553 (17122920)
656676.78	4192775.30	122.79139	(17120120)	653676.78	4193075.30	61.18350 (17021308)
653976.78	4193075.30	75.16680	(17021420)	654276.78	4193075.30	90.89252 (17121504)
654576.78	4193075.30	105.26656	(17123107)	654876.78	4193075.30	132.89885 (13021704)
655176.78	4193075.30	158.99450	(16022407)	655476.78	4193075.30	218.61223 (17123007)
655776.78	4193075.30	245.07048	(17122820)	656076.78	4193075.30	245.32817 (17013024)
656376.78	4193075.30	197.23550	(17020801)	656676.78	4193075.30	142.35582 (17120121)
653676.78	4193375.30	70.48757	(14011709)	653976.78	4193375.30	98.88256 (14011709)
654276.78	4193375.30	103.40599	(17021308)	654576.78	4193375.30	128.88496 (17021420)
654876.78	4193375.30	171.99608	(17120517)	655176.78	4193375.30	224.83021 (13010906)
655476.78	4193375.30	321.64434	(14021122)	655776.78	4193375.30	471.95578 (17011609)
656076.78	4193375.30	422.57449	(17122620)	656376.78	4193375.30	266.60042 (17012908)
656676.78	4193375.30	191.30994	(17121320)	653676.78	4193675.30	68.05415 (17122902)
653976.78	4193675.30	82.26180	(17022506)	654276.78	4193675.30	106.58480 (17022506)
654576.78	4193675.30	139.48269	(17013105)	654876.78	4193675.30	192.05688 (17121207)
655176.78	4193675.30	302.28265	(17021308)	655476.78	4193675.30	490.61797 (13012121)
655776.78	4193675.30	1093.65707	(15012509)	656076.78	4193675.30	747.00007 (17012908)

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*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

SLINE9 ***

INCLUDING SOURCE(S): L0011741 , L0011742 , L0011743 , L0011744 , L0011745 ,
L0011746 , L0011747 , L0011748 , L0011749 , L0011750 , L0011751 , L0011752 , L0011753 ,
L0011754 , L0011755 , L0011756 , L0011757 , L0011758 , L0011759 , L0011760 , L0011761 ,
L0011762 , L0011763 , L0011764 , L0011765 , L0011766 , L0011767 , L0011768 , ... ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
---------------------------	-------------	--------------------	-------------	-------------	------

656376.78	4193675.30	324.20002 (17011509)	656676.78	4193675.30	171.67414 (17011303)
653676.78	4193975.30	69.42824 (17122521)	653976.78	4193975.30	84.70128 (17122521)
654276.78	4193975.30	107.76844 (17120922)	654576.78	4193975.30	142.37649 (17120922)
654876.78	4193975.30	204.91666 (17013107)	655176.78	4193975.30	321.93273 (17013107)
655476.78	4193975.30	622.16062 (17121322)	655776.78	4193975.30	1882.39180 (17122609)
656076.78	4193975.30	811.18042 (14021120)	656376.78	4193975.30	355.44859 (14022208)
656676.78	4193975.30	207.60698 (14022208)	653676.78	4194275.30	68.86095 (17120702)
653976.78	4194275.30	79.21971 (17120702)	654276.78	4194275.30	94.43027 (17122608)
654576.78	4194275.30	131.52389 (17123105)	654876.78	4194275.30	189.43680 (17120707)
655176.78	4194275.30	264.98977 (17121402)	655476.78	4194275.30	359.92776 (17123024)
655776.78	4194275.30	698.23608 (17012717)	656076.78	4194275.30	544.55557 (17022706)
656376.78	4194275.30	307.08106 (17121119)	656676.78	4194275.30	177.03957 (13020908)
653676.78	4194575.30	80.33930 (16012009)	653976.78	4194575.30	105.51784 (16012009)
654276.78	4194575.30	100.65769 (17121007)	654576.78	4194575.30	115.80851 (17120905)
654876.78	4194575.30	122.67911 (17120624)	655176.78	4194575.30	156.99428 (14121304)
655476.78	4194575.30	219.18509 (17121506)	655776.78	4194575.30	312.20161 (17120618)
656076.78	4194575.30	292.46320 (17022508)	656376.78	4194575.30	216.59921 (17012601)
656676.78	4194575.30	141.87681 (13121217)	653676.78	4194875.30	62.75226 (17020404)
653976.78	4194875.30	68.98550 (17120905)	654276.78	4194875.30	72.19133 (17043004)
654576.78	4194875.30	77.58766 (17120208)	654876.78	4194875.30	95.82182 (17123021)
655176.78	4194875.30	139.54468 (13011909)	655476.78	4194875.30	161.90857 (17120219)
655776.78	4194875.30	177.52370 (17120618)	656076.78	4194875.30	174.70291 (17120207)
656376.78	4194875.30	151.88638 (17021405)	656676.78	4194875.30	128.18882 (17122321)
653676.78	4195175.30	51.18848 (17043004)	653976.78	4195175.30	49.74573 (17120624)
654276.78	4195175.30	54.88679 (15022507)	654576.78	4195175.30	66.45300 (17123021)
654876.78	4195175.30	82.56738 (13011909)	655176.78	4195175.30	99.36732 (17022607)
655476.78	4195175.30	102.70423 (15021408)	655776.78	4195175.30	119.49220 (17121308)
656076.78	4195175.30	121.82512 (17120207)	656376.78	4195175.30	108.56726 (17022508)
656676.78	4195175.30	95.70356 (17022324)	653676.78	4195475.30	37.27334 (17120208)
653976.78	4195475.30	41.57605 (17123024)	654276.78	4195475.30	49.61766 (17123021)
654576.78	4195475.30	59.60017 (17020506)	654876.78	4195475.30	97.46667 (13011909)
655176.78	4195475.30	82.68055 (17120219)	655476.78	4195475.30	83.69459 (17012717)
655776.78	4195475.30	93.11142 (14012009)	656076.78	4195475.30	81.07095 (16010408)
656376.78	4195475.30	83.03137 (17022508)	656676.78	4195475.30	78.59151 (17121904)

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK1 ***

INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	58.79055 (14012217)	656126.40	4192764.99	57.19555 (14012217)
656103.65	4192731.89	53.80343 (14012217)	656093.30	4192690.51	54.58575 (17122922)
656217.44	4192771.20	58.10910 (14012217)	656279.50	4192760.85	56.53845 (14012217)
656341.57	4192727.75	54.79895 (14012217)	656366.40	4192707.06	54.28612 (14012217)
653815.06	4193437.51	101.56974 (15122802)	653776.43	4193429.79	100.79873 (17020823)
653798.32	4193413.05	99.29038 (15122802)	653708.18	4193118.16	87.74390 (14012218)
653730.07	4193102.71	87.31064 (17020905)	653753.25	4193085.97	87.27050 (17020905)
653800.90	4193053.77	85.26303 (14010203)	653882.02	4192964.92	84.15840 (15021203)
653907.78	4192962.34	85.17737 (15021203)	653945.12	4192954.62	85.45939 (16010120)
654067.45	4192886.37	84.66145 (13122919)	654108.66	4192861.90	83.95893 (13122919)
654140.85	4192841.30	84.75154 (14120706)	654376.51	4192702.22	80.92891 (17122820)
654399.69	4192673.89	80.62710 (14021321)	654024.74	4193417.88	109.17472 (14010818)
653831.84	4193501.47	108.98941 (17020823)	653915.64	4193528.15	113.00988 (14032824)
653813.62	4193608.32	110.60849 (13020305)	653676.78	4192475.30	69.30950 (13011517)
653976.78	4192475.30	69.26385 (13122919)	654276.78	4192475.30	70.77944 (16012403)
654576.78	4192475.30	74.57446 (17012818)	654876.78	4192475.30	72.29254 (17011203)
655176.78	4192475.30	67.56774 (17012804)	655476.78	4192475.30	62.47580 (17012903)
655776.78	4192475.30	60.64773 (17011208)	656076.78	4192475.30	53.18022 (14121216)
656376.78	4192475.30	48.36006 (14012217)	656676.78	4192475.30	47.26077 (14012217)
653676.78	4192775.30	75.33355 (14021408)	653976.78	4192775.30	78.63142 (14021105)
654276.78	4192775.30	82.91741 (13021622)	654576.78	4192775.30	85.59352 (17012818)
654876.78	4192775.30	83.45440 (17013024)	655176.78	4192775.30	80.90830 (17122920)
655476.78	4192775.30	69.76953 (17011208)	655776.78	4192775.30	63.12765 (13012517)
656076.78	4192775.30	55.90112 (14012217)	656376.78	4192775.30	54.00171 (17122320)
656676.78	4192775.30	48.05962 (17121219)	653676.78	4193075.30	85.36850 (14012218)
653976.78	4193075.30	91.52259 (17123007)	654276.78	4193075.30	98.03774 (14021521)
654576.78	4193075.30	97.58830 (17012818)	654876.78	4193075.30	96.49041 (17122701)
655176.78	4193075.30	87.12124 (17020801)	655476.78	4193075.30	77.14915 (13012517)
655776.78	4193075.30	67.13243 (15021508)	656076.78	4193075.30	63.99847 (17122320)
656376.78	4193075.30	57.80334 (17011509)	656676.78	4193075.30	56.98457 (17011509)
653676.78	4193375.30	94.45258 (15021803)	653976.78	4193375.30	105.10559 (16021001)
654276.78	4193375.30	115.98451 (14043021)	654576.78	4193375.30	120.86182 (17012524)
654876.78	4193375.30	115.62471 (17020820)	655176.78	4193375.30	103.60085 (17120120)
655476.78	4193375.30	85.40384 (16040704)	655776.78	4193375.30	81.22652 (17121219)
656076.78	4193375.30	72.55114 (17011509)	656376.78	4193375.30	55.37089 (17021208)
656676.78	4193375.30	49.29042 (17121906)	653676.78	4193675.30	103.43978 (14021403)
653976.78	4193675.30	129.80599 (14121206)	654276.78	4193675.30	148.57889 (15022508)
654576.78	4193675.30	160.35992 (17121920)	654876.78	4193675.30	140.41901 (17012606)
655176.78	4193675.30	118.78708 (17013019)	655476.78	4193675.30	98.27246 (17121320)
655776.78	4193675.30	79.27050 (14120805)	656076.78	4193675.30	70.40772 (17121906)

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*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK1 ***

INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
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656376.78	4193675.30	60.51020 (15060806)	656676.78	4193675.30	56.47324 (15060806)
653676.78	4193975.30	115.17672 (17121220)	653976.78	4193975.30	152.79753 (13041820)
654276.78	4193975.30	199.14427 (13022418)	654576.78	4193975.30	224.94739 (14091007)
654876.78	4193975.30	171.44435 (16110217)	655176.78	4193975.30	128.04678 (15062502)
655476.78	4193975.30	103.82584 (14120721)	655776.78	4193975.30	84.08332 (16010723)
656076.78	4193975.30	75.37838 (14012017)	656376.78	4193975.30	63.37942 (14012017)
656676.78	4193975.30	52.72514 (17122519)	653676.78	4194275.30	122.53401 (17123022)
653976.78	4194275.30	173.67454 (14122109)	654276.78	4194275.30	297.53147 (15010909)
654576.78	4194275.30	953.98009 (17082819)	654876.78	4194275.30	213.92732 (15102617)
655176.78	4194275.30	143.91319 (17091205)	655476.78	4194275.30	106.32196 (15032524)
655776.78	4194275.30	86.59110 (15032524)	656076.78	4194275.30	71.92999 (13020220)
656376.78	4194275.30	61.06146 (13020220)	656676.78	4194275.30	55.06398 (14092807)
653676.78	4194575.30	121.51213 (17020508)	653976.78	4194575.30	156.00720 (17020721)
654276.78	4194575.30	192.04290 (13101019)	654576.78	4194575.30	265.10503 (14122609)
654876.78	4194575.30	178.69933 (17012922)	655176.78	4194575.30	135.09689 (13020422)
655476.78	4194575.30	107.65522 (15031407)	655776.78	4194575.30	89.55049 (15021205)
656076.78	4194575.30	74.70037 (14021120)	656376.78	4194575.30	68.63482 (15021908)
656676.78	4194575.30	60.64683 (15021908)	653676.78	4194875.30	99.83575 (13081903)
653976.78	4194875.30	121.26183 (14102919)	654276.78	4194875.30	144.00729 (15092123)
654576.78	4194875.30	158.00226 (17021222)	654876.78	4194875.30	138.85926 (13022108)
655176.78	4194875.30	116.10319 (14040724)	655476.78	4194875.30	97.67498 (15120204)
655776.78	4194875.30	82.49400 (17011506)	656076.78	4194875.30	76.40297 (14011317)
656376.78	4194875.30	63.94134 (16091407)	656676.78	4194875.30	55.04525 (16091407)
653676.78	4195175.30	88.27903 (15021604)	653976.78	4195175.30	100.55767 (17122724)
654276.78	4195175.30	111.66960 (17031001)	654576.78	4195175.30	116.02192 (17021222)
654876.78	4195175.30	108.74293 (17120204)	655176.78	4195175.30	100.42136 (15120420)
655476.78	4195175.30	91.32292 (14011617)	655776.78	4195175.30	76.12482 (13123020)
656076.78	4195175.30	66.98012 (13122521)	656376.78	4195175.30	58.03599 (14091107)
656676.78	4195175.30	55.12638 (14011317)	653676.78	4195475.30	77.87100 (16111008)
653976.78	4195475.30	86.39742 (17120619)	654276.78	4195475.30	93.84212 (16091820)
654576.78	4195475.30	96.68190 (17012720)	654876.78	4195475.30	92.47358 (17121401)
655176.78	4195475.30	84.95852 (15021907)	655476.78	4195475.30	78.10142 (17012601)
655776.78	4195475.30	71.82261 (14011617)	656076.78	4195475.30	63.83000 (17013020)
656376.78	4195475.30	54.98916 (17121119)	656676.78	4195475.30	49.24299 (13121617)

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK10 ***

INCLUDING SOURCE(S): STCK10 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	87.62729 (16021202)	656126.40	4192764.99	86.93859 (14122106)
656103.65	4192731.89	84.89502 (13021622)	656093.30	4192690.51	83.53588 (13021622)
656217.44	4192771.20	89.76684 (14021321)	656279.50	4192760.85	84.60322 (14010517)
656341.57	4192727.75	90.68054 (17012818)	656366.40	4192707.06	88.43852 (17012818)
653815.06	4193437.51	48.75834 (17121823)	653776.43	4193429.79	47.65018 (17121823)
653798.32	4193413.05	48.56455 (17121823)	653708.18	4193118.16	48.45311 (17021308)
653730.07	4193102.71	47.66070 (17011204)	653753.25	4193085.97	48.12806 (17011204)
653800.90	4193053.77	47.71185 (17013022)	653882.02	4192964.92	46.82002 (17013022)
653907.78	4192962.34	46.91231 (17013106)	653945.12	4192954.62	47.34578 (17013106)
654067.45	4192886.37	49.26410 (17121504)	654108.66	4192861.90	49.96390 (17120517)
654140.85	4192841.30	50.85414 (15021923)	654376.51	4192702.22	53.85713 (15032607)
654399.69	4192673.89	52.99535 (16122205)	654024.74	4193417.88	52.89371 (17123023)
653831.84	4193501.47	50.95803 (17013006)	653915.64	4193528.15	52.94080 (17013006)
653813.62	4193608.32	50.69667 (17011605)	653676.78	4192475.30	39.86065 (15021923)
653976.78	4192475.30	47.03724 (15032607)	654276.78	4192475.30	49.27338 (15011202)
654576.78	4192475.30	53.58305 (13013108)	654876.78	4192475.30	57.94246 (16122805)
655176.78	4192475.30	63.97424 (14012218)	655476.78	4192475.30	69.64310 (14021408)
655776.78	4192475.30	71.43729 (13122919)	656076.78	4192475.30	74.84150 (13021622)
656376.78	4192475.30	78.61421 (17012818)	656676.78	4192475.30	74.70906 (17013024)
653676.78	4192775.30	42.28726 (17121504)	653976.78	4192775.30	47.03807 (17120517)
654276.78	4192775.30	52.58861 (15032607)	654576.78	4192775.30	58.08392 (17020505)
654876.78	4192775.30	63.87050 (13013108)	655176.78	4192775.30	70.99946 (15122802)
655476.78	4192775.30	77.45962 (13020205)	655776.78	4192775.30	83.12487 (17122918)
656076.78	4192775.30	85.53267 (14021521)	656376.78	4192775.30	89.06203 (17012818)
656676.78	4192775.30	90.07598 (17013024)	653676.78	4193075.30	46.66612 (17011204)
653976.78	4193075.30	51.60928 (17013022)	654276.78	4193075.30	55.39064 (17121504)
654576.78	4193075.30	62.78787 (15021923)	654876.78	4193075.30	70.87533 (15011205)
655176.78	4193075.30	78.19461 (14021223)	655476.78	4193075.30	86.15732 (14032824)
655776.78	4193075.30	93.93801 (16041803)	656076.78	4193075.30	98.84366 (14043021)
656376.78	4193075.30	102.64928 (17012524)	656676.78	4193075.30	101.89023 (17122319)
653676.78	4193375.30	46.37398 (17121823)	653976.78	4193375.30	50.77820 (17123023)
654276.78	4193375.30	62.69560 (17021308)	654576.78	4193375.30	68.36287 (17021420)
654876.78	4193375.30	76.88929 (17121504)	655176.78	4193375.30	86.85477 (17021403)
655476.78	4193375.30	96.95698 (14021223)	655776.78	4193375.30	115.00646 (17122817)
656076.78	4193375.30	126.47918 (16041903)	656376.78	4193375.30	130.31600 (17121920)
656676.78	4193375.30	123.74386 (13010523)	653676.78	4193675.30	48.62592 (17011205)
653976.78	4193675.30	54.39604 (17011205)	654276.78	4193675.30	60.72223 (17011605)
654576.78	4193675.30	70.01776 (17013006)	654876.78	4193675.30	77.94151 (17123023)
655176.78	4193675.30	89.59259 (17011204)	655476.78	4193675.30	104.24174 (15022202)
655776.78	4193675.30	136.43684 (15120820)	656076.78	4193675.30	169.47026 (13032724)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK10 ***

INCLUDING SOURCE(S): STCK10 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656376.78	4193675.30	182.11430	(17121920)	656676.78	4193675.30	166.07747 (17122517)
653676.78	4193975.30	49.25575	(15032907)	653976.78	4193975.30	55.07651 (13033007)
654276.78	4193975.30	63.32820	(17121420)	654576.78	4193975.30	71.83478 (17121420)
654876.78	4193975.30	80.89391	(17121420)	655176.78	4193975.30	93.33960 (17122603)
655476.78	4193975.30	118.73594	(17012803)	655776.78	4193975.30	160.89429 (17031301)
656076.78	4193975.30	253.33696	(14120809)	656376.78	4193975.30	378.24587 (17022519)
656676.78	4193975.30	187.37980	(13081801)	653676.78	4194275.30	47.71252 (17013107)
653976.78	4194275.30	53.97470	(17013107)	654276.78	4194275.30	61.11521 (17031805)
654576.78	4194275.30	72.10045	(17011121)	654876.78	4194275.30	84.63644 (17011121)
655176.78	4194275.30	95.61192	(17121322)	655476.78	4194275.30	124.27562 (17120103)
655776.78	4194275.30	163.00014	(17011123)	656076.78	4194275.30	260.78144 (17122809)
656376.78	4194275.30	368.36504	(17010917)	656676.78	4194275.30	211.03737 (16012717)
653676.78	4194575.30	45.62166	(17031703)	653976.78	4194575.30	51.75964 (17013021)
654276.78	4194575.30	58.94081	(17122608)	654576.78	4194575.30	70.62223 (17122608)
654876.78	4194575.30	81.67174	(17011201)	655176.78	4194575.30	91.68634 (17121007)
655476.78	4194575.30	107.55313	(17030206)	655776.78	4194575.30	130.83440 (15102307)
656076.78	4194575.30	159.91480	(15011809)	656376.78	4194575.30	178.60820 (17120719)
656676.78	4194575.30	162.02565	(15020318)	653676.78	4194875.30	45.84753 (17122702)
653976.78	4194875.30	53.18877	(17011201)	654276.78	4194875.30	58.28727 (17120706)
654576.78	4194875.30	68.47906	(17020404)	654876.78	4194875.30	75.46417 (17122402)
655176.78	4194875.30	81.00730	(13093002)	655476.78	4194875.30	95.96624 (17010902)
655776.78	4194875.30	107.28377	(16091821)	656076.78	4194875.30	121.17822 (17040405)
656376.78	4194875.30	132.93482	(17021222)	656676.78	4194875.30	120.29215 (14092520)
653676.78	4195175.30	44.86745	(17120706)	653976.78	4195175.30	51.43392 (17020404)
654276.78	4195175.30	56.02625	(17122402)	654576.78	4195175.30	58.26567 (16010209)
654876.78	4195175.30	65.94356	(14110808)	655176.78	4195175.30	74.04653 (17010902)
655476.78	4195175.30	83.87784	(14100520)	655776.78	4195175.30	91.19258 (15102423)
656076.78	4195175.30	102.93047	(16091820)	656376.78	4195175.30	102.90111 (17012720)
656676.78	4195175.30	99.20386	(13021421)	653676.78	4195475.30	42.95829 (17122402)
653976.78	4195475.30	47.03884	(16010209)	654276.78	4195475.30	50.55267 (15030108)
654576.78	4195475.30	54.93125	(14110808)	654876.78	4195475.30	57.85133 (17010902)
655176.78	4195475.30	68.13643	(17122909)	655476.78	4195475.30	71.51458 (17122724)
655776.78	4195475.30	79.06283	(17120219)	656076.78	4195475.30	84.93866 (17122901)
656376.78	4195475.30	87.90343	(17012720)	656676.78	4195475.30	84.07829 (17121401)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK11 ***

INCLUDING SOURCE(S): STCK11 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	100.99509	(17012818)	656126.40	4192764.99	95.12085 (17031003)
656103.65	4192731.89	97.07961	(14021321)	656093.30	4192690.51	96.50186 (14021321)
656217.44	4192771.20	99.76999	(17012524)	656279.50	4192760.85	95.75850 (16021223)
656341.57	4192727.75	101.38527	(17122917)	656366.40	4192707.06	100.30858 (17122917)
653815.06	4193437.51	53.69823	(17011605)	653776.43	4193429.79	52.50562 (17011605)
653798.32	4193413.05	53.59060	(17011605)	653708.18	4193118.16	48.81276 (17021308)
653730.07	4193102.71	51.43649	(17021308)	653753.25	4193085.97	53.71281 (17021308)
653800.90	4193053.77	56.28209	(17021308)	653882.02	4192964.92	54.32982 (17011204)
653907.78	4192962.34	54.35642	(17011204)	653945.12	4192954.62	54.78749 (17013022)
654067.45	4192886.37	54.32574	(17013106)	654108.66	4192861.90	55.07938 (17121504)
654140.85	4192841.30	56.86335	(17121504)	654376.51	4192702.22	60.80947 (15032607)
654399.69	4192673.89	61.85424	(15032607)	654024.74	4193417.88	58.87479 (17121304)
653831.84	4193501.47	56.13176	(17011205)	653915.64	4193528.15	58.24872 (17011205)
653813.62	4193608.32	52.37324	(15011009)	653676.78	4192475.30	44.02668 (17120517)
653976.78	4192475.30	48.98155	(15032607)	654276.78	4192475.30	54.28992 (16122205)
654576.78	4192475.30	59.34566	(16012402)	654876.78	4192475.30	66.50118 (15020303)
655176.78	4192475.30	72.98196	(14012218)	655476.78	4192475.30	78.24858 (13011517)
655776.78	4192475.30	83.48063	(14120706)	656076.78	4192475.30	86.84948 (14021321)
656376.78	4192475.30	90.66425	(17122917)	656676.78	4192475.30	83.09285 (17012804)
653676.78	4192775.30	48.42278	(17013022)	653976.78	4192775.30	52.58621 (17121504)
654276.78	4192775.30	58.80937	(15021923)	654576.78	4192775.30	66.60481 (15032607)
654876.78	4192775.30	72.11146	(14021223)	655176.78	4192775.30	82.00493 (17020823)
655476.78	4192775.30	88.09086	(13020205)	655776.78	4192775.30	94.86331 (14021105)
656076.78	4192775.30	100.31029	(14021321)	656376.78	4192775.30	99.35698 (17011203)
656676.78	4192775.30	96.12760	(17122920)	653676.78	4193075.30	51.03200 (17021308)
653976.78	4193075.30	58.85344	(17021308)	654276.78	4193075.30	63.89265 (17021420)
654576.78	4193075.30	70.90795	(17121504)	654876.78	4193075.30	80.91385 (17021403)
655176.78	4193075.30	90.36126	(13010906)	655476.78	4193075.30	100.41211 (15122802)
655776.78	4193075.30	112.56491	(14120120)	656076.78	4193075.30	118.36824 (16031902)
656376.78	4193075.30	116.62505	(17021418)	656676.78	4193075.30	108.74781 (14012720)
653676.78	4193375.30	51.08002	(17011605)	653976.78	4193375.30	57.96532 (17013006)
654276.78	4193375.30	65.05342	(17121823)	654576.78	4193375.30	75.29615 (17021308)
654876.78	4193375.30	88.15158	(17011204)	655176.78	4193375.30	100.05346 (17031507)
655476.78	4193375.30	119.15814	(15020520)	655776.78	4193375.30	149.24520 (17122817)
656076.78	4193375.30	158.76474	(15042102)	656376.78	4193375.30	156.78743 (16022320)
656676.78	4193375.30	140.54803	(17120117)	653676.78	4193675.30	52.28472 (17121420)
653976.78	4193675.30	58.69503	(17121420)	654276.78	4193675.30	63.74286 (17121807)
654576.78	4193675.30	77.73773	(17022506)	654876.78	4193675.30	87.29554 (17011205)
655176.78	4193675.30	103.48506	(17020501)	655476.78	4193675.30	132.87745 (17032401)
655776.78	4193675.30	182.52360	(14120809)	656076.78	4193675.30	255.28695 (15091207)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK11 ***
INCLUDING SOURCE(S): STCK11 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M) (YYMMDDHH)	CONC (YYMMDDHH)	X-COORD (M) (YYMMDDHH)	Y-COORD (M) (YYMMDDHH)	CONC (YYMMDDHH)
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656376.78	4193675.30	252.17143 (14020517)	656676.78	4193675.30	157.72390 (17030921)
653676.78	4193975.30	51.54237 (17121203)	653976.78	4193975.30	59.00188 (17121203)
654276.78	4193975.30	67.86943 (17121203)	654576.78	4193975.30	76.11865 (17121203)
654876.78	4193975.30	88.34689 (17013107)	655176.78	4193975.30	107.86529 (17121123)
655476.78	4193975.30	140.66277 (17012801)	655776.78	4193975.30	211.01033 (15013009)
656076.78	4193975.30	530.50676 (17021620)	656376.78	4193975.30	313.22873 (15120709)
656676.78	4193975.30	166.03935 (14122318)	653676.78	4194275.30	49.32872 (17121322)
653976.78	4194275.30	56.49863 (17031703)	654276.78	4194275.30	63.52918 (17013021)
654576.78	4194275.30	75.29202 (17122608)	654876.78	4194275.30	86.01909 (17122702)
655176.78	4194275.30	98.86084 (17122805)	655476.78	4194275.30	127.01142 (17030206)
655776.78	4194275.30	165.83348 (15091220)	656076.78	4194275.30	195.11673 (17121417)
656376.78	4194275.30	186.15935 (15092122)	656676.78	4194275.30	148.95728 (13120224)
653676.78	4194575.30	49.65563 (17122608)	653976.78	4194575.30	56.03286 (17011201)
654276.78	4194575.30	62.47674 (17011201)	654576.78	4194575.30	73.24623 (17020404)
654876.78	4194575.30	81.90519 (17122402)	655176.78	4194575.30	92.04244 (13081903)
655476.78	4194575.30	104.44960 (14121304)	655776.78	4194575.30	123.97392 (16041721)
656076.78	4194575.30	136.59728 (15100423)	656376.78	4194575.30	133.96540 (17031024)
656676.78	4194575.30	121.93308 (14021218)	653676.78	4194875.30	47.06378 (17120706)
653976.78	4194875.30	55.34709 (17020404)	654276.78	4194875.30	60.44184 (17122402)
654576.78	4194875.30	60.91472 (16010209)	654876.78	4194875.30	70.39090 (17120208)
655176.78	4194875.30	78.41379 (14012407)	655476.78	4194875.30	90.25291 (14102903)
655776.78	4194875.30	101.37890 (15092505)	656076.78	4194875.30	106.60618 (15092124)
656376.78	4194875.30	106.20437 (17013124)	656676.78	4194875.30	99.75517 (17012921)
653676.78	4195175.30	45.90442 (17122402)	653976.78	4195175.30	49.59128 (16010209)
654276.78	4195175.30	52.73887 (15030108)	654576.78	4195175.30	54.78839 (14110808)
654876.78	4195175.30	61.39299 (13112423)	655176.78	4195175.30	71.85955 (14100520)
655476.78	4195175.30	77.73517 (13062501)	655776.78	4195175.30	85.42542 (13040107)
656076.78	4195175.30	87.07169 (17042122)	656376.78	4195175.30	88.68115 (17012905)
656676.78	4195175.30	81.07987 (13012019)	653676.78	4195475.30	43.52308 (16010209)
653976.78	4195475.30	49.03806 (14110808)	654276.78	4195475.30	44.32522 (17123024)
654576.78	4195475.30	49.33405 (15121903)	654876.78	4195475.30	60.36523 (17122909)
655176.78	4195475.30	63.10750 (16111008)	655476.78	4195475.30	69.18164 (17120219)
655776.78	4195475.30	72.67767 (16060406)	656076.78	4195475.30	73.58010 (14122309)
656376.78	4195475.30	71.61115 (14111008)	656676.78	4195475.30	70.05508 (15021702)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK12 ***
INCLUDING SOURCE(S): STCK12 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)

656165.71	4192787.75	98.08960	(17012520)	656126.40	4192764.99	97.69269	(17013024)
656103.65	4192731.89	94.35988	(15010920)	656093.30	4192690.51	93.50129	(17011203)
656217.44	4192771.20	96.64490	(15011121)	656279.50	4192760.85	94.93942	(17012804)
656341.57	4192727.75	96.70353	(17122620)	656366.40	4192707.06	95.86709	(17122920)
653815.06	4193437.51	61.83433	(17013006)	653776.43	4193429.79	60.31934	(17013006)
653798.32	4193413.05	61.35691	(17013006)	653708.18	4193118.16	61.02085	(17021308)
653730.07	4193102.71	60.00245	(17021308)	653753.25	4193085.97	59.89256	(17011204)
653800.90	4193053.77	59.44862	(17011204)	653882.02	4192964.92	58.67716	(17013106)
653907.78	4192962.34	58.96951	(17013106)	653945.12	4192954.62	60.23276	(17121504)
654067.45	4192886.37	62.81539	(17120517)	654108.66	4192861.90	63.57099	(15021923)
654140.85	4192841.30	63.33898	(15010907)	654376.51	4192702.22	67.02841	(15011202)
654399.69	4192673.89	64.82308	(16012402)	654024.74	4193417.88	67.65823	(17121823)
653831.84	4193501.47	63.71861	(17011605)	653915.64	4193528.15	66.40418	(17011605)
653813.62	4193608.32	63.29488	(17022506)	653676.78	4192475.30	50.51488	(15032607)
653976.78	4192475.30	55.03497	(17020505)	654276.78	4192475.30	59.49211	(16012402)
654576.78	4192475.30	66.45572	(17020823)	654876.78	4192475.30	72.67796	(17020905)
655176.78	4192475.30	79.71000	(13011517)	655476.78	4192475.30	83.91662	(13012424)
655776.78	4192475.30	85.43711	(14021321)	656076.78	4192475.30	90.52999	(17122917)
656376.78	4192475.30	82.31015	(17012804)	656676.78	4192475.30	79.11178	(17020801)
653676.78	4192775.30	53.40949	(17121504)	653976.78	4192775.30	59.34498	(15021923)
654276.78	4192775.30	66.32824	(15032607)	654576.78	4192775.30	73.17174	(14021223)
654876.78	4192775.30	82.76101	(15122802)	655176.78	4192775.30	88.27499	(14010203)
655476.78	4192775.30	95.75033	(13012120)	655776.78	4192775.30	101.39530	(14021321)
656076.78	4192775.30	95.62548	(17011203)	656376.78	4192775.30	93.52538	(17012903)
656676.78	4192775.30	87.22749	(17120120)	653676.78	4193075.30	57.98956	(17021308)
653976.78	4193075.30	64.81495	(17021420)	654276.78	4193075.30	71.43538	(17121504)
654576.78	4193075.30	80.49697	(17021403)	654876.78	4193075.30	92.47237	(14021223)
655176.78	4193075.30	104.39305	(14032824)	655476.78	4193075.30	114.27805	(15120723)
655776.78	4193075.30	121.53863	(17122707)	656076.78	4193075.30	113.44983	(14012504)
656376.78	4193075.30	104.87481	(14012720)	656676.78	4193075.30	96.37793	(17120121)
653676.78	4193375.30	58.33993	(17013006)	653976.78	4193375.30	66.05176	(17121823)
654276.78	4193375.30	77.92513	(17021308)	654576.78	4193375.30	90.18940	(17021420)
654876.78	4193375.30	103.72214	(17120517)	655176.78	4193375.30	119.60820	(15020520)
655476.78	4193375.30	143.63375	(17122817)	655776.78	4193375.30	160.61772	(16031902)
656076.78	4193375.30	155.64234	(16040921)	656376.78	4193375.30	136.43751	(17120117)
656676.78	4193375.30	110.08462	(17121320)	653676.78	4193675.30	57.51113	(17121807)
653976.78	4193675.30	65.86277	(17022506)	654276.78	4193675.30	77.78914	(17022506)
654576.78	4193675.30	91.35360	(17011605)	654876.78	4193675.30	106.30529	(17020501)
655176.78	4193675.30	130.05174	(16120523)	655476.78	4193675.30	185.49730	(13010809)
655776.78	4193675.30	247.96977	(13090907)	656076.78	4193675.30	234.91095	(14020517)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK12 ***

INCLUDING SOURCE(S): STCK12 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656376.78	4193675.30	152.00431	(14041501)	656676.78	4193675.30	115.69345 (15021623)
653676.78	4193975.30	58.89859	(17121203)	653976.78	4193975.30	68.25896 (17121203)
654276.78	4193975.30	79.42827	(17121203)	654576.78	4193975.30	89.07085 (17120922)
654876.78	4193975.30	108.49566	(17122119)	655176.78	4193975.30	142.85243 (17121123)
655476.78	4193975.30	226.72390	(17013109)	655776.78	4193975.30	635.48430 (16121420)
656076.78	4193975.30	300.93179	(13040507)	656376.78	4193975.30	164.96954 (17022708)
656676.78	4193975.30	121.42464	(17020901)	653676.78	4194275.30	57.14378 (17031703)
653976.78	4194275.30	64.44718	(17013021)	654276.78	4194275.30	75.33676 (17122608)
654576.78	4194275.30	87.98492	(17122702)	654876.78	4194275.30	101.23587 (17010620)
655176.78	4194275.30	130.22928	(17020721)	655476.78	4194275.30	171.64908 (15091220)
655776.78	4194275.30	201.50201	(15103117)	656076.78	4194275.30	189.07320 (16091807)
656376.78	4194275.30	149.45792	(17122322)	656676.78	4194275.30	114.97958 (14120704)
653676.78	4194575.30	56.78937	(17122702)	653976.78	4194575.30	64.37991 (17011201)
654276.78	4194575.30	73.87658	(17121007)	654576.78	4194575.30	83.71200 (17122402)
654876.78	4194575.30	93.41674	(13081903)	655176.78	4194575.30	106.70040 (14120419)
655476.78	4194575.30	129.00140	(16041721)	655776.78	4194575.30	139.27251 (13012519)
656076.78	4194575.30	133.89799	(16021204)	656376.78	4194575.30	119.88916 (14021218)
656676.78	4194575.30	102.38663	(17013020)	653676.78	4194875.30	54.26498 (17020404)
653976.78	4194875.30	61.12567	(17122402)	654276.78	4194875.30	62.19838 (14040607)
654576.78	4194875.30	72.02802	(17120208)	654876.78	4194875.30	80.10830 (14012407)
655176.78	4194875.30	92.53229	(14102903)	655476.78	4194875.30	104.97725 (15092505)
655776.78	4194875.30	109.22822	(14063004)	656076.78	4194875.30	107.51108 (17122822)
656376.78	4194875.30	100.24060	(15021907)	656676.78	4194875.30	90.99677 (17122321)
653676.78	4195175.30	49.91806	(16010209)	653976.78	4195175.30	53.41289 (15030108)
654276.78	4195175.30	55.85686	(14110808)	654576.78	4195175.30	62.29349 (13112423)
654876.78	4195175.30	73.41526	(14100520)	655176.78	4195175.30	79.23070 (13062501)
655476.78	4195175.30	87.35736	(13040107)	655776.78	4195175.30	87.97865 (14110924)
656076.78	4195175.30	90.84765	(17012905)	656376.78	4195175.30	83.40228 (17041006)
656676.78	4195175.30	81.22694	(17022324)	653676.78	4195475.30	49.25933 (14110808)
653976.78	4195475.30	44.62811	(17123024)	654276.78	4195475.30	49.96680 (15121903)
654576.78	4195475.30	61.07759	(17122909)	654876.78	4195475.30	63.96379 (16111008)
655176.78	4195475.30	71.06072	(17120219)	655476.78	4195475.30	75.03492 (16060406)
655776.78	4195475.30	74.03432	(17043005)	656076.78	4195475.30	72.05397 (14111008)
656376.78	4195475.30	71.05943	(13021421)	656676.78	4195475.30	69.49311 (17012921)

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK13 ***

INCLUDING SOURCE(S): STCK13 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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Table with 6 columns and 40 rows of numerical data. The first three columns contain values ranging from 656165.71 to 243.68451, and the last three columns contain values ranging from 94.35306 to 154.34798. Each value is followed by a source identifier in parentheses.

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22 *** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U* *** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK13 *** INCLUDING SOURCE(S): STCK13 , *** DISCRETE CARTESIAN RECEPTOR POINTS *** ** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	116.43124	(14060905)	656676.78	4193675.30	94.64546 (14012017)
653676.78	4193975.30	68.04558	(17121203)	653976.78	4193975.30	79.29611 (17121203)
654276.78	4193975.30	92.43590	(17013107)	654576.78	4193975.30	107.91732 (17121123)
654876.78	4193975.30	141.75334	(17121123)	655176.78	4193975.30	219.19006 (17013109)
655476.78	4193975.30	572.91928	(15050820)	655776.78	4193975.30	323.41734 (15120709)
656076.78	4193975.30	166.47150	(17022708)	656376.78	4193975.30	121.48701 (15121617)
656676.78	4193975.30	99.31959	(17020901)	653676.78	4194275.30	63.95562 (17013021)
653976.78	4194275.30	75.89300	(17122608)	654276.78	4194275.30	88.72877 (17122702)
654576.78	4194275.30	102.86051	(17010620)	654876.78	4194275.30	130.29334 (17020721)
655176.78	4194275.30	172.12889	(15091220)	655476.78	4194275.30	202.68810 (15103117)
655776.78	4194275.30	187.97599	(15092122)	656076.78	4194275.30	146.96405 (17122322)
656376.78	4194275.30	114.71814	(14120704)	656676.78	4194275.30	95.93959 (13030120)
653676.78	4194575.30	64.08825	(17011201)	653976.78	4194575.30	73.69389 (17121007)
654276.78	4194575.30	83.83862	(17122402)	654576.78	4194575.30	92.82630 (13081903)
654876.78	4194575.30	106.57068	(14121304)	655176.78	4194575.30	128.24701 (16041721)
655476.78	4194575.30	143.15368	(15100423)	655776.78	4194575.30	134.25515 (13121618)
656076.78	4194575.30	122.91964	(14021218)	656376.78	4194575.30	103.59998 (17042922)
656676.78	4194575.30	88.83776	(13122521)	653676.78	4194875.30	59.08312 (17122402)
653976.78	4194875.30	62.15654	(14040607)	654276.78	4194875.30	71.96507 (17120208)
654576.78	4194875.30	80.17041	(14012407)	654876.78	4194875.30	92.09267 (14102903)
655176.78	4194875.30	105.38526	(17120219)	655476.78	4194875.30	111.12536 (17120618)
655776.78	4194875.30	108.81864	(17013124)	656076.78	4194875.30	99.09332 (14020118)
656376.78	4194875.30	89.55331	(16122921)	656676.78	4194875.30	82.71445 (17122923)
653676.78	4195175.30	53.60141	(15030108)	653976.78	4195175.30	56.26694 (14110808)
654276.78	4195175.30	61.77956	(13112423)	654576.78	4195175.30	73.15385 (14100520)
654876.78	4195175.30	79.88201	(13062501)	655176.78	4195175.30	88.26078 (13040107)
655476.78	4195175.30	89.15168	(17042122)	655776.78	4195175.30	89.86835 (17012905)
656076.78	4195175.30	82.00542	(13012201)	656376.78	4195175.30	80.55716 (17022324)
656676.78	4195175.30	72.03260	(17122321)	653676.78	4195475.30	44.14244 (14100603)
653976.78	4195475.30	49.63189	(15121903)	654276.78	4195475.30	61.76361 (17122909)
654576.78	4195475.30	64.80060	(16111008)	654876.78	4195475.30	70.75639 (17120219)
655176.78	4195475.30	74.58441	(16060406)	655476.78	4195475.30	74.40123 (14122309)
655776.78	4195475.30	72.14851	(14111008)	656076.78	4195475.30	70.56487 (15021702)
656376.78	4195475.30	70.65739	(17012921)	656676.78	4195475.30	64.83522 (17011507)

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK14 ***

INCLUDING SOURCE(S): STCK14 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	81.67106	(17012908)	656126.40	4192764.99	79.29751 (14021306)

656103.65	4192731.89	79.13100	(17011508)	656093.30	4192690.51	77.77446	(17120120)
656217.44	4192771.20	80.60547	(17012908)	656279.50	4192760.85	76.03397	(17122922)
656341.57	4192727.75	72.13097	(17122922)	656366.40	4192707.06	70.73064	(17122922)
653815.06	4193437.51	88.85929	(17021308)	653776.43	4193429.79	85.89757	(17021308)
653798.32	4193413.05	88.03202	(17021308)	653708.18	4193118.16	77.20351	(17121504)
653730.07	4193102.71	77.55961	(17120517)	653753.25	4193085.97	78.59598	(17120517)
653800.90	4193053.77	78.91884	(15010907)	653882.02	4192964.92	79.65072	(15011205)
653907.78	4192962.34	79.28881	(17020505)	653945.12	4192954.62	81.97601	(17020505)
654067.45	4192886.37	81.73766	(14021223)	654108.66	4192861.90	83.46666	(13013108)
654140.85	4192841.30	85.23612	(16020321)	654376.51	4192702.22	86.40985	(17020905)
654399.69	4192673.89	85.73247	(13020205)	654024.74	4193417.88	99.29939	(17021420)
653831.84	4193501.47	89.23987	(17123023)	653915.64	4193528.15	93.58966	(17123023)
653813.62	4193608.32	89.54460	(17011605)	653676.78	4192475.30	63.35183	(13013108)
653976.78	4192475.30	69.44185	(15122802)	654276.78	4192475.30	76.11739	(13020205)
654576.78	4192475.30	81.73775	(15011706)	654876.78	4192475.30	85.30126	(15011707)
655176.78	4192475.30	89.28494	(17012818)	655476.78	4192475.30	83.66268	(17011203)
655776.78	4192475.30	85.06971	(17122318)	656076.78	4192475.30	72.10767	(17011208)
656376.78	4192475.30	64.85956	(14021306)	656676.78	4192475.30	59.40287	(14012217)
653676.78	4192775.30	68.81737	(17020505)	653976.78	4192775.30	77.54366	(13013108)
654276.78	4192775.30	84.03634	(14032824)	654576.78	4192775.30	93.25263	(16041803)
654876.78	4192775.30	100.49858	(14120620)	655176.78	4192775.30	103.79099	(17012818)
655476.78	4192775.30	100.15413	(17013024)	655776.78	4192775.30	91.70335	(16011007)
656076.78	4192775.30	81.40912	(17011508)	656376.78	4192775.30	72.84608	(15021508)
656676.78	4192775.30	65.99774	(17121219)	653676.78	4193075.30	74.93755	(17120517)
653976.78	4193075.30	86.19545	(14120904)	654276.78	4193075.30	95.94015	(14021223)
654576.78	4193075.30	109.24600	(13012423)	654876.78	4193075.30	118.80426	(13032803)
655176.78	4193075.30	127.74835	(17021904)	655476.78	4193075.30	119.78853	(17020820)
655776.78	4193075.30	108.74065	(17120120)	656076.78	4193075.30	92.61107	(17013019)
656376.78	4193075.30	83.89829	(17121219)	656676.78	4193075.30	69.73421	(17011509)
653676.78	4193375.30	83.85864	(17021308)	653976.78	4193375.30	96.45539	(17021420)
654276.78	4193375.30	107.43402	(17120517)	654576.78	4193375.30	130.72444	(17020104)
654876.78	4193375.30	155.36890	(14032001)	655176.78	4193375.30	170.78022	(16020518)
655476.78	4193375.30	156.86608	(17012606)	655776.78	4193375.30	129.58582	(17013019)
656076.78	4193375.30	105.58679	(17011307)	656376.78	4193375.30	86.26645	(17122619)
656676.78	4193375.30	70.50829	(17020824)	653676.78	4193675.30	83.36522	(17022506)
653976.78	4193675.30	98.21121	(17011605)	654276.78	4193675.30	117.62385	(17121824)
654576.78	4193675.30	152.30918	(17121501)	654876.78	4193675.30	204.56164	(13010809)
655176.78	4193675.30	268.98711	(17090907)	655476.78	4193675.30	195.29738	(17032505)
655776.78	4193675.30	139.61935	(13012507)	656076.78	4193675.30	107.50927	(17112122)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK14 ***

INCLUDING SOURCE(S): STCK14 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)

656376.78	4193675.30	92.23032	(14012017)	656676.78	4193675.30	74.72223	(14012017)
653676.78	4193975.30	83.64874	(17121203)	653976.78	4193975.30	99.11514	(17013107)
654276.78	4193975.30	122.95466	(17121123)	654576.78	4193975.30	157.42120	(17013109)
654876.78	4193975.30	257.86472	(16123009)	655176.78	4193975.30	865.76479	(16031118)
655476.78	4193975.30	258.72484	(13040507)	655776.78	4193975.30	151.98840	(17021220)
656076.78	4193975.30	114.93109	(17020901)	656376.78	4193975.30	93.74189	(17020901)
656676.78	4193975.30	80.14772	(14022208)	653676.78	4194275.30	81.85176	(17122608)
653976.78	4194275.30	95.48682	(17011201)	654276.78	4194275.30	116.70770	(17121121)
654576.78	4194275.30	137.20127	(14083006)	654876.78	4194275.30	172.63557	(14122019)
655176.78	4194275.30	197.26487	(15120217)	655476.78	4194275.30	180.50350	(17040807)
655776.78	4194275.30	138.70104	(13020120)	656076.78	4194275.30	109.45165	(15021922)
656376.78	4194275.30	92.21021	(15120117)	656676.78	4194275.30	77.71890	(13032807)
653676.78	4194575.30	80.19695	(17020404)	653976.78	4194575.30	86.50033	(17043004)
654276.78	4194575.30	99.48281	(13081903)	654576.78	4194575.30	117.18529	(14102919)
654876.78	4194575.30	134.20097	(17031722)	655176.78	4194575.30	139.12660	(13112022)
655476.78	4194575.30	130.30916	(16020921)	655776.78	4194575.30	116.19325	(17120124)
656076.78	4194575.30	100.14111	(13020618)	656376.78	4194575.30	86.25383	(13121617)
656676.78	4194575.30	73.42427	(14120704)	653676.78	4194875.30	62.22109	(13093002)
653976.78	4194875.30	73.41835	(15021406)	654276.78	4194875.30	85.69655	(15021604)
654576.78	4194875.30	97.05745	(17122724)	654876.78	4194875.30	104.61042	(13060805)
655176.78	4194875.30	109.71049	(17122408)	655476.78	4194875.30	105.18453	(16012719)
655776.78	4194875.30	98.29830	(17021405)	656076.78	4194875.30	88.18622	(13121517)
656376.78	4194875.30	79.17458	(17013020)	656676.78	4194875.30	68.14847	(17121119)
653676.78	4195175.30	57.89996	(17123024)	653976.78	4195175.30	65.21334	(15021604)
654276.78	4195175.30	76.11996	(16111008)	654576.78	4195175.30	80.25053	(13012603)
654876.78	4195175.30	90.33869	(16091820)	655176.78	4195175.30	91.54479	(17122408)
655476.78	4195175.30	87.47090	(14012801)	655776.78	4195175.30	85.76007	(17122223)
656076.78	4195175.30	78.43033	(17022706)	656376.78	4195175.30	70.51021	(13121517)
656676.78	4195175.30	64.06706	(17122923)	653676.78	4195475.30	52.38765	(17122909)
653976.78	4195475.30	59.05682	(14100520)	654276.78	4195475.30	66.23703	(17121208)
654576.78	4195475.30	69.50980	(17123001)	654876.78	4195475.30	77.16660	(16060406)
655176.78	4195475.30	76.56603	(17122408)	655476.78	4195475.30	77.39505	(17012905)
655776.78	4195475.30	73.73604	(17022508)	656076.78	4195475.30	67.99231	(17021405)
656376.78	4195475.30	62.81703	(17012601)	656676.78	4195475.30	57.34189	(13121517)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK15 ***

INCLUDING SOURCE(S): STCK15 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)

656165.71	4192787.75	64.45363	(14012217)	656126.40	4192764.99	62.93423	(14012217)
656103.65	4192731.89	59.19631	(14012217)	656093.30	4192690.51	57.12470	(17122922)
656217.44	4192771.20	63.37203	(14012217)	656279.50	4192760.85	61.40714	(14012217)

656341.57	4192727.75	59.47300	(14012217)	656366.40	4192707.06	58.90724	(14012217)
653815.06	4193437.51	159.32820	(16010309)	653776.43	4193429.79	163.57015	(16010309)
653798.32	4193413.05	153.43105	(16010309)	653708.18	4193118.16	111.87726	(13012423)
653730.07	4193102.71	110.77954	(15013104)	653753.25	4193085.97	113.26986	(13020205)
653800.90	4193053.77	114.29241	(14021408)	653882.02	4192964.92	117.46137	(13011517)
653907.78	4192962.34	118.69806	(13011517)	653945.12	4192954.62	114.43118	(13011517)
654067.45	4192886.37	106.37469	(13012120)	654108.66	4192861.90	104.98581	(13012120)
654140.85	4192841.30	107.33799	(15012509)	654376.51	4192702.22	113.15584	(17011609)
654399.69	4192673.89	100.62124	(17011609)	654024.74	4193417.88	170.94765	(14021408)
653831.84	4193501.47	181.27905	(16010309)	653915.64	4193528.15	172.97018	(13012124)
653813.62	4193608.32	178.45385	(13013108)	653676.78	4192475.30	81.33932	(13011517)
653976.78	4192475.30	79.58508	(13012120)	654276.78	4192475.30	112.65713	(17011609)
654576.78	4192475.30	101.05966	(15011209)	654876.78	4192475.30	87.39214	(17011203)
655176.78	4192475.30	82.04394	(17012804)	655476.78	4192475.30	73.44122	(17012903)
655776.78	4192475.30	67.02714	(17011208)	656076.78	4192475.30	63.91879	(14121216)
656376.78	4192475.30	51.17062	(14012217)	656676.78	4192475.30	49.94320	(14012217)
653676.78	4192775.30	95.61304	(14021408)	653976.78	4192775.30	97.35694	(14021105)
654276.78	4192775.30	131.20174	(17011609)	654576.78	4192775.30	118.79288	(15011209)
654876.78	4192775.30	109.31820	(17013024)	655176.78	4192775.30	102.73278	(17122920)
655476.78	4192775.30	82.23739	(17011208)	655776.78	4192775.30	79.96969	(14121216)
656076.78	4192775.30	62.16330	(14012217)	656376.78	4192775.30	60.22592	(17122320)
656676.78	4192775.30	53.73064	(17121219)	653676.78	4193075.30	106.94024	(13012423)
653976.78	4193075.30	129.47542	(13011517)	654276.78	4193075.30	140.43351	(17011609)
654576.78	4193075.30	143.62123	(15011509)	654876.78	4193075.30	140.97911	(17122701)
655176.78	4193075.30	118.34191	(17020801)	655476.78	4193075.30	105.98648	(13012517)
655776.78	4193075.30	81.44342	(14012217)	656076.78	4193075.30	74.12185	(17122320)
656376.78	4193075.30	74.15787	(17011509)	656676.78	4193075.30	70.38552	(17011509)
653676.78	4193375.30	154.81120	(16010309)	653976.78	4193375.30	157.68692	(17121508)
654276.78	4193375.30	184.52074	(15012509)	654576.78	4193375.30	200.42074	(15011509)
654876.78	4193375.30	189.00061	(17122620)	655176.78	4193375.30	152.72788	(17120120)
655476.78	4193375.30	113.82262	(15021508)	655776.78	4193375.30	104.12465	(17121219)
656076.78	4193375.30	106.85443	(17011509)	656376.78	4193375.30	59.18086	(17021208)
656676.78	4193375.30	52.80511	(17121906)	653676.78	4193675.30	162.37293	(15011205)
653976.78	4193675.30	220.25697	(16010309)	654276.78	4193675.30	269.98186	(17122918)
654576.78	4193675.30	287.30815	(15011509)	654876.78	4193675.30	257.90905	(17020801)
655176.78	4193675.30	179.83382	(15021508)	655476.78	4193675.30	165.43056	(17011509)
655776.78	4193675.30	97.53471	(17011509)	656076.78	4193675.30	82.58535	(17121906)

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK15 ***

INCLUDING SOURCE(S): STCK15 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
656376.78	4193675.30	74.78041	(15060806)	656676.78	4193675.30	63.76940	(15060806)

653676.78	4193975.30	205.53015	(17021308)	653976.78	4193975.30	293.81397	(17120517)
654276.78	4193975.30	434.18260	(16022503)	654576.78	4193975.30	508.38405	(17020504)
654876.78	4193975.30	348.87811	(17013019)	655176.78	4193975.30	209.80828	(17122619)
655476.78	4193975.30	140.96373	(15060806)	655776.78	4193975.30	107.54695	(15060806)
656076.78	4193975.30	89.13854	(14012017)	656376.78	4193975.30	71.40983	(14012017)
656676.78	4193975.30	58.30483	(17122519)	653676.78	4194275.30	212.03252	(17011505)
653976.78	4194275.30	333.55166	(17013008)	654276.78	4194275.30	650.89592	(17122404)
654576.78	4194275.30	1187.34378	(14052219)	654876.78	4194275.30	429.27940	(17031801)
655176.78	4194275.30	240.79888	(17122621)	655476.78	4194275.30	156.41202	(17122621)
655776.78	4194275.30	112.32585	(17122621)	656076.78	4194275.30	86.59499	(14092807)
656376.78	4194275.30	73.15915	(14092807)	656676.78	4194275.30	61.59565	(14092807)
653676.78	4194575.30	203.08336	(17011201)	653976.78	4194575.30	289.65491	(17120905)
654276.78	4194575.30	418.12439	(17022406)	654576.78	4194575.30	559.82596	(17122703)
654876.78	4194575.30	363.47236	(17120122)	655176.78	4194575.30	228.51719	(13020908)
655476.78	4194575.30	155.10638	(15010317)	655776.78	4194575.30	117.79282	(13032807)
656076.78	4194575.30	88.86177	(15021908)	656376.78	4194575.30	79.69480	(15021908)
656676.78	4194575.30	67.50582	(15021908)	653676.78	4194875.30	149.64598	(14110808)
653976.78	4194875.30	200.63552	(17122909)	654276.78	4194875.30	265.71198	(17120219)
654576.78	4194875.30	269.17268	(13020121)	654876.78	4194875.30	250.54902	(17021405)
655176.78	4194875.30	188.30596	(17022407)	655476.78	4194875.30	134.71996	(17121119)
655776.78	4194875.30	111.83804	(14091107)	656076.78	4194875.30	89.94369	(14011317)
656376.78	4194875.30	74.95852	(16091407)	656676.78	4194875.30	62.21927	(16091407)
653676.78	4195175.30	124.45975	(17122909)	653976.78	4195175.30	142.12559	(17122724)
654276.78	4195175.30	169.49324	(17012717)	654576.78	4195175.30	185.92245	(15011909)
654876.78	4195175.30	187.06022	(17022508)	655176.78	4195175.30	153.54950	(15123109)
655476.78	4195175.30	116.87945	(14011617)	655776.78	4195175.30	92.73247	(17123020)
656076.78	4195175.30	75.51062	(13122521)	656376.78	4195175.30	73.76410	(14091107)
656676.78	4195175.30	62.28382	(14091107)	653676.78	4195475.30	113.74710	(15090607)
653976.78	4195475.30	126.06412	(16022908)	654276.78	4195475.30	148.67209	(17012717)
654576.78	4195475.30	135.24045	(15011909)	654876.78	4195475.30	125.68827	(17121401)
655176.78	4195475.30	107.91978	(17021405)	655476.78	4195475.30	103.41349	(15123109)
655776.78	4195475.30	82.92530	(14011617)	656076.78	4195475.30	70.93799	(17013020)
656376.78	4195475.30	62.39937	(17121119)	656676.78	4195475.30	52.73737	(13121617)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK16 ***
INCLUDING SOURCE(S): STCK16 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)						
656165.71	4192787.75	69.88693	(14012217)	656126.40	4192764.99	69.30448 (14012217)
656103.65	4192731.89	66.13342	(14012217)	656093.30	4192690.51	61.26413 (14012217)
656217.44	4192771.20	68.15749	(14012217)	656279.50	4192760.85	64.96257 (14012217)
656341.57	4192727.75	63.06111	(17122320)	656366.40	4192707.06	62.21434 (17122320)
653815.06	4193437.51	156.91776	(13013108)	653776.43	4193429.79	148.18562 (14021223)

653798.32	4193413.05	152.78907	(13013108)	653708.18	4193118.16	134.43573	(16010309)
653730.07	4193102.71	124.81875	(16010309)	653753.25	4193085.97	113.04023	(13012124)
653800.90	4193053.77	116.80140	(15010507)	653882.02	4192964.92	113.33603	(13020205)
653907.78	4192962.34	118.94845	(14021408)	653945.12	4192954.62	125.48795	(14021408)
654067.45	4192886.37	115.75015	(17122918)	654108.66	4192861.90	112.65528	(14012608)
654140.85	4192841.30	113.77827	(14021105)	654376.51	4192702.22	136.01898	(17011609)
654399.69	4192673.89	135.93273	(17011609)	654024.74	4193417.88	175.38777	(15010507)
653831.84	4193501.47	164.07016	(13021704)	653915.64	4193528.15	184.57069	(13013108)
653813.62	4193608.32	176.86943	(15011205)	653676.78	4192475.30	84.48213	(14021408)
653976.78	4192475.30	81.75203	(14021105)	654276.78	4192475.30	101.32051	(17011609)
654576.78	4192475.30	111.62947	(15011209)	654876.78	4192475.30	101.70661	(17122917)
655176.78	4192475.30	87.28538	(17122319)	655476.78	4192475.30	84.36992	(17012903)
655776.78	4192475.30	73.56055	(17011208)	656076.78	4192475.30	68.97824	(14121216)
656376.78	4192475.30	56.45395	(14012217)	656676.78	4192475.30	53.58819	(17122320)
653676.78	4192775.30	90.43947	(15013104)	653976.78	4192775.30	111.33161	(13011517)
654276.78	4192775.30	112.54763	(15012509)	654576.78	4192775.30	133.22360	(15011209)
654876.78	4192775.30	120.20634	(17011203)	655176.78	4192775.30	115.08669	(17122318)
655476.78	4192775.30	94.43369	(17020801)	655776.78	4192775.30	87.45341	(14121216)
656076.78	4192775.30	69.12053	(14012217)	656376.78	4192775.30	65.05809	(17122320)
656676.78	4192775.30	57.63137	(17121320)	653676.78	4193075.30	128.24851	(16010309)
653976.78	4193075.30	132.64775	(14021408)	654276.78	4193075.30	145.05217	(13012120)
654576.78	4193075.30	171.48524	(17123009)	654876.78	4193075.30	160.56838	(17013024)
655176.78	4193075.30	141.78721	(17012903)	655476.78	4193075.30	119.11861	(13012517)
655776.78	4193075.30	91.85879	(14012217)	656076.78	4193075.30	80.55974	(17121219)
656376.78	4193075.30	87.40791	(17011509)	656676.78	4193075.30	66.46220	(17011509)
653676.78	4193375.30	132.02483	(13021704)	653976.78	4193375.30	162.35814	(13012124)
654276.78	4193375.30	204.70354	(17122918)	654576.78	4193375.30	230.50119	(17123009)
654876.78	4193375.30	217.40952	(17122319)	655176.78	4193375.30	179.96716	(17120120)
655476.78	4193375.30	134.68914	(15021508)	655776.78	4193375.30	113.78877	(17121320)
656076.78	4193375.30	107.76488	(17011509)	656376.78	4193375.30	65.47335	(17122619)
656676.78	4193375.30	57.80880	(17121906)	653676.78	4193675.30	165.50973	(17121504)
653976.78	4193675.30	219.55995	(13022803)	654276.78	4193675.30	290.24522	(14021122)
654576.78	4193675.30	353.70669	(17012904)	654876.78	4193675.30	296.62460	(17020801)
655176.78	4193675.30	218.54649	(15021508)	655476.78	4193675.30	195.98262	(17011509)
655776.78	4193675.30	113.50112	(17122619)	656076.78	4193675.30	92.16319	(15060806)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK16 ***

INCLUDING SOURCE(S): STCK16 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656376.78	4193675.30	81.70770 (15060806)	656676.78	4193675.30	60.28575 (15060806)
653676.78	4193975.30	186.53279 (17013105)	653976.78	4193975.30	275.02539 (17123106)
654276.78	4193975.30	441.91208 (15022519)	654576.78	4193975.30	665.26482 (15042102)

654876.78	4193975.30	485.30997	(17122708)	655176.78	4193975.30	265.16676	(17020824)
655476.78	4193975.30	165.38498	(17121319)	655776.78	4193975.30	125.12819	(14012017)
656076.78	4193975.30	96.11644	(17122519)	656376.78	4193975.30	74.52131	(17122519)
656676.78	4193975.30	59.48815	(17122719)	653676.78	4194275.30	193.07489	(17011121)
653976.78	4194275.30	288.07067	(17120702)	654276.78	4194275.30	508.23003	(17122523)
654576.78	4194275.30	1206.52678	(14120909)	654876.78	4194275.30	555.70594	(15021222)
655176.78	4194275.30	283.66853	(14021120)	655476.78	4194275.30	179.92693	(14021603)
655776.78	4194275.30	138.94939	(14022208)	656076.78	4194275.30	109.14923	(14022208)
656376.78	4194275.30	89.03938	(14022208)	656676.78	4194275.30	72.86970	(14022208)
653676.78	4194575.30	176.20528	(17121007)	653976.78	4194575.30	212.22228	(15030108)
654276.78	4194575.30	313.23351	(17020506)	654576.78	4194575.30	412.95126	(17120618)
654876.78	4194575.30	347.75084	(17041522)	655176.78	4194575.30	244.28689	(17123020)
655476.78	4194575.30	166.23683	(14091107)	655776.78	4194575.30	120.92040	(16091407)
656076.78	4194575.30	93.16140	(16091407)	656376.78	4194575.30	79.41113	(13032807)
656676.78	4194575.30	63.29472	(14010519)	653676.78	4194875.30	135.22719	(14110808)
653976.78	4194875.30	176.24314	(17122909)	654276.78	4194875.30	211.73398	(16022908)
654576.78	4194875.30	232.90514	(14122309)	654876.78	4194875.30	231.76157	(17022508)
655176.78	4194875.30	181.73219	(17012601)	655476.78	4194875.30	138.68842	(17013020)
655776.78	4194875.30	105.71236	(13122521)	656076.78	4194875.30	92.83763	(14091107)
656376.78	4194875.30	78.39993	(14011317)	656676.78	4194875.30	65.71432	(16091407)
653676.78	4195175.30	113.46142	(17122909)	653976.78	4195175.30	126.58218	(16111008)
654276.78	4195175.30	140.92658	(13040107)	654576.78	4195175.30	159.07707	(14122309)
654876.78	4195175.30	155.30526	(17121401)	655176.78	4195175.30	137.65536	(17021405)
655476.78	4195175.30	114.86798	(17122321)	655776.78	4195175.30	96.76697	(17122923)
656076.78	4195175.30	78.41842	(17121119)	656376.78	4195175.30	66.74317	(15121622)
656676.78	4195175.30	64.18406	(14091107)	653676.78	4195475.30	104.63823	(15090607)
653976.78	4195475.30	115.39795	(16022908)	654276.78	4195475.30	124.47432	(17012717)
654576.78	4195475.30	115.02351	(14122309)	654876.78	4195475.30	116.57473	(17012905)
655176.78	4195475.30	116.43363	(17022508)	655476.78	4195475.30	96.03286	(17022324)
655776.78	4195475.30	82.45057	(17122321)	656076.78	4195475.30	73.64927	(17122923)
656376.78	4195475.30	59.72192	(17013020)	656676.78	4195475.30	53.66639	(17121119)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK17 ***

INCLUDING SOURCE(S): STCK17 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)						
656165.71	4192787.75	73.45655	(14121216)	656126.40	4192764.99	72.60026 (13012517)
656103.65	4192731.89	70.68591	(13012517)	656093.30	4192690.51	66.87572 (17120120)
656217.44	4192771.20	72.21394	(14121216)	656279.50	4192760.85	69.39750 (14121216)
656341.57	4192727.75	65.77606	(14121216)	656366.40	4192707.06	64.53879 (14121216)
653815.06	4193437.51	116.08165	(13013108)	653776.43	4193429.79	110.28506 (13013108)
653798.32	4193413.05	113.12326	(13013108)	653708.18	4193118.16	111.26091 (16010309)
653730.07	4193102.71	106.64295	(16010309)	653753.25	4193085.97	98.90389 (16010309)

653800.90	4193053.77	88.02598	(13020802)	653882.02	4192964.92	87.96117	(15013104)
653907.78	4192962.34	90.00738	(13020205)	653945.12	4192954.62	90.50457	(13020205)
654067.45	4192886.37	96.29169	(14021408)	654108.66	4192861.90	98.16435	(13011517)
654140.85	4192841.30	95.67072	(13011517)	654376.51	4192702.22	86.00329	(15012509)
654399.69	4192673.89	86.56911	(15012509)	654024.74	4193417.88	134.79410	(16010309)
653831.84	4193501.47	118.38067	(14021223)	653915.64	4193528.15	132.11247	(13013108)
653813.62	4193608.32	126.47529	(17020505)	653676.78	4192475.30	61.70757	(13020205)
653976.78	4192475.30	75.11147	(13011517)	654276.78	4192475.30	72.39959	(13122919)
654576.78	4192475.30	104.15948	(17011609)	654876.78	4192475.30	96.37973	(15011209)
655176.78	4192475.30	83.58770	(17122917)	655476.78	4192475.30	73.43451	(17122319)
655776.78	4192475.30	73.33325	(17012903)	656076.78	4192475.30	61.45863	(17011208)
656376.78	4192475.30	60.10677	(13012517)	656676.78	4192475.30	50.50904	(17012908)
653676.78	4192775.30	72.57973	(13012423)	653976.78	4192775.30	90.55854	(14021408)
654276.78	4192775.30	88.77302	(14021105)	654576.78	4192775.30	121.73358	(17011609)
654876.78	4192775.30	113.50879	(15011209)	655176.78	4192775.30	94.38603	(17011203)
655476.78	4192775.30	94.59407	(17122318)	655776.78	4192775.30	83.92005	(17020801)
656076.78	4192775.30	73.26521	(13012517)	656376.78	4192775.30	62.90432	(17012908)
656676.78	4192775.30	61.78397	(14012217)	653676.78	4193075.30	107.00877	(16010309)
653976.78	4193075.30	98.89723	(13020205)	654276.78	4193075.30	111.05684	(17122918)
654576.78	4193075.30	132.45519	(17011609)	654876.78	4193075.30	137.67139	(15011209)
655176.78	4193075.30	127.86016	(17013024)	655476.78	4193075.30	115.73411	(17012903)
655776.78	4193075.30	96.75632	(17120120)	656076.78	4193075.30	82.38882	(17012908)
656376.78	4193075.30	70.74919	(14012217)	656676.78	4193075.30	64.06220	(17121219)
653676.78	4193375.30	99.49452	(14021223)	653976.78	4193375.30	133.03188	(16010309)
654276.78	4193375.30	148.91376	(14021408)	654576.78	4193375.30	162.66921	(15012509)
654876.78	4193375.30	177.57776	(17123009)	655176.78	4193375.30	160.25126	(17122319)
655476.78	4193375.30	137.13642	(17020801)	655776.78	4193375.30	118.16517	(17012908)
656076.78	4193375.30	96.10106	(17122320)	656376.78	4193375.30	86.69288	(17011509)
656676.78	4193375.30	86.71877	(17011509)	653676.78	4193675.30	116.82516	(15010907)
653976.78	4193675.30	147.25889	(13010906)	654276.78	4193675.30	182.89177	(15010507)
654576.78	4193675.30	226.61480	(14021105)	654876.78	4193675.30	241.77826	(17011719)
655176.78	4193675.30	218.11775	(17122920)	655476.78	4193675.30	174.56097	(17012908)
655776.78	4193675.30	141.97771	(17122320)	656076.78	4193675.30	139.73946	(17011509)
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*** AERMET - VERSION 18081 *** ***				*** 12:37:56			
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*							
*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK17 ***							
INCLUDING SOURCE(S): STCK17 ,							
*** DISCRETE CARTESIAN RECEPTOR POINTS ***							
** CONC OF OTHER IN MICROGRAMS/M**3 **							
X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)

656376.78	4193675.30	75.79217	(17122619)	656676.78	4193675.30	67.12836	(17121906)
653676.78	4193975.30	146.00588	(17021308)	653976.78	4193975.30	184.91741	(17121504)
654276.78	4193975.30	250.66494	(14120608)	654576.78	4193975.30	339.22013	(13020306)
654876.78	4193975.30	380.80829	(16021222)	655176.78	4193975.30	321.25230	(17011508)
655476.78	4193975.30	230.56903	(17121320)	655776.78	4193975.30	144.00000	(17122619)

656076.78	4193975.30	108.61577	(15060806)	656376.78	4193975.30	95.01117	(15060806)
656676.78	4193975.30	67.57929	(15060806)	653676.78	4194275.30	152.08158	(15011009)
653976.78	4194275.30	211.01408	(17022506)	654276.78	4194275.30	318.83152	(17012823)
654576.78	4194275.30	550.87256	(15022202)	654876.78	4194275.30	845.62890	(16041107)
655176.78	4194275.30	428.65263	(17012819)	655476.78	4194275.30	239.04309	(17121319)
655776.78	4194275.30	163.14803	(17122519)	656076.78	4194275.30	113.08353	(17122519)
656376.78	4194275.30	87.38710	(17122621)	656676.78	4194275.30	73.40347	(17122621)
653676.78	4194575.30	149.31883	(17121322)	653976.78	4194575.30	197.46239	(17120702)
654276.78	4194575.30	310.54234	(17123105)	654576.78	4194575.30	512.77652	(17012718)
654876.78	4194575.30	802.90636	(14010309)	655176.78	4194575.30	429.85089	(14021423)
655476.78	4194575.30	249.85009	(13032807)	655776.78	4194575.30	164.98815	(15021908)
656076.78	4194575.30	124.48747	(15021908)	656376.78	4194575.30	94.75785	(15021908)
656676.78	4194575.30	78.18324	(14022208)	653676.78	4194875.30	135.80821	(17121007)
653976.78	4194875.30	186.67695	(17122609)	654276.78	4194875.30	210.34677	(17123024)
654576.78	4194875.30	298.73730	(17022607)	654876.78	4194875.30	353.59310	(17021222)
655176.78	4194875.30	296.05919	(17012601)	655476.78	4194875.30	209.06604	(17123020)
655776.78	4194875.30	144.44371	(14091107)	656076.78	4194875.30	117.96473	(14011317)
656376.78	4194875.30	93.43974	(16091407)	656676.78	4194875.30	74.58168	(13032807)
653676.78	4195175.30	113.15094	(15030108)	653976.78	4195175.30	125.42665	(17123024)
654276.78	4195175.30	163.43882	(15090607)	654576.78	4195175.30	189.88364	(13040107)
654876.78	4195175.30	218.99658	(17012720)	655176.78	4195175.30	193.34805	(17122223)
655476.78	4195175.30	155.40485	(17122321)	655776.78	4195175.30	123.78682	(17013020)
656076.78	4195175.30	98.10299	(17121119)	656376.78	4195175.30	87.24283	(14091107)
656676.78	4195175.30	75.96796	(14091107)	653676.78	4195475.30	84.37724	(17010902)
653976.78	4195475.30	118.67320	(13011809)	654276.78	4195475.30	135.89901	(16022908)
654576.78	4195475.30	159.14233	(17012717)	654876.78	4195475.30	152.34003	(15011909)
655176.78	4195475.30	145.45050	(17022508)	655476.78	4195475.30	127.33452	(17021405)
655776.78	4195475.30	106.32952	(17122321)	656076.78	4195475.30	91.71919	(17122923)
656376.78	4195475.30	74.82413	(17123020)	656676.78	4195475.30	63.26718	(13122521)

*** AERMOD - VERSION 19191 ***

*** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S ***

02/22/22

*** AERMET - VERSION 18081 ***

*** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK18 ***

INCLUDING SOURCE(S): STCK18 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)						
656165.71	4192787.75	82.63010	(14121216)	656126.40	4192764.99	81.92941 (14121216)
656103.65	4192731.89	81.09838	(13012517)	656093.30	4192690.51	78.50219 (13012517)
656217.44	4192771.20	79.27960	(14121216)	656279.50	4192760.85	74.55004 (17012908)
656341.57	4192727.75	70.70480	(17012908)	656366.40	4192707.06	69.24335 (17012908)
653815.06	4193437.51	118.70199	(15011205)	653776.43	4193429.79	114.74273 (15011205)
653798.32	4193413.05	114.87637	(13010908)	653708.18	4193118.16	94.35962 (13013108)
653730.07	4193102.71	96.21910	(13013108)	653753.25	4193085.97	102.08432 (16010309)
653800.90	4193053.77	117.77610	(16010309)	653882.02	4192964.92	101.40186 (16010309)
653907.78	4192962.34	93.93339	(13012124)	653945.12	4192954.62	95.38648 (15010507)

654067.45	4192886.37	98.69483	(13020205)	654108.66	4192861.90	98.92749	(14021408)
654140.85	4192841.30	105.18658	(14021408)	654376.51	4192702.22	95.72190	(14021105)
654399.69	4192673.89	93.64003	(14021105)	654024.74	4193417.88	136.81109	(13013108)
653831.84	4193501.47	124.32695	(13012121)	653915.64	4193528.15	135.34753	(15011205)
653813.62	4193608.32	133.95446	(17120517)	653676.78	4192475.30	66.00556	(13012423)
653976.78	4192475.30	83.21769	(14021408)	654276.78	4192475.30	79.96728	(14021105)
654576.78	4192475.30	97.70293	(17011609)	654876.78	4192475.30	106.03049	(15011209)
655176.78	4192475.30	95.41463	(17122917)	655476.78	4192475.30	85.05357	(17122701)
655776.78	4192475.30	82.67046	(17012903)	656076.78	4192475.30	70.58366	(17011208)
656376.78	4192475.30	68.58595	(14121216)	656676.78	4192475.30	52.28340	(17122922)
653676.78	4192775.30	93.52763	(16010309)	653976.78	4192775.30	88.99046	(13020205)
654276.78	4192775.30	102.89110	(13011517)	654576.78	4192775.30	105.52205	(15012509)
654876.78	4192775.30	125.96440	(15011209)	655176.78	4192775.30	118.48571	(17122917)
655476.78	4192775.30	106.02157	(17122318)	655776.78	4192775.30	95.62530	(17020801)
656076.78	4192775.30	83.47869	(13012517)	656376.78	4192775.30	64.45022	(17122922)
656676.78	4192775.30	64.17036	(14012217)	653676.78	4193075.30	91.58753	(13013108)
653976.78	4193075.30	110.00754	(16010309)	654276.78	4193075.30	129.77181	(14021408)
654576.78	4193075.30	134.34758	(13012120)	654876.78	4193075.30	156.90123	(17123009)
655176.78	4193075.30	144.25310	(17013024)	655476.78	4193075.30	135.54109	(17012903)
655776.78	4193075.30	110.08705	(17120120)	656076.78	4193075.30	84.34880	(17120121)
656376.78	4193075.30	81.17362	(17122320)	656676.78	4193075.30	75.84914	(17011509)
653676.78	4193375.30	104.43314	(13012121)	653976.78	4193375.30	128.34781	(13013108)
654276.78	4193375.30	156.56703	(15010507)	654576.78	4193375.30	187.57911	(17122918)
654876.78	4193375.30	204.73814	(17123009)	655176.78	4193375.30	204.08731	(17122701)
655476.78	4193375.30	161.97357	(17011208)	655776.78	4193375.30	127.11112	(17012908)
656076.78	4193375.30	109.93997	(17121219)	656376.78	4193375.30	116.22096	(17011509)
656676.78	4193375.30	66.05597	(17021208)	653676.78	4193675.30	122.53010	(17021420)
653976.78	4193675.30	154.32257	(17120517)	654276.78	4193675.30	201.65413	(14021223)
654576.78	4193675.30	264.32766	(17121508)	654876.78	4193675.30	304.49409	(17012904)
655176.78	4193675.30	289.34415	(17122920)	655476.78	4193675.30	211.66328	(17012908)
655776.78	4193675.30	172.58776	(17011509)	656076.78	4193675.30	113.13608	(17011509)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK18 ***
INCLUDING SOURCE(S): STCK18 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
656376.78	4193675.30	92.02130	(17121906)	656676.78	4193675.30	79.91326	(15060806)
653676.78	4193975.30	134.49170	(17011605)	653976.78	4193975.30	182.21228	(17123023)
654276.78	4193975.30	266.37562	(17021420)	654576.78	4193975.30	388.96874	(13011624)
654876.78	4193975.30	574.27220	(17122706)	655176.78	4193975.30	455.25359	(17120121)
655476.78	4193975.30	246.29823	(17122619)	655776.78	4193975.30	161.09726	(14120721)
656076.78	4193975.30	119.99283	(17121319)	656376.78	4193975.30	99.51273	(14012017)
656676.78	4193975.30	75.09601	(17122519)	653676.78	4194275.30	137.81158	(17011505)

653976.78	4194275.30	191.15694	(17121203)	654276.78	4194275.30	291.47101	(17120922)
654576.78	4194275.30	505.06575	(17121123)	654876.78	4194275.30	1290.63021	(17090324)
655176.78	4194275.30	601.42784	(17021220)	655476.78	4194275.30	303.78449	(14022208)
655776.78	4194275.30	197.76346	(14022208)	656076.78	4194275.30	138.80993	(14022208)
656376.78	4194275.30	104.84804	(14022208)	656676.78	4194275.30	81.64571	(14022208)
653676.78	4194575.30	132.87464	(17122608)	653976.78	4194575.30	180.33335	(17011201)
654276.78	4194575.30	250.20016	(17122609)	654576.78	4194575.30	330.37042	(14121304)
654876.78	4194575.30	490.46863	(17020802)	655176.78	4194575.30	405.59751	(17012601)
655476.78	4194575.30	254.11974	(14012706)	655776.78	4194575.30	182.41499	(14011317)
656076.78	4194575.30	124.68649	(16091407)	656376.78	4194575.30	101.54366	(13032807)
656676.78	4194575.30	79.10076	(15021908)	653676.78	4194875.30	118.62338	(17122609)
653976.78	4194875.30	142.60617	(15030108)	654276.78	4194875.30	162.81889	(14012407)
654576.78	4194875.30	219.82192	(17022607)	654876.78	4194875.30	259.05991	(17120618)
655176.78	4194875.30	243.60399	(17022508)	655476.78	4194875.30	201.65415	(17122321)
655776.78	4194875.30	146.10601	(17123020)	656076.78	4194875.30	112.87524	(13121617)
656376.78	4194875.30	99.23268	(14091107)	656676.78	4194875.30	79.62176	(14011317)
653676.78	4195175.30	102.02390	(14110808)	653976.78	4195175.30	100.53393	(14012407)
654276.78	4195175.30	143.42922	(15090607)	654576.78	4195175.30	147.83276	(17120219)
654876.78	4195175.30	176.76804	(14122309)	655176.78	4195175.30	170.14603	(17121401)
655476.78	4195175.30	151.59984	(17021405)	655776.78	4195175.30	121.60269	(17122321)
656076.78	4195175.30	99.56032	(17013020)	656376.78	4195175.30	85.22596	(17121119)
656676.78	4195175.30	70.59207	(13121617)	653676.78	4195475.30	70.10047	(14012407)
653976.78	4195475.30	105.77110	(15090607)	654276.78	4195475.30	116.85883	(16022908)
654576.78	4195475.30	119.66827	(17012717)	654876.78	4195475.30	127.46422	(14122309)
655176.78	4195475.30	124.56308	(17012905)	655476.78	4195475.30	115.40446	(17022508)
655776.78	4195475.30	106.85290	(15123109)	656076.78	4195475.30	83.96132	(17122321)
656376.78	4195475.30	76.85129	(17122923)	656676.78	4195475.30	63.56195	(17123020)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK19 ***

INCLUDING SOURCE(S): STCK19 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	75.22957 (17020801)	656126.40	4192764.99	80.39160 (17020801)
656103.65	4192731.89	78.84093 (17020801)	656093.30	4192690.51	73.86013 (17020801)
656217.44	4192771.20	73.93321 (17011208)	656279.50	4192760.85	74.30681 (17011208)
656341.57	4192727.75	70.91071 (17120120)	656366.40	4192707.06	69.95260 (17120120)
653815.06	4193437.51	92.41752 (17020505)	653776.43	4193429.79	89.53216 (15011205)
653798.32	4193413.05	90.86941 (17020505)	653708.18	4193118.16	75.93426 (13013108)
653730.07	4193102.71	77.99640 (13013108)	653753.25	4193085.97	79.25308 (16010309)
653800.90	4193053.77	93.62244 (16010309)	653882.02	4192964.92	93.48249 (16010309)
653907.78	4192962.34	90.00977 (16010309)	653945.12	4192954.62	82.03974 (16010309)
654067.45	4192886.37	77.84493 (13012423)	654108.66	4192861.90	78.48824 (15013104)
654140.85	4192841.30	80.00644 (13020205)	654376.51	4192702.22	83.78506 (13011517)

654399.69	4192673.89	78.03891	(13011517)	654024.74	4193417.88	103.62724	(13013108)
653831.84	4193501.47	97.47982	(15011205)	653915.64	4193528.15	103.24173	(13010908)
653813.62	4193608.32	100.10581	(15010907)	653676.78	4192475.30	55.78641	(15010507)
653976.78	4192475.30	62.17210	(14021408)	654276.78	4192475.30	72.37481	(13011517)
654576.78	4192475.30	69.85003	(14120706)	654876.78	4192475.30	101.36031	(17011609)
655176.78	4192475.30	93.96673	(15011209)	655476.78	4192475.30	82.31571	(17122917)
655776.78	4192475.30	70.27715	(17122701)	656076.78	4192475.30	71.18186	(17012903)
656376.78	4192475.30	58.66536	(17011208)	656676.78	4192475.30	61.37714	(13012517)
653676.78	4192775.30	83.38409	(16010309)	653976.78	4192775.30	71.22575	(13012423)
654276.78	4192775.30	87.57319	(14021408)	654576.78	4192775.30	86.46165	(14021105)
654876.78	4192775.30	119.32807	(17011609)	655176.78	4192775.30	111.78485	(15011209)
655476.78	4192775.30	94.05405	(17011203)	655776.78	4192775.30	91.03306	(17122318)
656076.78	4192775.30	81.33436	(17020801)	656376.78	4192775.30	71.06867	(13012517)
656676.78	4192775.30	65.69356	(17012908)	653676.78	4193075.30	74.25796	(13013108)
653976.78	4193075.30	102.07149	(16010309)	654276.78	4193075.30	97.15193	(13020205)
654576.78	4193075.30	108.71015	(17122918)	654876.78	4193075.30	130.19719	(17011609)
655176.78	4193075.30	135.32512	(15011209)	655476.78	4193075.30	123.96655	(17013024)
655776.78	4193075.30	110.99710	(17012903)	656076.78	4193075.30	95.34616	(17011208)
656376.78	4193075.30	82.18931	(17012908)	656676.78	4193075.30	71.99500	(14012217)
653676.78	4193375.30	83.76505	(15011205)	653976.78	4193375.30	98.30497	(13013108)
654276.78	4193375.30	121.31394	(16010309)	654576.78	4193375.30	145.27805	(14021408)
654876.78	4193375.30	156.80649	(15012509)	655176.78	4193375.30	174.71575	(17123009)
655476.78	4193375.30	154.66844	(17122701)	655776.78	4193375.30	140.09861	(17020801)
656076.78	4193375.30	114.91903	(14121216)	656376.78	4193375.30	91.58035	(14012217)
656676.78	4193375.30	80.87818	(17121219)	653676.78	4193675.30	97.63684	(17121504)
653976.78	4193675.30	114.94646	(17021403)	654276.78	4193675.30	142.31175	(14021223)
654576.78	4193675.30	181.80729	(15010507)	654876.78	4193675.30	211.00808	(14021105)
655176.78	4193675.30	232.63337	(17011719)	655476.78	4193675.30	219.56455	(17122920)
655776.78	4193675.30	170.08429	(13012517)	656076.78	4193675.30	140.78069	(17122320)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*
*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK19 ***
INCLUDING SOURCE(S): STCK19 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656376.78	4193675.30	137.00806 (17011509)	656676.78	4193675.30	80.53628 (17011509)
653676.78	4193975.30	106.34049 (17021308)	653976.78	4193975.30	135.79666 (17120203)
654276.78	4193975.30	181.55471 (17121504)	654576.78	4193975.30	237.51091 (13010906)
654876.78	4193975.30	319.62029 (15022608)	655176.78	4193975.30	363.58581 (17012524)
655476.78	4193975.30	316.07474 (17120120)	655776.78	4193975.30	228.16617 (17121219)
656076.78	4193975.30	149.78097 (17011509)	656376.78	4193975.30	110.77281 (17121906)
656676.78	4193975.30	93.71502 (15060806)	653676.78	4194275.30	122.69023 (15011009)
653976.78	4194275.30	154.67010 (15011009)	654276.78	4194275.30	206.11702 (17013105)
654576.78	4194275.30	312.59196 (17123023)	654876.78	4194275.30	522.65857 (15120207)

655176.78	4194275.30	809.77112	(14121116)	655476.78	4194275.30	424.12443	(17012523)
655776.78	4194275.30	234.90601	(17011303)	656076.78	4194275.30	161.87433	(14012017)
656376.78	4194275.30	119.19745	(17122519)	656676.78	4194275.30	86.86447	(17122519)
653676.78	4194575.30	113.13290	(17011121)	653976.78	4194575.30	151.24795	(17011121)
654276.78	4194575.30	205.93213	(17121322)	654576.78	4194575.30	308.00162	(17120901)
654876.78	4194575.30	576.57107	(17122524)	655176.78	4194575.30	978.98506	(14010309)
655476.78	4194575.30	443.93105	(16122020)	655776.78	4194575.30	250.68298	(14010519)
656076.78	4194575.30	170.23048	(15021908)	656376.78	4194575.30	122.02441	(15021908)
656676.78	4194575.30	99.52185	(14022208)	653676.78	4194875.30	103.58457	(17122702)
653976.78	4194875.30	137.74752	(17120707)	654276.78	4194875.30	182.43041	(17122609)
654576.78	4194875.30	223.51240	(14110808)	654876.78	4194875.30	315.32329	(17122724)
655176.78	4194875.30	383.83474	(17021222)	655476.78	4194875.30	317.47992	(17012601)
655776.78	4194875.30	215.52898	(17121119)	656076.78	4194875.30	151.62098	(14091107)
656376.78	4194875.30	115.64379	(14011317)	656676.78	4194875.30	94.19900	(16091407)
653676.78	4195175.30	98.30744	(17122609)	653976.78	4195175.30	113.97773	(16010209)
654276.78	4195175.30	127.25946	(17123024)	654576.78	4195175.30	168.18761	(13011809)
654876.78	4195175.30	191.42724	(17120219)	655176.78	4195175.30	230.90823	(17012720)
655476.78	4195175.30	202.89199	(17122223)	655776.78	4195175.30	167.17228	(17122321)
656076.78	4195175.30	128.12728	(17013020)	656376.78	4195175.30	102.49363	(13122521)
656676.78	4195175.30	91.91322	(14091107)	653676.78	4195475.30	85.12266	(14110808)
653976.78	4195475.30	86.25216	(17123024)	654276.78	4195475.30	123.18180	(17122909)
654576.78	4195475.30	132.96031	(16022908)	654876.78	4195475.30	159.01922	(17012717)
655176.78	4195475.30	157.81073	(17012720)	655476.78	4195475.30	153.11285	(17022508)
655776.78	4195475.30	130.02919	(17021405)	656076.78	4195475.30	109.81994	(17122321)
656376.78	4195475.30	92.51923	(17122923)	656676.78	4195475.30	77.13492	(17121119)

*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK2 ***

INCLUDING SOURCE(S): STCK2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	40.52167 (13012421)	656126.40	4192764.99	40.57586 (17013019)
656103.65	4192731.89	39.77667 (15012721)	656093.30	4192690.51	39.98465 (16041806)
656217.44	4192771.20	39.78507 (14120803)	656279.50	4192760.85	38.84115 (14120803)
656341.57	4192727.75	37.77938 (15020221)	656366.40	4192707.06	37.33208 (15020221)
653815.06	4193437.51	61.81867 (14091507)	653776.43	4193429.79	58.92883 (14063003)
653798.32	4193413.05	60.73006 (14091507)	653708.18	4193118.16	52.61923 (16110622)
653730.07	4193102.71	53.16741 (14091301)	653753.25	4193085.97	53.11615 (14080105)
653800.90	4193053.77	52.93509 (17122817)	653882.02	4192964.92	52.18659 (15101402)
653907.78	4192962.34	52.24086 (14070606)	653945.12	4192954.62	52.30355 (13050601)
654067.45	4192886.37	52.74151 (14102218)	654108.66	4192861.90	51.74789 (15061704)
654140.85	4192841.30	52.86748 (17020109)	654376.51	4192702.22	50.38836 (15101522)
654399.69	4192673.89	49.88955 (17031607)	654024.74	4193417.88	63.54996 (14091301)
653831.84	4193501.47	62.79714 (14112021)	653915.64	4193528.15	68.86774 (14091507)

653813.62	4193608.32	67.83672	(13010809)	653676.78	4192475.30	42.29107	(14022424)
653976.78	4192475.30	43.57370	(16061706)	654276.78	4192475.30	45.87849	(17031906)
654576.78	4192475.30	46.73679	(16020518)	654876.78	4192475.30	46.63423	(15032622)
655176.78	4192475.30	44.91196	(15120818)	655476.78	4192475.30	43.92007	(15032520)
655776.78	4192475.30	40.61739	(17031424)	656076.78	4192475.30	37.75017	(16021402)
656376.78	4192475.30	34.77990	(15011704)	656676.78	4192475.30	33.61410	(17122320)
653676.78	4192775.30	46.53639	(16011024)	653976.78	4192775.30	48.97843	(14071302)
654276.78	4192775.30	51.03641	(16101424)	654576.78	4192775.30	53.00957	(16020518)
654876.78	4192775.30	51.60075	(16120417)	655176.78	4192775.30	50.62507	(13042902)
655476.78	4192775.30	47.48681	(13030118)	655776.78	4192775.30	44.24017	(17031624)
656076.78	4192775.30	40.59647	(15012721)	656376.78	4192775.30	37.88792	(17122708)
656676.78	4192775.30	35.41846	(17121320)	653676.78	4193075.30	51.23267	(16110622)
653976.78	4193075.30	56.19830	(14070606)	654276.78	4193075.30	59.59598	(17111217)
654576.78	4193075.30	60.29690	(14110317)	654876.78	4193075.30	59.74489	(15100719)
655176.78	4193075.30	57.44236	(17080203)	655476.78	4193075.30	52.51531	(13081704)
655776.78	4193075.30	47.96098	(15012721)	656076.78	4193075.30	44.07039	(14021502)
656376.78	4193075.30	40.30482	(15032702)	656676.78	4193075.30	36.19055	(16010217)
653676.78	4193375.30	56.10121	(14112021)	653976.78	4193375.30	63.52211	(14091301)
654276.78	4193375.30	69.11663	(15060903)	654576.78	4193375.30	69.98665	(14110317)
654876.78	4193375.30	71.23272	(16041107)	655176.78	4193375.30	61.61173	(16090802)
655476.78	4193375.30	57.47482	(14091124)	655776.78	4193375.30	51.42845	(15010718)
656076.78	4193375.30	45.76313	(17012523)	656376.78	4193375.30	41.96613	(17012819)
656676.78	4193375.30	37.39181	(15030721)	653676.78	4193675.30	60.23548	(15102503)
653976.78	4193675.30	72.08202	(15092407)	654276.78	4193675.30	74.48575	(14062906)
654576.78	4193675.30	91.71866	(17090907)	654876.78	4193675.30	77.51203	(15090707)
655176.78	4193675.30	72.53360	(16110217)	655476.78	4193675.30	62.62116	(14043023)
655776.78	4193675.30	55.61135	(13101621)	656076.78	4193675.30	48.67628	(13021319)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK2 ***

INCLUDING SOURCE(S): STCK2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656376.78	4193675.30	42.78624 (17011303)	656676.78	4193675.30	39.28438 (14021320)
653676.78	4193975.30	63.03006 (17102406)	653976.78	4193975.30	89.92872 (15010709)
654276.78	4193975.30	101.44715 (14120809)	654576.78	4193975.30	113.90307 (17090707)
654876.78	4193975.30	119.14057 (15091218)	655176.78	4193975.30	72.97106 (14111708)
655476.78	4193975.30	68.00263 (14091921)	655776.78	4193975.30	58.67821 (15072004)
656076.78	4193975.30	49.87737 (14030224)	656376.78	4193975.30	44.15788 (15032707)
656676.78	4193975.30	39.90765 (17012521)	653676.78	4194275.30	67.36197 (17013109)
653976.78	4194275.30	81.12894 (15013009)	654276.78	4194275.30	113.47879 (13010409)
654576.78	4194275.30	137.58710 (14110809)	654876.78	4194275.30	127.83595 (15120709)
655176.78	4194275.30	100.83340 (13040507)	655476.78	4194275.30	68.04302 (17022708)
655776.78	4194275.30	57.33697 (17021220)	656076.78	4194275.30	50.63547 (16031622)

656376.78	4194275.30	44.80197 (14031821)	656676.78	4194275.30	39.87837 (13123017)
653676.78	4194575.30	60.78625 (17102703)	653976.78	4194575.30	80.86316 (15010309)
654276.78	4194575.30	79.68114 (17103108)	654576.78	4194575.30	87.26101 (15091607)
654876.78	4194575.30	102.34406 (17102317)	655176.78	4194575.30	85.08435 (17091207)
655476.78	4194575.30	64.71301 (14110821)	655776.78	4194575.30	55.74690 (15021222)
656076.78	4194575.30	49.29331 (15032523)	656376.78	4194575.30	43.67401 (17013120)
656676.78	4194575.30	39.68514 (16120418)	653676.78	4194875.30	54.33781 (17100219)
653976.78	4194875.30	66.06603 (17092507)	654276.78	4194875.30	69.59998 (16121409)
654576.78	4194875.30	75.95722 (17111008)	654876.78	4194875.30	71.80821 (16053106)
655176.78	4194875.30	67.49189 (15072806)	655476.78	4194875.30	59.69803 (16041003)
655776.78	4194875.30	53.69472 (13020120)	656076.78	4194875.30	47.68248 (16031623)
656376.78	4194875.30	42.36921 (16122020)	656676.78	4194875.30	38.43810 (15010318)
653676.78	4195175.30	52.76721 (16103120)	653976.78	4195175.30	56.67608 (13110923)
654276.78	4195175.30	60.16952 (17040405)	654576.78	4195175.30	63.91335 (17050806)
654876.78	4195175.30	63.22149 (16100821)	655176.78	4195175.30	60.11474 (15092122)
655476.78	4195175.30	53.57589 (13092106)	655776.78	4195175.30	49.55010 (13012505)
656076.78	4195175.30	45.06501 (14021421)	656376.78	4195175.30	39.74395 (14111021)
656676.78	4195175.30	37.03948 (14021423)	653676.78	4195475.30	47.77106 (16091821)
653976.78	4195475.30	51.44327 (13111923)	654276.78	4195475.30	54.46881 (15102121)
654576.78	4195475.30	55.26168 (13112022)	654876.78	4195475.30	54.70423 (13092105)
655176.78	4195475.30	52.62712 (16100721)	655476.78	4195475.30	49.05255 (16071406)
655776.78	4195475.30	44.80652 (15030918)	656076.78	4195475.30	42.11392 (13040320)
656376.78	4195475.30	38.24634 (13020618)	656676.78	4195475.30	34.92196 (15033007)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK20 ***

INCLUDING SOURCE(S): STCK20 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	89.64222 (17020801)	656126.40	4192764.99	93.11945 (17020801)
656103.65	4192731.89	88.26895 (17020801)	656093.30	4192690.51	86.94138 (17012903)
656217.44	4192771.20	84.11631 (17011208)	656279.50	4192760.85	85.28968 (17011208)
656341.57	4192727.75	81.09704 (17120120)	656366.40	4192707.06	79.84739 (17120120)
653815.06	4193437.51	95.43251 (17120517)	653776.43	4193429.79	92.41032 (17120517)
653798.32	4193413.05	92.67772 (17120517)	653708.18	4193118.16	76.73374 (15011205)
653730.07	4193102.71	77.55595 (17020505)	653753.25	4193085.97	78.14591 (17020505)
653800.90	4193053.77	78.05594 (13010906)	653882.02	4192964.92	80.36226 (13013108)
653907.78	4192962.34	81.45713 (13013108)	653945.12	4192954.62	89.92825 (16010309)
654067.45	4192886.37	101.99273 (16010309)	654108.66	4192861.90	91.71337 (16010309)
654140.85	4192841.30	80.75571 (13012124)	654376.51	4192702.22	90.54692 (14021408)
654399.69	4192673.89	91.96493 (14021408)	654024.74	4193417.88	105.76567 (13012121)
653831.84	4193501.47	100.23174 (17121504)	653915.64	4193528.15	105.28889 (17121504)
653813.62	4193608.32	102.32710 (17021420)	653676.78	4192475.30	76.48692 (16010309)
653976.78	4192475.30	64.04873 (15010507)	654276.78	4192475.30	79.34803 (14021408)

654576.78	4192475.30	75.97822	(14012608)	654876.78	4192475.30	82.98423	(17011609)
655176.78	4192475.30	94.78219	(15011209)	655476.78	4192475.30	89.84702	(17120822)
655776.78	4192475.30	86.90534	(17122701)	656076.78	4192475.30	78.12222	(17122920)
656376.78	4192475.30	67.73370	(17020801)	656676.78	4192475.30	68.49685	(13012517)
653676.78	4192775.30	67.17163	(13013108)	653976.78	4192775.30	93.04150	(16010309)
654276.78	4192775.30	83.88634	(15013104)	654576.78	4192775.30	102.32816	(13011517)
654876.78	4192775.30	103.83972	(15012509)	655176.78	4192775.30	110.98070	(15011209)
655476.78	4192775.30	116.17229	(17122917)	655776.78	4192775.30	102.42642	(17122319)
656076.78	4192775.30	91.07221	(17020801)	656376.78	4192775.30	81.98086	(13012517)
656676.78	4192775.30	71.51980	(17012908)	653676.78	4193075.30	74.14513	(13010908)
653976.78	4193075.30	87.84766	(13013108)	654276.78	4193075.30	111.77655	(16010309)
654576.78	4193075.30	122.09206	(14021408)	654876.78	4193075.30	130.02412	(13012120)
655176.78	4193075.30	139.96730	(17122820)	655476.78	4193075.30	148.11948	(17122917)
655776.78	4193075.30	136.36164	(17122920)	656076.78	4193075.30	112.45195	(17011208)
656376.78	4193075.30	93.92030	(17012908)	656676.78	4193075.30	79.48777	(17122320)
653676.78	4193375.30	85.38893	(17120517)	653976.78	4193375.30	100.61687	(13012121)
654276.78	4193375.30	120.30212	(13013108)	654576.78	4193375.30	146.51847	(15010507)
654876.78	4193375.30	178.86494	(17123007)	655176.78	4193375.30	197.82371	(17122820)
655476.78	4193375.30	198.18882	(17013024)	655776.78	4193375.30	175.12282	(17020801)
656076.78	4193375.30	138.87803	(17012908)	656376.78	4193375.30	113.69171	(17122320)
656676.78	4193375.30	113.63638	(17011509)	653676.78	4193675.30	100.95375	(17021308)
653976.78	4193675.30	117.14256	(17021420)	654276.78	4193675.30	144.41687	(15010907)
654576.78	4193675.30	190.97902	(14021223)	654876.78	4193675.30	242.95586	(13123108)
655176.78	4193675.30	287.69538	(17122602)	655476.78	4193675.30	288.54005	(17012804)
655776.78	4193675.30	221.82191	(17012908)	656076.78	4193675.30	174.22133	(17121219)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK20 ***

INCLUDING SOURCE(S): STCK20 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
656376.78	4193675.30	143.32263	(17011509)	656676.78	4193675.30	90.39109	(17121906)
653676.78	4193975.30	102.48846	(15011009)	653976.78	4193975.30	126.56066	(17121304)
654276.78	4193975.30	173.85228	(17123023)	654576.78	4193975.30	243.50835	(17021420)
654876.78	4193975.30	352.75998	(16121303)	655176.78	4193975.30	524.97814	(17010208)
655476.78	4193975.30	468.14131	(17011301)	655776.78	4193975.30	294.75485	(17011509)
656076.78	4193975.30	176.55392	(17020824)	656376.78	4193975.30	128.06255	(15060806)
656676.78	4193975.30	98.25459	(14012017)	653676.78	4194275.30	104.38402	(17011505)
653976.78	4194275.30	135.81984	(17011505)	654276.78	4194275.30	185.39167	(17011505)
654576.78	4194275.30	272.79824	(17011505)	654876.78	4194275.30	453.90645	(17012802)
655176.78	4194275.30	1023.76588	(16110208)	655476.78	4194275.30	654.01690	(17030805)
655776.78	4194275.30	311.21441	(16010203)	656076.78	4194275.30	192.16896	(16010203)
656376.78	4194275.30	135.21003	(16010203)	656676.78	4194275.30	100.82272	(16010203)
653676.78	4194575.30	91.14848	(17120702)	653976.78	4194575.30	127.95877	(17122608)

654276.78	4194575.30	172.84742	(17011201)	654576.78	4194575.30	249.78135	(17020404)
654876.78	4194575.30	320.05455	(15022507)	655176.78	4194575.30	501.84754	(17020403)
655476.78	4194575.30	452.15013	(17022604)	655776.78	4194575.30	272.11500	(14012706)
656076.78	4194575.30	189.15367	(14011317)	656376.78	4194575.30	130.57568	(15121621)
656676.78	4194575.30	103.59681	(13032807)	653676.78	4194875.30	91.58428	(17122805)
653976.78	4194875.30	119.53034	(17020404)	654276.78	4194875.30	137.99805	(16010209)
654576.78	4194875.30	167.07583	(17123024)	654876.78	4194875.30	222.17757	(16111008)
655176.78	4194875.30	275.04964	(17020802)	655476.78	4194875.30	254.33607	(17022508)
655776.78	4194875.30	209.40068	(17122321)	656076.78	4194875.30	151.96551	(17123020)
656376.78	4194875.30	118.67968	(13121617)	656676.78	4194875.30	103.33212	(14091107)
653676.78	4195175.30	86.01059	(17122609)	653976.78	4195175.30	99.55379	(14110808)
654276.78	4195175.30	104.24580	(17010902)	654576.78	4195175.30	142.36755	(15090607)
654876.78	4195175.30	163.60200	(17120219)	655176.78	4195175.30	180.80299	(14122309)
655476.78	4195175.30	167.05440	(17120207)	655776.78	4195175.30	154.84974	(17021405)
656076.78	4195175.30	127.79273	(17122321)	656376.78	4195175.30	105.10351	(17013020)
656676.78	4195175.30	87.27489	(17121119)	653676.78	4195475.30	74.57762	(14110808)
653976.78	4195475.30	72.30665	(17010902)	654276.78	4195475.30	104.43185	(13011809)
654576.78	4195475.30	102.77755	(16022908)	654876.78	4195475.30	122.22982	(13123109)
655176.78	4195475.30	135.16354	(14122309)	655476.78	4195475.30	127.31718	(17012905)
655776.78	4195475.30	129.29351	(17022508)	656076.78	4195475.30	105.85134	(17022324)
656376.78	4195475.30	89.40829	(17122321)	656676.78	4195475.30	78.77851	(17122923)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** *** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK21 ***

INCLUDING SOURCE(S): STCK21 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
656165.71	4192787.75	84.49954	(17122318)	656126.40	4192764.99	81.74381	(17012804)
656103.65	4192731.89	78.82224	(17122319)	656093.30	4192690.51	75.59408	(17122319)
656217.44	4192771.20	83.80153	(17122318)	656279.50	4192760.85	80.08031	(17122920)
656341.57	4192727.75	77.27300	(17012903)	656366.40	4192707.06	76.71844	(17012903)
653815.06	4193437.51	72.97026	(15032607)	653776.43	4193429.79	70.21209	(15032607)
653798.32	4193413.05	72.02300	(15032607)	653708.18	4193118.16	62.02082	(13123102)
653730.07	4193102.71	61.45439	(13010906)	653753.25	4193085.97	60.86016	(13010906)
653800.90	4193053.77	61.65312	(14021223)	653882.02	4192964.92	70.84756	(16010309)
653907.78	4192962.34	75.23074	(16010309)	653945.12	4192954.62	80.80081	(16010309)
654067.45	4192886.37	78.49294	(16010309)	654108.66	4192861.90	69.14436	(16010309)
654140.85	4192841.30	63.79973	(13020802)	654376.51	4192702.22	66.70302	(14021408)
654399.69	4192673.89	70.57122	(14021408)	654024.74	4193417.88	80.94367	(17020505)
653831.84	4193501.47	75.26996	(17021403)	653915.64	4193528.15	78.86163	(17021403)
653813.62	4193608.32	79.78643	(17120517)	653676.78	4192475.30	62.31078	(16010309)
653976.78	4192475.30	52.51524	(15010507)	654276.78	4192475.30	61.27886	(14021408)
654576.78	4192475.30	65.55298	(13011517)	654876.78	4192475.30	64.40471	(14120706)
655176.78	4192475.30	94.58533	(17011609)	655476.78	4192475.30	89.50978	(15011209)

655776.78	4192475.30	76.14722 (17122917)	656076.78	4192475.30	71.65695 (17122701)
656376.78	4192475.30	67.99443 (17122920)	656676.78	4192475.30	63.37434 (17020801)
653676.78	4192775.30	58.78738 (16010309)	653976.78	4192775.30	72.56382 (16010309)
654276.78	4192775.30	65.37355 (15013104)	654576.78	4192775.30	78.86944 (14021408)
654876.78	4192775.30	78.79398 (14021105)	655176.78	4192775.30	107.36972 (17011609)
655476.78	4192775.30	105.78079 (15011209)	655776.78	4192775.30	92.94160 (17122917)
656076.78	4192775.30	80.82813 (17122319)	656376.78	4192775.30	79.24823 (17012903)
656676.78	4192775.30	71.18520 (17011208)	653676.78	4193075.30	59.77279 (13123102)
653976.78	4193075.30	74.28493 (16010309)	654276.78	4193075.30	81.99517 (16010309)
654576.78	4193075.30	86.79163 (13020205)	654876.78	4193075.30	98.04777 (14012608)
655176.78	4193075.30	112.56682 (17011609)	655476.78	4193075.30	127.94586 (15011209)
655776.78	4193075.30	107.97630 (17011203)	656076.78	4193075.30	105.07027 (17122318)
656376.78	4193075.30	90.00484 (17020801)	656676.78	4193075.30	80.91231 (14121216)
653676.78	4193375.30	65.74900 (17021403)	653976.78	4193375.30	77.64400 (13123102)
654276.78	4193375.30	96.34982 (16010309)	654576.78	4193375.30	103.90980 (15010507)
654876.78	4193375.30	127.61003 (14021408)	655176.78	4193375.30	137.29982 (15012509)
655476.78	4193375.30	162.71934 (17123009)	655776.78	4193375.30	146.05623 (17013024)
656076.78	4193375.30	130.50680 (17012903)	656376.78	4193375.30	108.38484 (13012517)
656676.78	4193375.30	81.93075 (14012217)	653676.78	4193675.30	73.90509 (17013106)
653976.78	4193675.30	88.71609 (17120517)	654276.78	4193675.30	104.60416 (15011205)
654576.78	4193675.30	132.89961 (16010309)	654876.78	4193675.30	152.59661 (14021122)
655176.78	4193675.30	178.33390 (14021105)	655476.78	4193675.30	217.88047 (17123009)
655776.78	4193675.30	192.73405 (17122319)	656076.78	4193675.30	160.91028 (17011208)

*** AERMOD - VERSION 19191 ***

977GSBU)\Documents\HRA\South S ***

*** AERMET - VERSION 18081 ***

*** C:\Users\Smith\Dropbox\My PC (DESKTOP-02/22/22

12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK21 ***

INCLUDING SOURCE(S): STCK21 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656376.78	4193675.30	118.05154 (17120121)	656676.78	4193675.30	107.50174 (17121219)
653676.78	4193975.30	83.69720 (17021308)	653976.78	4193975.30	102.92170 (17021308)
654276.78	4193975.30	124.17719 (17013106)	654576.78	4193975.30	153.88218 (17021403)
654876.78	4193975.30	203.80451 (13013108)	655176.78	4193975.30	256.90115 (15022608)
655476.78	4193975.30	320.55666 (17123009)	655776.78	4193975.30	274.41374 (17012903)
656076.78	4193975.30	193.98055 (17120121)	656376.78	4193975.30	171.79242 (17011509)
656676.78	4193975.30	106.21049 (17011509)	653676.78	4194275.30	97.79532 (15011009)
653976.78	4194275.30	106.89437 (17011605)	654276.78	4194275.30	137.09452 (17012823)
654576.78	4194275.30	188.66432 (17021308)	654876.78	4194275.30	270.69859 (17013106)
655176.78	4194275.30	404.11502 (15010401)	655476.78	4194275.30	563.39537 (17021904)
655776.78	4194275.30	411.53840 (17120121)	656076.78	4194275.30	228.89316 (17122619)
656376.78	4194275.30	153.37623 (15060806)	656676.78	4194275.30	111.40239 (17121319)
653676.78	4194575.30	88.32900 (17011505)	653976.78	4194575.30	111.13081 (17011505)
654276.78	4194575.30	145.86771 (17011505)	654576.78	4194575.30	202.80367 (17011505)
654876.78	4194575.30	305.14591 (17011505)	655176.78	4194575.30	548.09452 (17122119)

655476.78	4194575.30	27.97288 (13122610)	655776.78	4194575.30	519.40298 (17122720)
656076.78	4194575.30	268.48568 (16010203)	656376.78	4194575.30	173.66583 (14022208)
656676.78	4194575.30	124.12065 (14022208)	653676.78	4194875.30	80.69339 (17120702)
653976.78	4194875.30	96.81682 (17122608)	654276.78	4194875.30	138.75609 (17122608)
654576.78	4194875.30	190.16577 (17011201)	654876.78	4194875.30	264.40628 (17122609)
655176.78	4194875.30	369.77090 (17123021)	655476.78	4194875.30	502.24317 (17122408)
655776.78	4194875.30	393.07712 (17022408)	656076.78	4194875.30	239.43515 (13121617)
656376.78	4194875.30	163.45964 (14011317)	656676.78	4194875.30	123.80983 (13032807)
653676.78	4195175.30	83.12256 (17011201)	653976.78	4195175.30	101.79220 (17121007)
654276.78	4195175.30	126.76662 (17122609)	654576.78	4195175.30	148.04399 (15030108)
654876.78	4195175.30	172.58543 (17122909)	655176.78	4195175.30	241.25725 (17022607)
655476.78	4195175.30	284.28870 (17122408)	655776.78	4195175.30	237.01235 (17012921)
656076.78	4195175.30	185.75059 (17120704)	656376.78	4195175.30	146.87787 (17121119)
656676.78	4195175.30	110.03346 (14091107)	653676.78	4195475.30	76.34512 (17122609)
653976.78	4195475.30	88.16935 (16010209)	654276.78	4195475.30	104.72146 (14110808)
654576.78	4195475.30	108.71138 (17122909)	654876.78	4195475.30	142.86839 (16111008)
655176.78	4195475.30	158.39063 (13040107)	655476.78	4195475.30	181.66974 (17122408)
655776.78	4195475.30	174.98320 (17022508)	656076.78	4195475.30	147.21462 (17022324)
656376.78	4195475.30	120.39049 (17120704)	656676.78	4195475.30	97.79016 (17013020)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK22 ***
INCLUDING SOURCE(S): STCK22 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	103.82438 (17122318)	656126.40	4192764.99	100.42211 (17012804)
656103.65	4192731.89	96.41081 (17122319)	656093.30	4192690.51	93.67687 (17122701)
656217.44	4192771.20	102.13778 (17122318)	656279.50	4192760.85	95.76762 (17122920)
656341.57	4192727.75	95.34855 (17012903)	656366.40	4192707.06	93.34232 (17012903)
653815.06	4193437.51	76.73700 (17013106)	653776.43	4193429.79	74.45848 (17013106)
653798.32	4193413.05	75.09477 (17013106)	653708.18	4193118.16	64.65379 (15010907)
653730.07	4193102.71	64.90215 (17021403)	653753.25	4193085.97	64.95252 (17021403)
653800.90	4193053.77	67.37908 (15032607)	653882.02	4192964.92	67.19163 (17020505)
653907.78	4192962.34	67.74805 (13123102)	653945.12	4192954.62	68.78920 (13123102)
654067.45	4192886.37	70.48064 (13013108)	654108.66	4192861.90	72.57511 (13013108)
654140.85	4192841.30	80.69473 (16010309)	654376.51	4192702.22	72.13203 (13020802)
654399.69	4192673.89	73.02142 (15010507)	654024.74	4193417.88	86.86322 (17120517)
653831.84	4193501.47	81.25957 (17021420)	653915.64	4193528.15	85.58053 (17021420)
653813.62	4193608.32	86.15324 (17021308)	653676.78	4192475.30	52.47950 (13013108)
653976.78	4192475.30	75.48890 (16010309)	654276.78	4192475.30	63.16369 (15010507)
654576.78	4192475.30	77.16395 (14021408)	654876.78	4192475.30	75.87853 (14012608)
655176.78	4192475.30	79.70667 (15010901)	655476.78	4192475.30	87.37935 (15011209)
655776.78	4192475.30	87.30031 (17120822)	656076.78	4192475.30	84.80143 (17122701)
656376.78	4192475.30	80.70507 (17122920)	656676.78	4192475.30	72.77502 (17020801)

653676.78	4192775.30	57.16308 (13123102)	653976.78	4192775.30	65.87697 (13013108)
654276.78	4192775.30	91.46175 (16010309)	654576.78	4192775.30	81.65191 (15013104)
654876.78	4192775.30	100.40647 (13011517)	655176.78	4192775.30	100.02864 (15012509)
655476.78	4192775.30	104.40532 (17122820)	655776.78	4192775.30	109.45621 (17120822)
656076.78	4192775.30	98.38084 (17122319)	656376.78	4192775.30	92.79903 (17012903)
656676.78	4192775.30	82.80178 (17120120)	653676.78	4193075.30	62.56648 (17021403)
653976.78	4193075.30	72.47537 (17020505)	654276.78	4193075.30	85.33340 (13013108)
654576.78	4193075.30	110.20972 (16010309)	654876.78	4193075.30	116.68940 (14021408)
655176.78	4193075.30	127.24258 (14021105)	655476.78	4193075.30	144.25381 (17011609)
655776.78	4193075.30	148.71537 (17122917)	656076.78	4193075.30	133.17091 (17122620)
656376.78	4193075.30	109.72155 (17011208)	656676.78	4193075.30	95.92184 (17012908)
653676.78	4193375.30	69.74410 (17013106)	653976.78	4193375.30	83.74522 (17120517)
654276.78	4193375.30	97.52656 (13012121)	654576.78	4193375.30	116.80665 (13013108)
654876.78	4193375.30	140.13752 (15010507)	655176.78	4193375.30	174.54979 (17123007)
655476.78	4193375.30	194.58848 (17011609)	655776.78	4193375.30	185.61142 (17013024)
656076.78	4193375.30	163.91933 (17020801)	656376.78	4193375.30	137.45740 (14121216)
656676.78	4193375.30	112.00677 (17122320)	653676.78	4193675.30	76.64513 (17021308)
653976.78	4193675.30	97.91240 (17021308)	654276.78	4193675.30	111.81678 (17013106)
654576.78	4193675.30	141.54137 (15010907)	654876.78	4193675.30	178.21676 (14021223)
655176.78	4193675.30	228.43514 (14021122)	655476.78	4193675.30	276.12367 (17121903)
655776.78	4193675.30	281.75269 (17012920)	656076.78	4193675.30	220.72244 (13012517)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK22 ***

INCLUDING SOURCE(S): STCK22 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)
656376.78	4193675.30	174.27877 (17122320)	656676.78	4193675.30	155.38804 (17011509)
653676.78	4193975.30	90.59299 (15011009)	653976.78	4193975.30	98.53196 (17011605)
654276.78	4193975.30	123.83666 (17013006)	654576.78	4193975.30	163.16371 (17123023)
654876.78	4193975.30	231.06848 (17021420)	655176.78	4193975.30	332.11303 (15021624)
655476.78	4193975.30	491.79201 (14010617)	655776.78	4193975.30	444.00044 (17020801)
656076.78	4193975.30	307.22375 (17121320)	656376.78	4193975.30	185.32176 (17121906)
656676.78	4193975.30	129.56967 (15060806)	653676.78	4194275.30	87.63739 (13121509)
653976.78	4194275.30	105.69616 (13121509)	654276.78	4194275.30	129.70054 (17011505)
654576.78	4194275.30	174.27824 (17011505)	654876.78	4194275.30	251.52384 (17013008)
655176.78	4194275.30	423.04777 (17011804)	655476.78	4194275.30	1165.68876 (16020517)
655776.78	4194275.30	712.78972 (15010917)	656076.78	4194275.30	320.82497 (17122621)
656376.78	4194275.30	198.95177 (17122621)	656676.78	4194275.30	135.20860 (17122621)
653676.78	4194575.30	80.12589 (13122609)	653976.78	4194575.30	94.44810 (17120702)
654276.78	4194575.30	119.63023 (17122608)	654576.78	4194575.30	163.97222 (17122608)
654876.78	4194575.30	241.96281 (17121007)	655176.78	4194575.30	320.78204 (17121808)
655476.78	4194575.30	536.13821 (17020407)	655776.78	4194575.30	480.28466 (17022604)
656076.78	4194575.30	283.89069 (14012706)	656376.78	4194575.30	192.73435 (14011317)

656676.78	4194575.30	137.88588	(13032807)	653676.78	4194875.30	75.20758	(17011201)
653976.78	4194875.30	92.15454	(17120707)	654276.78	4194875.30	120.24468	(17020404)
654576.78	4194875.30	146.74335	(17122609)	654876.78	4194875.30	161.74116	(14110808)
655176.78	4194875.30	223.30698	(16111008)	655476.78	4194875.30	275.47670	(17122622)
655776.78	4194875.30	255.35031	(15011408)	656076.78	4194875.30	216.14263	(17122321)
656376.78	4194875.30	158.86023	(17123020)	656676.78	4194875.30	123.72148	(13121617)
653676.78	4195175.30	73.42876	(17020404)	653976.78	4195175.30	88.69308	(17122609)
654276.78	4195175.30	96.61499	(15030108)	654576.78	4195175.30	104.44387	(17123024)
654876.78	4195175.30	143.62571	(13011809)	655176.78	4195175.30	170.88201	(16022908)
655476.78	4195175.30	181.13981	(17120618)	655776.78	4195175.30	178.33722	(17120207)
656076.78	4195175.30	157.14835	(17021405)	656376.78	4195175.30	134.61654	(17122321)
656676.78	4195175.30	106.58690	(17013020)	653676.78	4195475.30	65.35981	(16010209)
653976.78	4195475.30	75.68916	(14110808)	654276.78	4195475.30	73.33206	(17010902)
654576.78	4195475.30	105.00768	(17122909)	654876.78	4195475.30	101.21592	(17121208)
655176.78	4195475.30	124.37573	(13123109)	655476.78	4195475.30	135.17066	(14122309)
655776.78	4195475.30	126.78728	(17012905)	656076.78	4195475.30	136.26379	(17022508)
656376.78	4195475.30	109.43531	(17022324)	656676.78	4195475.30	90.63572	(17122321)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK23 ***
INCLUDING SOURCE(S): STCK23 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)

656165.71	4192787.75	124.11431	(17120822)	656126.40	4192764.99	121.55618	(15011509)
656103.65	4192731.89	121.72397	(15011509)	656093.30	4192690.51	117.96831	(15011509)
656217.44	4192771.20	128.21383	(17122917)	656279.50	4192760.85	116.78822	(17011203)
656341.57	4192727.75	117.92882	(17013024)	656366.40	4192707.06	115.86878	(17013024)
653815.06	4193437.51	64.85536	(13040307)	653776.43	4193429.79	63.10979	(13040307)
653798.32	4193413.05	65.51358	(17021308)	653708.18	4193118.16	57.61630	(17021420)
653730.07	4193102.71	57.17138	(17021420)	653753.25	4193085.97	56.14354	(17013106)
653800.90	4193053.77	57.21101	(17013106)	653882.02	4192964.92	58.25096	(17120517)
653907.78	4192962.34	59.56549	(17120517)	653945.12	4192954.62	60.63413	(17120517)
654067.45	4192886.37	60.91461	(17021403)	654108.66	4192861.90	62.26653	(15032607)
654140.85	4192841.30	63.26248	(15032607)	654376.51	4192702.22	64.58903	(14021223)
654399.69	4192673.89	65.01328	(13013108)	654024.74	4193417.88	77.85280	(17021308)
653831.84	4193501.47	64.82947	(17123023)	653915.64	4193528.15	68.31062	(17123023)
653813.62	4193608.32	65.46084	(17013006)	653676.78	4192475.30	46.38584	(15032607)
653976.78	4192475.30	51.42801	(13123102)	654276.78	4192475.30	59.31305	(13013108)
654576.78	4192475.30	80.39178	(16010309)	654876.78	4192475.30	71.21193	(15013104)
655176.78	4192475.30	86.27966	(13011517)	655476.78	4192475.30	86.17249	(13012120)
655776.78	4192475.30	119.06277	(17011609)	656076.78	4192475.30	101.12354	(15011209)
656376.78	4192475.30	94.39945	(17013024)	656676.78	4192475.30	93.38243	(17122318)
653676.78	4192775.30	50.63444	(17120517)	653976.78	4192775.30	57.18940	(15032607)
654276.78	4192775.30	65.00713	(13123102)	654576.78	4192775.30	76.07682	(13013108)

654876.78	4192775.30	94.01602 (16010309)	655176.78	4192775.30	95.56625 (13020205)
655476.78	4192775.30	105.89189 (14012608)	655776.78	4192775.30	140.54471 (17011609)
656076.78	4192775.30	124.94552 (15011509)	656376.78	4192775.30	120.49170 (17122701)
656676.78	4192775.30	112.27543 (17012903)	653676.78	4193075.30	55.25699 (17021420)
653976.78	4193075.30	64.83702 (17121504)	654276.78	4193075.30	72.04691 (15010907)
654576.78	4193075.30	84.56237 (13010908)	654876.78	4193075.30	103.17267 (13013108)
655176.78	4193075.30	116.06702 (13020802)	655476.78	4193075.30	143.64953 (13011517)
655776.78	4193075.30	151.91894 (14012501)	656076.78	4193075.30	163.88311 (15011509)
656376.78	4193075.30	151.68661 (17012804)	656676.78	4193075.30	126.27388 (17011208)
653676.78	4193375.30	60.94627 (17021308)	653976.78	4193375.30	73.83974 (17021308)
654276.78	4193375.30	82.95952 (17021420)	654576.78	4193375.30	99.60070 (17121504)
654876.78	4193375.30	118.76103 (13012121)	655176.78	4193375.30	149.73424 (13013108)
655476.78	4193375.30	180.00440 (14021122)	655776.78	4193375.30	213.78182 (13012120)
656076.78	4193375.30	223.57163 (15011509)	656376.78	4193375.30	211.60365 (17012903)
656676.78	4193375.30	167.50186 (17012908)	653676.78	4193675.30	61.47179 (17011605)
653976.78	4193675.30	72.13618 (17121304)	654276.78	4193675.30	86.42201 (17121823)
654576.78	4193675.30	113.76144 (17021308)	654876.78	4193675.30	138.81832 (17120203)
655176.78	4193675.30	182.81125 (17120517)	655476.78	4193675.30	241.88361 (14021223)
655776.78	4193675.30	332.37967 (17123007)	656076.78	4193675.30	381.55819 (17122921)

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*** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK23 ***
INCLUDING SOURCE(S): STCK23 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656376.78	4193675.30	295.19588 (17011508)	656676.78	4193675.30	214.86336 (17121219)
653676.78	4193975.30	74.46173 (13121509)	653976.78	4193975.30	83.78847 (13121509)
654276.78	4193975.30	99.08717 (15011009)	654576.78	4193975.30	123.43778 (15011009)
654876.78	4193975.30	151.99573 (17022506)	655176.78	4193975.30	211.29336 (17013105)
655476.78	4193975.30	323.85987 (17123106)	655776.78	4193975.30	573.54133 (15020520)
656076.78	4193975.30	744.14644 (13010523)	656376.78	4193975.30	389.07652 (17122619)
656676.78	4193975.30	215.37533 (17121319)	653676.78	4194275.30	63.40312 (17013107)
653976.78	4194275.30	75.58066 (17013107)	654276.78	4194275.30	90.43998 (17013107)
654576.78	4194275.30	117.12550 (17011121)	654876.78	4194275.30	155.50040 (17011121)
655176.78	4194275.30	213.68230 (17120702)	655476.78	4194275.30	327.64375 (17120901)
655776.78	4194275.30	620.35698 (17030206)	656076.78	4194275.30	833.00533 (13022108)
656376.78	4194275.30	405.72388 (15010318)	656676.78	4194275.30	233.84478 (14010519)
653676.78	4194575.30	67.83292 (13122609)	653976.78	4194575.30	68.83764 (13122609)
654276.78	4194575.30	90.16459 (17122608)	654576.78	4194575.30	109.61649 (17011201)
654876.78	4194575.30	142.52025 (17122805)	655176.78	4194575.30	194.68076 (17122609)
655476.78	4194575.30	223.98790 (17123024)	655776.78	4194575.30	338.52507 (17022607)
656076.78	4194575.30	373.42530 (17120207)	656376.78	4194575.30	304.01137 (17122321)
656676.78	4194575.30	204.87874 (17121119)	653676.78	4194875.30	59.23032 (17011201)
653976.78	4194875.30	68.36126 (17120707)	654276.78	4194875.30	83.71057 (17121007)

654576.78	4194875.30	103.94691	(17122609)	654876.78	4194875.30	117.80707	(15030108)
655176.78	4194875.30	132.35091	(17123024)	655476.78	4194875.30	170.55225	(16111008)
655776.78	4194875.30	204.90997	(13040107)	656076.78	4194875.30	208.00479	(13020121)
656376.78	4194875.30	194.54240	(17012921)	656676.78	4194875.30	160.73240	(17122321)
653676.78	4195175.30	57.91313	(17020404)	653976.78	4195175.30	66.17369	(17122609)
654276.78	4195175.30	75.15378	(16010209)	654576.78	4195175.30	88.22049	(14110808)
654876.78	4195175.30	88.11716	(17010902)	655176.78	4195175.30	121.60780	(13011809)
655476.78	4195175.30	143.40767	(16022908)	655776.78	4195175.30	167.04016	(17012717)
656076.78	4195175.30	153.97870	(15011909)	656376.78	4195175.30	165.21887	(17022508)
656676.78	4195175.30	127.19458	(17022324)	653676.78	4195475.30	51.39827	(16010209)
653976.78	4195475.30	57.27527	(15030108)	654276.78	4195475.30	65.39424	(14110808)
654576.78	4195475.30	63.34286	(17010902)	654876.78	4195475.30	91.87027	(13011809)
655176.78	4195475.30	86.94076	(15090607)	655476.78	4195475.30	103.23865	(13123109)
655776.78	4195475.30	121.94703	(17012717)	656076.78	4195475.30	118.15296	(15011909)
656376.78	4195475.30	111.04884	(17121401)	656676.78	4195475.30	98.81966	(17012921)

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK24 ***

INCLUDING SOURCE(S): STCK24 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
656165.71	4192787.75	141.17403	(17011609)	656126.40	4192764.99	143.69678	(17011609)
656103.65	4192731.89	139.59261	(17011609)	656093.30	4192690.51	135.66730	(17011609)
656217.44	4192771.20	119.66794	(17122820)	656279.50	4192760.85	133.22728	(17123009)
656341.57	4192727.75	133.86030	(17123009)	656366.40	4192707.06	125.73429	(15011209)
653815.06	4193437.51	53.56150	(17121823)	653776.43	4193429.79	52.28534	(17121823)
653798.32	4193413.05	53.29185	(17121823)	653708.18	4193118.16	52.50674	(17021308)
653730.07	4193102.71	51.17471	(17021308)	653753.25	4193085.97	50.54360	(17011204)
653800.90	4193053.77	51.23987	(17120203)	653882.02	4192964.92	50.54022	(17013106)
653907.78	4192962.34	51.36080	(17013106)	653945.12	4192954.62	51.99812	(17013106)
654067.45	4192886.37	54.42464	(17121504)	654108.66	4192861.90	55.21780	(17120517)
654140.85	4192841.30	55.17196	(17120517)	654376.51	4192702.22	57.95060	(15011205)
654399.69	4192673.89	57.31542	(13010908)	654024.74	4193417.88	59.87816	(17123023)
653831.84	4193501.47	55.29582	(17013006)	653915.64	4193528.15	57.95745	(17013006)
653813.62	4193608.32	55.99130	(17011605)	653676.78	4192475.30	41.02598	(15010907)
653976.78	4192475.30	46.91041	(15032607)	654276.78	4192475.30	51.87425	(13123102)
654576.78	4192475.30	58.95304	(13013108)	654876.78	4192475.30	83.35888	(16010309)
655176.78	4192475.30	71.80869	(13012423)	655476.78	4192475.30	87.12105	(14021408)
655776.78	4192475.30	86.10912	(14021105)	656076.78	4192475.30	120.07018	(17011609)
656376.78	4192475.30	107.29835	(15011209)	656676.78	4192475.30	93.88054	(17013024)
653676.78	4192775.30	45.03696	(17121504)	653976.78	4192775.30	51.12301	(17120517)
654276.78	4192775.30	55.89845	(17021403)	654576.78	4192775.30	64.87134	(17020505)
654876.78	4192775.30	75.02126	(13013108)	655176.78	4192775.30	100.93619	(16010309)
655476.78	4192775.30	98.11505	(13020205)	655776.78	4192775.30	109.39548	(17122918)

656076.78	4192775.30	134.35252 (17011609)	656376.78	4192775.30	127.46682 (15011209)
656676.78	4192775.30	123.75283 (17013024)	653676.78	4193075.30	49.21413 (17021308)
653976.78	4193075.30	55.97118 (17021420)	654276.78	4193075.30	63.48592 (17121504)
654576.78	4193075.30	71.32087 (17120517)	654876.78	4193075.30	85.33925 (15011205)
655176.78	4193075.30	99.89945 (13013108)	655476.78	4193075.30	119.20382 (16010309)
655776.78	4193075.30	143.46442 (14021408)	656076.78	4193075.30	152.56671 (15012509)
656376.78	4193075.30	165.32137 (15011509)	656676.78	4193075.30	157.36663 (17122319)
653676.78	4193375.30	51.08957 (14011709)	653976.78	4193375.30	59.70063 (13040307)
654276.78	4193375.30	74.57482 (17021308)	654576.78	4193375.30	81.99442 (17021420)
654876.78	4193375.30	99.67410 (17121504)	655176.78	4193375.30	117.05351 (17021403)
655476.78	4193375.30	144.43663 (14021223)	655776.78	4193375.30	184.85944 (15010507)
656076.78	4193375.30	217.00286 (13012120)	656376.78	4193375.30	236.55145 (15011509)
656676.78	4193375.30	219.91289 (17012903)	653676.78	4193675.30	61.15115 (15011009)
653976.78	4193675.30	64.04330 (15011009)	654276.78	4193675.30	71.86040 (17011605)
654576.78	4193675.30	86.19998 (17013006)	654876.78	4193675.30	105.96385 (17123023)
655176.78	4193675.30	137.86326 (17021308)	655476.78	4193675.30	181.36017 (17121504)
655776.78	4193675.30	248.66371 (13010906)	656076.78	4193675.30	343.04185 (15022608)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK24 ***
INCLUDING SOURCE(S): STCK24 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)					
656376.78	4193675.30	393.61016 (17122921)	656676.78	4193675.30	308.46575 (17011508)
653676.78	4193975.30	66.39689 (13121509)	653976.78	4193975.30	75.51081 (13121509)
654276.78	4193975.30	85.90278 (13121509)	654576.78	4193975.30	94.80873 (13121509)
654876.78	4193975.30	116.88532 (15011009)	655176.78	4193975.30	149.67005 (15011009)
655476.78	4193975.30	204.71775 (17022506)	655776.78	4193975.30	317.24616 (17121207)
656076.78	4193975.30	567.73356 (15021806)	656376.78	4193975.30	861.62765 (16041107)
656676.78	4193975.30	410.64033 (17012819)	653676.78	4194275.30	53.42252 (17013107)
653976.78	4194275.30	62.20630 (17013107)	654276.78	4194275.30	72.55676 (17013107)
654576.78	4194275.30	90.52280 (17011121)	654876.78	4194275.30	116.30038 (17011121)
655176.78	4194275.30	152.22066 (17121322)	655476.78	4194275.30	205.52251 (17120702)
655776.78	4194275.30	321.76476 (17123105)	656076.78	4194275.30	531.65693 (17012718)
656376.78	4194275.30	812.77324 (17032421)	656676.78	4194275.30	415.86703 (16010303)
653676.78	4194575.30	62.44828 (13122609)	653976.78	4194575.30	65.95541 (13122609)
654276.78	4194575.30	69.45809 (17122608)	654576.78	4194575.30	88.32596 (17122608)
654876.78	4194575.30	109.84707 (17011201)	655176.78	4194575.30	141.03236 (17121007)
655476.78	4194575.30	190.01087 (17122609)	655776.78	4194575.30	214.75750 (17123024)
656076.78	4194575.30	311.60191 (17022607)	656376.78	4194575.30	347.35070 (13012506)
656676.78	4194575.30	298.97882 (17012601)	653676.78	4194875.30	49.53748 (17122702)
653976.78	4194875.30	59.79377 (17011201)	654276.78	4194875.30	67.47354 (17120707)
654576.78	4194875.30	83.48382 (17020404)	654876.78	4194875.30	102.83286 (17122609)
655176.78	4194875.30	114.69656 (15030108)	655476.78	4194875.30	127.40730 (17123024)

655776.78	4194875.30	162.61053	(16111008)	656076.78	4194875.30	194.33580	(13040107)
656376.78	4194875.30	211.66988	(15011909)	656676.78	4194875.30	194.39072	(17122223)
653676.78	4195175.30	49.00294	(17121007)	653976.78	4195175.30	57.12869	(17020404)
654276.78	4195175.30	66.04710	(17122609)	654576.78	4195175.30	74.03379	(16010209)
654876.78	4195175.30	86.53431	(14110808)	655176.78	4195175.30	85.57046	(17010902)
655476.78	4195175.30	118.09986	(13011809)	655776.78	4195175.30	137.53632	(16022908)
656076.78	4195175.30	161.35028	(17012717)	656376.78	4195175.30	154.96339	(15011909)
656676.78	4195175.30	156.13298	(17022508)	653676.78	4195475.30	46.74480	(17122609)
653976.78	4195475.30	51.26006	(16010209)	654276.78	4195475.30	56.30583	(15030108)
654576.78	4195475.30	63.67110	(14110808)	654876.78	4195475.30	61.84566	(17010902)
655176.78	4195475.30	89.71178	(13011809)	655476.78	4195475.30	85.50128	(15090607)
655776.78	4195475.30	99.06524	(13123109)	656076.78	4195475.30	123.78212	(17012717)
656376.78	4195475.30	115.87850	(15011909)	656676.78	4195475.30	107.05901	(17121401)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK25 ***
INCLUDING SOURCE(S): STCK25 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
656165.71	4192787.75	173.50839	(17123009)	656126.40	4192764.99	160.80546	(17123009)
656103.65	4192731.89	143.08994	(17123009)	656093.30	4192690.51	134.02076	(14021321)
656217.44	4192771.20	153.37156	(15011509)	656279.50	4192760.85	148.61637	(17120822)
656341.57	4192727.75	154.02584	(17122917)	656366.40	4192707.06	150.01982	(17122917)
653815.06	4193437.51	60.65538	(15011009)	653776.43	4193429.79	59.10909	(15011009)
653798.32	4193413.05	60.27919	(17011605)	653708.18	4193118.16	57.03531	(13040307)
653730.07	4193102.71	58.23397	(13040307)	653753.25	4193085.97	59.74515	(17021308)
653800.90	4193053.77	62.79422	(17021308)	653882.02	4192964.92	58.60643	(17011204)
653907.78	4192962.34	59.48933	(17120203)	653945.12	4192954.62	60.41510	(17120203)
654067.45	4192886.37	61.68944	(17013106)	654108.66	4192861.90	62.68679	(17121504)
654140.85	4192841.30	64.89430	(17121504)	654376.51	4192702.22	66.66896	(15032607)
654399.69	4192673.89	67.80330	(15032607)	654024.74	4193417.88	67.26867	(17121304)
653831.84	4193501.47	71.05036	(15011009)	653915.64	4193528.15	75.84389	(15011009)
653813.62	4193608.32	75.00508	(15011009)	653676.78	4192475.30	47.22507	(17120517)
653976.78	4192475.30	51.75617	(17021403)	654276.78	4192475.30	58.68065	(13010908)
654576.78	4192475.30	66.14208	(14021223)	654876.78	4192475.30	98.60206	(16010309)
655176.78	4192475.30	86.27954	(13012423)	655476.78	4192475.30	105.57353	(13011517)
655776.78	4192475.30	106.60047	(15012509)	656076.78	4192475.30	111.93009	(15011209)
656376.78	4192475.30	123.00950	(17122917)	656676.78	4192475.30	110.29606	(17012804)
653676.78	4192775.30	51.33541	(17021420)	653976.78	4192775.30	58.54732	(17121504)
654276.78	4192775.30	65.15300	(17120517)	654576.78	4192775.30	76.16380	(15032607)
654876.78	4192775.30	87.13198	(14021223)	655176.78	4192775.30	125.82742	(16010309)
655476.78	4192775.30	121.51533	(13020205)	655776.78	4192775.30	137.35095	(14021105)
656076.78	4192775.30	147.96095	(17122820)	656376.78	4192775.30	152.94354	(17122917)
656676.78	4192775.30	139.57595	(17122920)	653676.78	4193075.30	56.88056	(13040307)

653976.78 4193075.30 67.42891 (17021308) 654276.78 4193075.30 74.37804 (17021420)
654576.78 4193075.30 88.40362 (17121504) 654876.78 4193075.30 102.72786 (17021403)
655176.78 4193075.30 125.79128 (13010906) 655476.78 4193075.30 159.13392 (16010309)
655776.78 4193075.30 188.99487 (17123007) 656076.78 4193075.30 204.11457 (17122820)
656376.78 4193075.30 207.39273 (17013024) 656676.78 4193075.30 176.78663 (17020801)
653676.78 4193375.30 56.50500 (17011605) 653976.78 4193375.30 65.44731 (17013006)
654276.78 4193375.30 77.73599 (17121823) 654576.78 4193375.30 100.01132 (17021308)
654876.78 4193375.30 120.82143 (17120203) 655176.78 4193375.30 155.45155 (17121504)
655476.78 4193375.30 195.10369 (17020505) 655776.78 4193375.30 267.24347 (13012423)
656076.78 4193375.30 323.24527 (17121903) 656376.78 4193375.30 320.84891 (17122518)
656676.78 4193375.30 231.44455 (17012908) 653676.78 4193675.30 64.35577 (13121509)
653976.78 4193675.30 77.48193 (15011009) 654276.78 4193675.30 93.72181 (15011009)
654576.78 4193675.30 114.77229 (15011009) 654876.78 4193675.30 125.87554 (17011205)
655176.78 4193675.30 166.73050 (17012823) 655476.78 4193675.30 242.15380 (17123106)
655776.78 4193675.30 382.12136 (17120517) 656076.78 4193675.30 616.23067 (13032803)
*** AERMOD - VERSION 19191 *** ** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56
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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*
*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK25 ***
INCLUDING SOURCE(S): STCK25 ,
*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **
X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M) Y-COORD (M) CONC
(YYMMDDHH)

656376.78 4193675.30 524.50831 (17021407) 656676.78 4193675.30 289.74268 (17122619)
653676.78 4193975.30 57.82633 (17121203) 653976.78 4193975.30 68.70591 (17121203)
654276.78 4193975.30 83.15258 (17121203) 654576.78 4193975.30 101.62475 (17121203)
654876.78 4193975.30 131.81111 (17013107) 655176.78 4193975.30 177.27185 (17013107)
655476.78 4193975.30 263.17774 (17122903) 655776.78 4193975.30 443.57341 (17013104)
656076.78 4193975.30 1099.22267 (13103108) 656376.78 4193975.30 669.82063 (15120623)
656676.78 4193975.30 315.84259 (14021603) 653676.78 4194275.30 66.36626 (13122609)
653976.78 4194275.30 74.02415 (13122609) 654276.78 4194275.30 77.07050 (13122609)
654576.78 4194275.30 98.41937 (17122608) 654876.78 4194275.30 122.75920 (17122702)
655176.78 4194275.30 165.42348 (17120707) 655476.78 4194275.30 232.46156 (17122609)
655776.78 4194275.30 288.80585 (14121304) 656076.78 4194275.30 415.22412 (17122622)
656376.78 4194275.30 389.08035 (17011608) 656676.78 4194275.30 268.67598 (17123020)
653676.78 4194575.30 54.75022 (17122608) 653976.78 4194575.30 64.24175 (17011201)
654276.78 4194575.30 74.69274 (17011201) 654576.78 4194575.30 92.95419 (17121007)
654876.78 4194575.30 117.97193 (17122609) 655176.78 4194575.30 131.92986 (15030108)
655476.78 4194575.30 149.21235 (14012407) 655776.78 4194575.30 193.33873 (17121208)
656076.78 4194575.30 240.98739 (17020802) 656376.78 4194575.30 228.86961 (17121401)
656676.78 4194575.30 199.07313 (17012601) 653676.78 4194875.30 51.98729 (17121007)
653976.78 4194875.30 62.65251 (17020404) 654276.78 4194875.30 73.10727 (17122609)
654576.78 4194875.30 82.05939 (16010209) 654876.78 4194875.30 96.27728 (14110808)
655176.78 4194875.30 94.45857 (14012407) 655476.78 4194875.30 134.99365 (15090607)
655776.78 4194875.30 146.10533 (17120219) 656076.78 4194875.30 165.01622 (14122309)
656376.78 4194875.30 158.09020 (17120207) 656676.78 4194875.30 139.69240 (17012921)

653676.78	4195175.30	50.66313	(17122609)	653976.78	4195175.30	55.97109	(16010209)
654276.78	4195175.30	61.17494	(15030108)	654576.78	4195175.30	66.51186	(14110808)
654876.78	4195175.30	66.87873	(14012407)	655176.78	4195175.30	99.22654	(15090607)
655476.78	4195175.30	106.03803	(16022908)	655776.78	4195175.30	110.56462	(13123109)
656076.78	4195175.30	125.60482	(14122309)	656376.78	4195175.30	117.19544	(17012905)
656676.78	4195175.30	129.65479	(17022508)	653676.78	4195475.30	45.70963	(16010209)
653976.78	4195475.30	51.74003	(14060906)	654276.78	4195475.30	48.45930	(14060906)
654576.78	4195475.30	50.46282	(14012407)	654876.78	4195475.30	76.34135	(14010209)
655176.78	4195475.30	74.03907	(15090607)	655476.78	4195475.30	86.97632	(16022908)
655776.78	4195475.30	103.17896	(17012717)	656076.78	4195475.30	97.69176	(14122309)
656376.78	4195475.30	81.35749	(17123006)	656676.78	4195475.30	95.47753	(17022508)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: STCK26 ***

INCLUDING SOURCE(S): STCK26 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
656165.71	4192787.75	150.51860	(17122701)	656126.40	4192764.99	149.34020	(17013024)
656103.65	4192731.89	137.84847	(17013024)	656093.30	4192690.51	135.80810	(17011203)
656217.44	4192771.20	139.03147	(17122701)	656279.50	4192760.85	140.41444	(17012804)
656341.57	4192727.75	137.48532	(17122620)	656366.40	4192707.06	134.56937	(17122920)
653815.06	4193437.51	71.62653	(17013006)	653776.43	4193429.79	69.67066	(17013006)
653798.32	4193413.05	70.91944	(17013006)	653708.18	4193118.16	70.16257	(17021308)
653730.07	4193102.71	69.07544	(17021308)	653753.25	4193085.97	66.78950	(17021308)
653800.90	4193053.77	67.54693	(17120203)	653882.02	4192964.92	67.35890	(17013106)
653907.78	4192962.34	67.92800	(17013106)	653945.12	4192954.62	69.68699	(17121504)
654067.45	4192886.37	73.06613	(17120517)	654108.66	4192861.90	71.58486	(15010907)
654140.85	4192841.30	72.49551	(15010907)	654376.51	4192702.22	77.53619	(13123102)
654399.69	4192673.89	76.00198	(13010906)	654024.74	4193417.88	81.39175	(17121823)
653831.84	4193501.47	74.61643	(17011605)	653915.64	4193528.15	78.77583	(17011605)
653813.62	4193608.32	87.93881	(15011009)	653676.78	4192475.30	51.61402	(15032607)
653976.78	4192475.30	59.55158	(17020505)	654276.78	4192475.30	66.80746	(13013108)
654576.78	4192475.30	98.14827	(16010309)	654876.78	4192475.30	85.86560	(15013104)
655176.78	4192475.30	106.07538	(13011517)	655476.78	4192475.30	108.00728	(15012509)
655776.78	4192475.30	117.78932	(15011209)	656076.78	4192475.30	121.81635	(17122917)
656376.78	4192475.30	108.24287	(17012804)	656676.78	4192475.30	100.44741	(17020801)
653676.78	4192775.30	59.33094	(17121504)	653976.78	4192775.30	65.27553	(15010907)
654276.78	4192775.30	76.75782	(15011205)	654576.78	4192775.30	87.98210	(14021223)
654876.78	4192775.30	122.39892	(16010309)	655176.78	4192775.30	122.24250	(14021408)
655476.78	4192775.30	135.24516	(13012120)	655776.78	4192775.30	144.69567	(14021321)
656076.78	4192775.30	146.29040	(17011203)	656376.78	4192775.30	136.71130	(17012903)
656676.78	4192775.30	116.56943	(17120120)	653676.78	4193075.30	66.15576	(17021308)
653976.78	4193075.30	74.85511	(17021420)	654276.78	4193075.30	88.75756	(17121504)
654576.78	4193075.30	102.00083	(17021403)	654876.78	4193075.30	124.92435	(13021704)

655176.78	4193075.30	152.50990	(13012124)	655476.78	4193075.30	190.55339	(17123007)
655776.78	4193075.30	207.93476	(17122820)	656076.78	4193075.30	202.87580	(17122701)
656376.78	4193075.30	167.86005	(17020801)	656676.78	4193075.30	130.59708	(17012908)
653676.78	4193375.30	65.90360	(17013006)	653976.78	4193375.30	78.47510	(17121823)
654276.78	4193375.30	103.58684	(17021308)	654576.78	4193375.30	122.14271	(17021420)
654876.78	4193375.30	157.11348	(17120517)	655176.78	4193375.30	201.39143	(13022803)
655476.78	4193375.30	262.50233	(14021122)	655776.78	4193375.30	322.87796	(17122602)
656076.78	4193375.30	312.74480	(17122518)	656376.78	4193375.30	224.28529	(17012908)
656676.78	4193375.30	183.80653	(17011509)	653676.78	4193675.30	79.62964	(15011009)
653976.78	4193675.30	97.73362	(15011009)	654276.78	4193675.30	112.75139	(15011009)
654576.78	4193675.30	130.89336	(17011605)	654876.78	4193675.30	171.12856	(17121207)
655176.78	4193675.30	246.11752	(17021308)	655476.78	4193675.30	370.42800	(15021101)
655776.78	4193675.30	605.03744	(17010208)	656076.78	4193675.30	495.63845	(17120121)

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK26 ***
INCLUDING SOURCE(S): STCK26 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)						

656376.78	4193675.30	276.53058	(17122619)	656676.78	4193675.30	167.26278	(17011303)
653676.78	4193975.30	68.70599	(17121203)	653976.78	4193975.30	83.72622	(17121203)
654276.78	4193975.30	104.67557	(17121203)	654576.78	4193975.30	133.00695	(17121203)
654876.78	4193975.30	183.22179	(17013107)	655176.78	4193975.30	266.60841	(17122903)
655476.78	4193975.30	457.88906	(17013005)	655776.78	4193975.30	1123.32313	(13110108)
656076.78	4193975.30	640.35223	(14011919)	656376.78	4193975.30	309.23197	(15020206)
656676.78	4193975.30	205.52872	(14022208)	653676.78	4194275.30	74.43390	(13122609)
653976.78	4194275.30	80.32326	(13122609)	654276.78	4194275.30	98.36998	(17122608)
654576.78	4194275.30	125.40845	(17122608)	654876.78	4194275.30	170.05390	(17120707)
655176.78	4194275.30	238.12028	(17122609)	655476.78	4194275.30	301.62210	(14121304)
655776.78	4194275.30	458.80582	(17122622)	656076.78	4194275.30	397.96945	(17011608)
656376.78	4194275.30	267.14734	(17121119)	656676.78	4194275.30	179.39147	(13031018)
653676.78	4194575.30	63.95857	(17122702)	653976.78	4194575.30	77.11451	(17011201)
654276.78	4194575.30	95.43730	(17121007)	654576.78	4194575.30	119.53769	(17122609)
654876.78	4194575.30	136.07809	(15030108)	655176.78	4194575.30	153.77550	(14012407)
655476.78	4194575.30	201.79577	(17121208)	655776.78	4194575.30	254.86348	(17120618)
656076.78	4194575.30	233.83232	(17022508)	656376.78	4194575.30	196.63189	(17012601)
656676.78	4194575.30	148.43265	(17013020)	653676.78	4194875.30	62.36735	(17020404)
653976.78	4194875.30	73.41242	(17122609)	654276.78	4194875.30	83.43845	(16010209)
654576.78	4194875.30	98.60382	(14110808)	654876.78	4194875.30	96.72933	(14012407)
655176.78	4194875.30	138.36577	(15090607)	655476.78	4194875.30	148.30012	(17120219)
655776.78	4194875.30	171.89981	(14122309)	656076.78	4194875.30	154.92709	(17120207)
656376.78	4194875.30	141.45331	(17021405)	656676.78	4194875.30	122.19702	(17122321)
653676.78	4195175.30	56.39762	(16010209)	653976.78	4195175.30	62.20023	(15030108)
654276.78	4195175.30	68.09728	(14110808)	654576.78	4195175.30	68.10693	(14012407)

654876.78 4195175.30 101.85531 (15090607) 655176.78 4195175.30 109.91308 (16022908)
655476.78 4195175.30 111.73809 (13123109) 655776.78 4195175.30 127.13375 (14122309)
656076.78 4195175.30 121.02277 (17012905) 656376.78 4195175.30 127.70533 (17022508)
656676.78 4195175.30 101.07378 (17022324) 653676.78 4195475.30 52.13132 (14110808)
653976.78 4195475.30 49.42015 (14060906) 654276.78 4195475.30 51.23706 (14012407)
654576.78 4195475.30 77.50518 (14010209) 654876.78 4195475.30 74.84936 (15090607)
655176.78 4195475.30 87.56966 (16022908) 655476.78 4195475.30 106.81205 (17012717)
655776.78 4195475.30 97.50647 (14122309) 656076.78 4195475.30 84.83336 (17012905)
656376.78 4195475.30 102.66461 (17022508) 656676.78 4195475.30 79.67460 (17012921)
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK27 ***
INCLUDING SOURCE(S): STCK27 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)						

656165.71	4192787.75	127.66980	(17012903)	656126.40	4192764.99	137.18256 (17012903)
656103.65	4192731.89	130.44343	(17012903)	656093.30	4192690.51	131.99958 (17122920)
656217.44	4192771.20	130.94608	(17020801)	656279.50	4192760.85	118.61157 (17020801)
656341.57	4192727.75	114.75069	(17011208)	656366.40	4192707.06	112.57380 (17011208)
653815.06	4193437.51	86.05136	(17121823)	653776.43	4193429.79	83.29710 (17121823)
653798.32	4193413.05	84.98634	(17121823)	653708.18	4193118.16	76.64597 (17021420)
653730.07	4193102.71	77.89054	(17021420)	653753.25	4193085.97	77.43674 (17021420)
653800.90	4193053.77	77.64723	(17013106)	653882.02	4192964.92	79.79381 (17120517)
653907.78	4192962.34	81.07435	(17120517)	653945.12	4192954.62	80.99944 (17120517)
654067.45	4192886.37	84.33443	(15032607)	654108.66	4192861.90	85.40186 (15011205)
654140.85	4192841.30	85.16279	(17020505)	654376.51	4192702.22	106.23382 (16010309)
654399.69	4192673.89	112.79090	(16010309)	654024.74	4193417.88	102.35796 (17021308)
653831.84	4193501.47	88.64667	(17013006)	653915.64	4193528.15	94.25687 (17013006)
653813.62	4193608.32	97.89298	(15011009)	653676.78	4192475.30	59.10968 (17020505)
653976.78	4192475.30	65.95164	(14021223)	654276.78	4192475.30	99.04566 (16010309)
654576.78	4192475.30	85.69061	(13012423)	654876.78	4192475.30	106.50784 (13011517)
655176.78	4192475.30	107.36352	(15012509)	655476.78	4192475.30	114.35350 (15011209)
655776.78	4192475.30	122.41364	(17122917)	656076.78	4192475.30	108.71910 (17012804)
656376.78	4192475.30	98.77984	(17020801)	656676.78	4192475.30	90.01813 (13012517)
653676.78	4192775.30	64.63694	(15010907)	653976.78	4192775.30	76.81328 (15011205)
654276.78	4192775.30	87.91410	(14021223)	654576.78	4192775.30	125.76376 (16010309)
654876.78	4192775.30	120.76737	(13020205)	655176.78	4192775.30	137.98562 (14021105)
655476.78	4192775.30	148.70699	(17122820)	655776.78	4192775.30	151.74808 (17122917)
656076.78	4192775.30	138.17932	(17122920)	656376.78	4192775.30	116.53423 (17120120)
656676.78	4192775.30	91.58828	(17012908)	653676.78	4193075.30	74.92577 (17021420)
653976.78	4193075.30	89.18093	(17121504)	654276.78	4193075.30	102.53165 (17021403)
654576.78	4193075.30	125.00745	(13010906)	654876.78	4193075.30	157.72309 (16010309)
655176.78	4193075.30	192.77269	(17123007)	655476.78	4193075.30	210.86409 (17122820)
655776.78	4193075.30	213.30258	(17013024)	656076.78	4193075.30	175.85604 (17020801)

656376.78	4193075.30	133.65316	(17012908)	656676.78	4193075.30	113.92439	(17121219)
653676.78	4193375.30	78.18360	(17121823)	653976.78	4193375.30	102.72080	(17021308)
654276.78	4193375.30	121.23998	(17120203)	654576.78	4193375.30	154.52084	(17121504)
654876.78	4193375.30	202.36366	(13022803)	655176.78	4193375.30	270.29923	(13012423)
655476.78	4193375.30	318.17799	(17121903)	655776.78	4193375.30	323.56309	(17122518)
656076.78	4193375.30	234.16253	(17012908)	656376.78	4193375.30	183.50794	(17011509)
656676.78	4193375.30	110.76283	(17021208)	653676.78	4193675.30	96.13838	(15011009)
653976.78	4193675.30	115.72622	(15011009)	654276.78	4193675.30	127.32950	(17011605)
654576.78	4193675.30	174.92209	(17012823)	654876.78	4193675.30	247.89354	(17021308)
655176.78	4193675.30	367.56640	(15022519)	655476.78	4193675.30	577.98740	(13032803)
655776.78	4193675.30	490.59977	(17031624)	656076.78	4193675.30	281.11867	(17122619)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK27 ***
INCLUDING SOURCE(S): STCK27 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)
656376.78	4193675.30	174.67072 (17011303)	656676.78	4193675.30	127.67190 (14012017)
653676.78	4193975.30	83.21859 (17121203)	653976.78	4193975.30	103.90382 (17121203)
654276.78	4193975.30	134.37167 (17013107)	654576.78	4193975.30	181.86200 (17013107)
654876.78	4193975.30	264.19639 (17122903)	655176.78	4193975.30	441.02773 (17120907)
655476.78	4193975.30	1133.02300 (15010309)	655776.78	4193975.30	669.18495 (14022323)
656076.78	4193975.30	314.73019 (14021603)	656376.78	4193975.30	211.92020 (14022208)
656676.78	4193975.30	150.31135 (14022208)	653676.78	4194275.30	79.45021 (13122609)
653976.78	4194275.30	98.10509 (17122608)	654276.78	4194275.30	124.67452 (17122702)
654576.78	4194275.30	169.35069 (17120707)	654876.78	4194275.30	235.17113 (17122609)
655176.78	4194275.30	294.61788 (17010902)	655476.78	4194275.30	432.78351 (17122622)
655776.78	4194275.30	407.15430 (17011608)	656076.78	4194275.30	271.30218 (17123020)
656376.78	4194275.30	183.28740 (13020908)	656676.78	4194275.30	133.05410 (16091407)
653676.78	4194575.30	76.52957 (17011201)	653976.78	4194575.30	94.72287 (17121007)
654276.78	4194575.30	118.33474 (17122609)	654576.78	4194575.30	135.62027 (15030108)
654876.78	4194575.30	152.71991 (17010902)	655176.78	4194575.30	199.90820 (17122724)
655476.78	4194575.30	251.74552 (17020802)	655776.78	4194575.30	229.42402 (17022508)
656076.78	4194575.30	201.30806 (17012601)	656376.78	4194575.30	148.92135 (17013020)
656676.78	4194575.30	115.37209 (15012906)	653676.78	4194875.30	71.71960 (17122609)
653976.78	4194875.30	82.91256 (16010209)	654276.78	4194875.30	98.16808 (14110808)
654576.78	4194875.30	96.09497 (14012407)	654876.78	4194875.30	139.17596 (15090607)
655176.78	4194875.30	150.80229 (17120219)	655476.78	4194875.30	171.13900 (14122309)
655776.78	4194875.30	160.31493 (17120207)	656076.78	4194875.30	139.54267 (17012921)
656376.78	4194875.30	118.55775 (17122321)	656676.78	4194875.30	104.83462 (17122923)
653676.78	4195175.30	62.00485 (15030108)	653976.78	4195175.30	68.26219 (14110808)
654276.78	4195175.30	67.73817 (14012407)	654576.78	4195175.30	100.26651 (15090607)
654876.78	4195175.30	107.49787 (16022908)	655176.78	4195175.30	115.28512 (13123109)
655476.78	4195175.30	128.33540 (14122309)	655776.78	4195175.30	119.31260 (17012905)

656076.78 4195175.30 129.53580 (17022508) 656376.78 4195175.30 101.69826 (17022324)
656676.78 4195175.30 87.56528 (17122321) 653676.78 4195475.30 49.58814 (14060906)
653976.78 4195475.30 51.05165 (14012407) 654276.78 4195475.30 77.36013 (13011809)
654576.78 4195475.30 76.56492 (15090607) 654876.78 4195475.30 89.48039 (16022908)
655176.78 4195475.30 105.13781 (17012717) 655476.78 4195475.30 98.77279 (14122309)
655776.78 4195475.30 82.15813 (17123006) 656076.78 4195475.30 98.72076 (17022508)
656376.78 4195475.30 82.15710 (17012921) 656676.78 4195475.30 83.82696 (15123109)
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977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK28 ***
INCLUDING SOURCE(S): STCK28 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	109.38859 (14121216)	656126.40	4192764.99	111.61233 (14121216)
656103.65	4192731.89	110.93996 (13012517)	656093.30	4192690.51	106.55748 (13012517)
656217.44	4192771.20	104.86527 (17012908)	656279.50	4192760.85	95.75763 (17012908)
656341.57	4192727.75	86.30627 (17120121)	656366.40	4192707.06	84.34136 (17120121)
653815.06	4193437.51	124.90572 (17021308)	653776.43	4193429.79	119.79030 (17021308)
653798.32	4193413.05	122.96534 (17021308)	653708.18	4193118.16	97.43899 (17121504)
653730.07	4193102.71	96.90827 (17120517)	653753.25	4193085.97	98.74259 (17120517)
653800.90	4193053.77	98.28783 (15010907)	653882.02	4192964.92	100.39409 (15011205)
653907.78	4192962.34	100.85900 (13010908)	653945.12	4192954.62	103.60217 (17020505)
654067.45	4192886.37	106.43989 (13013108)	654108.66	4192861.90	110.66925 (16010309)
654140.85	4192841.30	125.34632 (16010309)	654376.51	4192702.22	110.61957 (15013104)
654399.69	4192673.89	112.34512 (13020205)	654024.74	4193417.88	139.07795 (17021420)
653831.84	4193501.47	120.05979 (17123023)	653915.64	4193528.15	129.99175 (17123023)
653813.62	4193608.32	121.09423 (17011605)	653676.78	4192475.30	72.81609 (13013108)
653976.78	4192475.30	95.92001 (16010309)	654276.78	4192475.30	94.53184 (13020205)
654576.78	4192475.30	104.06246 (14012608)	654876.78	4192475.30	112.88031 (17011609)
655176.78	4192475.30	136.11081 (17123009)	655476.78	4192475.30	112.76350 (17011203)
655776.78	4192475.30	111.97189 (17122318)	656076.78	4192475.30	90.11753 (17020801)
656376.78	4192475.30	88.86467 (14121216)	656676.78	4192475.30	73.25712 (14012217)
653676.78	4192775.30	80.52485 (17020505)	653976.78	4192775.30	97.89107 (13013108)
654276.78	4192775.30	109.63264 (16010309)	654576.78	4192775.30	137.52426 (14021408)
654876.78	4192775.30	145.98738 (15012509)	655176.78	4192775.30	176.62788 (17123009)
655476.78	4192775.30	153.90659 (17013024)	655776.78	4192775.30	131.49231 (17012903)
656076.78	4192775.30	114.30069 (13012517)	656376.78	4192775.30	92.66039 (14012217)
656676.78	4192775.30	81.94685 (17121219)	653676.78	4193075.30	92.29189 (17120517)
653976.78	4193075.30	110.91117 (13012121)	654276.78	4193075.30	136.18260 (13013108)
654576.78	4193075.30	166.86657 (13012423)	654876.78	4193075.30	198.54504 (14021105)
655176.78	4193075.30	242.14662 (17123009)	655476.78	4193075.30	209.60156 (17012804)
655776.78	4193075.30	171.14561 (17120120)	656076.78	4193075.30	128.58695 (15021508)
656376.78	4193075.30	108.53142 (17121219)	656676.78	4193075.30	109.64952 (17011509)
653676.78	4193375.30	111.60125 (17021308)	653976.78	4193375.30	131.82500 (17021420)

654276.78 4193375.30 167.10319 (17120517) 654576.78 4193375.30 220.66905 (14021223)
654876.78 4193375.30 290.38194 (15022608) 655176.78 4193375.30 348.05236 (17123009)
655476.78 4193375.30 299.96863 (17020801) 655776.78 4193375.30 213.56818 (15021508)
656076.78 4193375.30 192.84630 (17011509) 656376.78 4193375.30 110.00469 (17122619)
656676.78 4193375.30 87.90613 (15060806) 653676.78 4193675.30 121.12017 (15011009)
653976.78 4193675.30 142.63431 (17011605) 654276.78 4193675.30 192.92315 (17121207)
654576.78 4193675.30 284.78110 (17120203) 654876.78 4193675.30 435.84692 (16121303)
655176.78 4193675.30 636.48485 (16020518) 655476.78 4193675.30 452.37483 (17122708)
655776.78 4193675.30 251.56003 (17121906) 656076.78 4193675.30 157.65898 (17011303)
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK28 ***
INCLUDING SOURCE(S): STCK28 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)						
656376.78	4193675.30	125.62429	(14012017)	656676.78	4193675.30	91.53279 (17122519)
653676.78	4193975.30	111.48149	(17121203)	653976.78	4193975.30	147.69790 (17013107)
654276.78	4193975.30	204.97792	(17013107)	654576.78	4193975.30	306.91909 (17122903)
654876.78	4193975.30	549.53242	(17120103)	655176.78	4193975.30	1157.38102 (17020117)
655476.78	4193975.30	512.38059	(17120821)	655776.78	4193975.30	273.54120 (15020206)
656076.78	4193975.30	193.70053	(14022208)	656376.78	4193975.30	143.10590 (14022208)
656676.78	4193975.30	108.11581	(14022208)	653676.78	4194275.30	107.77507 (17122608)
653976.78	4194275.30	137.31661	(17011201)	654276.78	4194275.30	190.15030 (17121007)
654576.78	4194275.30	241.39859	(17122609)	654876.78	4194275.30	346.06766 (17020506)
655176.78	4194275.30	456.07485	(17122408)	655476.78	4194275.30	353.98054 (17122321)
655776.78	4194275.30	234.15160	(15012906)	656076.78	4194275.30	174.86344 (14011317)
656376.78	4194275.30	128.11939	(16091407)	656676.78	4194275.30	99.42978 (13032807)
653676.78	4194575.30	102.24811	(17020404)	653976.78	4194575.30	127.63458 (17122609)
654276.78	4194575.30	149.04445	(14110808)	654576.78	4194575.30	189.04990 (17122909)
654876.78	4194575.30	226.52048	(17120619)	655176.78	4194575.30	262.29001 (17122408)
655476.78	4194575.30	228.63700	(17122223)	655776.78	4194575.30	188.36651 (17122321)
656076.78	4194575.30	137.26246	(17123020)	656376.78	4194575.30	110.91385 (13121617)
656676.78	4194575.30	99.94141	(14091107)	653676.78	4194875.30	83.03303 (15030108)
653976.78	4194875.30	95.43894	(14110808)	654276.78	4194875.30	120.37125 (17122909)
654576.78	4194875.30	131.18296	(16111008)	654876.78	4194875.30	152.68711 (13040107)
655176.78	4194875.30	171.90537	(17122408)	655476.78	4194875.30	159.50638 (17121401)
655776.78	4194875.30	141.93569	(17021405)	656076.78	4194875.30	114.56613 (17122321)
656376.78	4194875.30	96.84501	(17013020)	656676.78	4194875.30	82.95870 (17121119)
653676.78	4195175.30	62.97837	(17123024)	653976.78	4195175.30	82.87988 (17122909)
654276.78	4195175.30	109.79346	(15090607)	654576.78	4195175.30	119.86336 (16022908)
654876.78	4195175.30	136.84270	(17012717)	655176.78	4195175.30	123.67433 (17122408)
655476.78	4195175.30	112.37921	(17120207)	655776.78	4195175.30	109.59624 (14021508)
656076.78	4195175.30	106.24940	(15123109)	656376.78	4195175.30	82.58595 (17120704)
656676.78	4195175.30	74.44786	(17122923)	653676.78	4195475.30	60.76439 (17122909)

653976.78 4195475.30 82.76006 (15090607) 654276.78 4195475.30 73.22322 (17121208)
654576.78 4195475.30 94.25454 (13123109) 654876.78 4195475.30 111.33791 (17012717)
655176.78 4195475.30 94.90400 (17122408) 655476.78 4195475.30 94.66630 (17012905)
655776.78 4195475.30 108.85538 (17022508) 656076.78 4195475.30 81.66296 (17021405)
656376.78 4195475.30 85.14587 (15123109) 656676.78 4195475.30 63.48514 (17120704)
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK3 ***
INCLUDING SOURCE(S): STCK3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	61.05740 (13012517)	656126.40	4192764.99	62.99911 (13012517)
656103.65	4192731.89	61.52070 (13012517)	656093.30	4192690.51	59.01433 (17120120)
656217.44	4192771.20	57.16512 (13012517)	656279.50	4192760.85	57.31414 (17012908)
656341.57	4192727.75	56.79964 (17012908)	656366.40	4192707.06	56.14035 (17012908)
653815.06	4193437.51	86.59601 (13013108)	653776.43	4193429.79	82.82955 (14021223)
653798.32	4193413.05	85.02061 (13013108)	653708.18	4193118.16	74.64635 (17020823)
653730.07	4193102.71	75.05896 (15122802)	653753.25	4193085.97	74.27028 (13012124)
653800.90	4193053.77	74.40165 (13020802)	653882.02	4192964.92	74.19343 (17020905)
653907.78	4192962.34	74.59355 (13020205)	653945.12	4192954.62	74.90161 (13020205)
654067.45	4192886.37	75.30898 (14021408)	654108.66	4192861.90	77.41029 (13011517)
654140.85	4192841.30	75.55575 (13011517)	654376.51	4192702.22	73.77101 (14120706)
654399.69	4192673.89	72.90312 (13012424)	654024.74	4193417.88	92.56320 (15122802)
653831.84	4193501.47	90.40817 (14021223)	653915.64	4193528.15	94.52695 (13013108)
653813.62	4193608.32	93.15184 (17020505)	653676.78	4192475.30	56.61063 (14010203)
653976.78	4192475.30	64.91069 (13011517)	654276.78	4192475.30	64.41089 (13122919)
654576.78	4192475.30	66.55726 (16012403)	654876.78	4192475.30	71.17439 (17012818)
655176.78	4192475.30	70.36227 (17122917)	655476.78	4192475.30	62.69461 (15011121)
655776.78	4192475.30	63.66443 (17012903)	656076.78	4192475.30	56.28209 (17011208)
656376.78	4192475.30	54.78419 (13012517)	656676.78	4192475.30	48.08150 (17122922)
653676.78	4192775.30	65.51798 (14012218)	653976.78	4192775.30	73.35668 (14021408)
654276.78	4192775.30	74.44157 (14021105)	654576.78	4192775.30	77.84641 (13021622)
654876.78	4192775.30	82.10191 (17012818)	655176.78	4192775.30	75.88552 (17011203)
655476.78	4192775.30	77.33380 (17122318)	655776.78	4192775.30	70.52384 (17020801)
656076.78	4192775.30	63.00025 (13012517)	656376.78	4192775.30	56.58488 (17122922)
656676.78	4192775.30	55.50053 (14012217)	653676.78	4193075.30	72.51229 (17020823)
653976.78	4193075.30	80.05286 (17020905)	654276.78	4193075.30	86.53814 (15011706)
654576.78	4193075.30	91.50767 (14021521)	654876.78	4193075.30	95.00520 (17012818)
655176.78	4193075.30	91.95033 (17013024)	655476.78	4193075.30	86.41925 (17012903)
655776.78	4193075.30	78.49660 (17011208)	656076.78	4193075.30	68.41808 (17012908)
656376.78	4193075.30	61.82894 (15021508)	656676.78	4193075.30	56.67533 (17121219)
653676.78	4193375.30	80.00595 (14021223)	653976.78	4193375.30	90.67228 (15122802)
654276.78	4193375.30	98.71228 (16041803)	654576.78	4193375.30	108.40422 (14043021)
654876.78	4193375.30	109.50965 (17012524)	655176.78	4193375.30	105.80278 (17011120)

655476.78 4193375.30 95.15908 (17020801) 655776.78 4193375.30 87.11591 (17012908)
656076.78 4193375.30 77.40614 (17122320) 656376.78 4193375.30 68.03592 (17121320)
656676.78 4193375.30 63.26137 (17011509) 653676.78 4193675.30 87.43214 (17021403)
653976.78 4193675.30 100.76716 (14021223) 654276.78 4193675.30 113.24382 (16121304)
654576.78 4193675.30 133.61973 (13032803) 654876.78 4193675.30 131.91109 (17012524)
655176.78 4193675.30 124.30244 (13010523) 655476.78 4193675.30 106.94129 (17031624)
655776.78 4193675.30 98.64276 (17122320) 656076.78 4193675.30 80.92786 (14022423)
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK3 ***
INCLUDING SOURCE(S): STCK3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
-------------	-------------	-----------------	-------------	-------------	-----------------

656376.78	4193675.30	65.89570 (14013105)	656676.78	4193675.30	59.99372 (17121906)
653676.78	4193975.30	92.87854 (17011204)	653976.78	4193975.30	110.37731 (17031507)
654276.78	4193975.30	146.50518 (17020902)	654576.78	4193975.30	167.09394 (17041924)
654876.78	4193975.30	182.25746 (17121920)	655176.78	4193975.30	166.52519 (17122517)
655476.78	4193975.30	126.17756 (15010718)	655776.78	4193975.30	102.08265 (17122619)
656076.78	4193975.30	84.13286 (17020824)	656376.78	4193975.30	69.82261 (14022504)
656676.78	4193975.30	58.97615 (16010723)	653676.78	4194275.30	96.27836 (17122902)
653976.78	4194275.30	119.59566 (17041004)	654276.78	4194275.30	164.88044 (17020501)
654576.78	4194275.30	284.78655 (14120809)	654876.78	4194275.30	409.06152 (14021020)
655176.78	4194275.30	195.15291 (13081801)	655476.78	4194275.30	137.55353 (15072004)
655776.78	4194275.30	109.42502 (17122519)	656076.78	4194275.30	87.06452 (17122719)
656376.78	4194275.30	71.71054 (13021520)	656676.78	4194275.30	63.78087 (17122621)
653676.78	4194575.30	95.86924 (17121322)	653976.78	4194575.30	123.44212 (17120103)
654276.78	4194575.30	165.66737 (17011123)	654576.78	4194575.30	248.15166 (15010309)
654876.78	4194575.30	366.38043 (15020317)	655176.78	4194575.30	198.85038 (14021118)
655476.78	4194575.30	144.44875 (14022323)	655776.78	4194575.30	111.89749 (14021120)
656076.78	4194575.30	92.17748 (14021603)	656376.78	4194575.30	76.97635 (13013121)
656676.78	4194575.30	64.86690 (17020901)	653676.78	4194875.30	87.49748 (17121007)
653976.78	4194875.30	107.15199 (17043004)	654276.78	4194875.30	131.51339 (15102307)
654576.78	4194875.30	163.44587 (15050720)	654876.78	4194875.30	180.89869 (13012117)
655176.78	4194875.30	159.82501 (15020318)	655476.78	4194875.30	126.07454 (13120224)
655776.78	4194875.30	103.69618 (13121319)	656076.78	4194875.30	90.63923 (14011317)
656376.78	4194875.30	75.42093 (15120117)	656676.78	4194875.30	64.42634 (14021501)
653676.78	4195175.30	80.44070 (13093002)	653976.78	4195175.30	95.75253 (17010902)
654276.78	4195175.30	110.14438 (14100520)	654576.78	4195175.30	125.02226 (17020407)
654876.78	4195175.30	129.78881 (17040505)	655176.78	4195175.30	118.85999 (14011418)
655476.78	4195175.30	105.53889 (16122921)	655776.78	4195175.30	94.42158 (17042922)
656076.78	4195175.30	79.43286 (15120204)	656376.78	4195175.30	69.36715 (15021504)
656676.78	4195175.30	63.54262 (14011317)	653676.78	4195475.30	73.59533 (17010902)
653976.78	4195475.30	83.39507 (14100520)	654276.78	4195475.30	91.70878 (15102423)
654576.78	4195475.30	103.66973 (16091820)	654876.78	4195475.30	104.53830 (17012720)

655176.78 4195475.30 98.16254 (15021702) 655476.78 4195475.30 94.24150 (17021405)
655776.78 4195475.30 83.63124 (17122321) 656076.78 4195475.30 75.96546 (17122923)
656376.78 4195475.30 63.21756 (13123020) 656676.78 4195475.30 57.27467 (13122521)
*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK4 ***
INCLUDING SOURCE(S): STCK4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)						

656165.71	4192787.75	62.65961	(17012908)	656126.40	4192764.99	66.16299	(13012517)
656103.65	4192731.89	67.10963	(13012517)	656093.30	4192690.51	65.06005	(13012517)
656217.44	4192771.20	64.18798	(17012908)	656279.50	4192760.85	63.49572	(17012908)
656341.57	4192727.75	60.97995	(17122922)	656366.40	4192707.06	60.20143	(17122922)
653815.06	4193437.51	89.02800	(15011205)	653776.43	4193429.79	86.62005	(15011205)
653798.32	4193413.05	86.61958	(15011205)	653708.18	4193118.16	76.39732	(13013108)
653730.07	4193102.71	77.80897	(13013108)	653753.25	4193085.97	76.70753	(16020321)
653800.90	4193053.77	77.30352	(16020321)	653882.02	4192964.92	76.64729	(13012124)
653907.78	4192962.34	76.17412	(13012124)	653945.12	4192954.62	77.83432	(13020802)
654067.45	4192886.37	79.54097	(13020205)	654108.66	4192861.90	77.97423	(14010203)
654140.85	4192841.30	79.19809	(14021408)	654376.51	4192702.22	78.00254	(14021105)
654399.69	4192673.89	76.54072	(14021105)	654024.74	4193417.88	96.75510	(14021223)
653831.84	4193501.47	92.88218	(14120904)	653915.64	4193528.15	96.91465	(15011205)
653813.62	4193608.32	96.01912	(17120517)	653676.78	4192475.30	60.91476	(14012218)
653976.78	4192475.30	69.38464	(14021408)	654276.78	4192475.30	67.85288	(14021105)
654576.78	4192475.30	72.51228	(16012620)	654876.78	4192475.30	72.41094	(17123009)
655176.78	4192475.30	77.01823	(17122917)	655476.78	4192475.30	69.42374	(17122701)
655776.78	4192475.30	69.06019	(17012903)	656076.78	4192475.30	62.61900	(17011208)
656376.78	4192475.30	56.62157	(13012517)	656676.78	4192475.30	49.27373	(17122922)
653676.78	4192775.30	67.41259	(15122802)	653976.78	4192775.30	73.56307	(13020205)
654276.78	4192775.30	78.73439	(17123007)	654576.78	4192775.30	82.98900	(13012424)
654876.78	4192775.30	82.49002	(14010517)	655176.78	4192775.30	88.70961	(17122917)
655476.78	4192775.30	82.23026	(17122318)	655776.78	4192775.30	77.54454	(17020801)
656076.78	4192775.30	68.40832	(13012517)	656376.78	4192775.30	58.88921	(17122922)
656676.78	4192775.30	55.40911	(17122320)	653676.78	4193075.30	75.10102	(13013108)
653976.78	4193075.30	82.36029	(13012124)	654276.78	4193075.30	90.09286	(16041803)
654576.78	4193075.30	97.07312	(13012120)	654876.78	4193075.30	97.55962	(14021321)
655176.78	4193075.30	97.44066	(15010920)	655476.78	4193075.30	93.62958	(17012903)
655776.78	4193075.30	84.73927	(17120120)	656076.78	4193075.30	71.98727	(17122922)
656376.78	4193075.30	69.04589	(17122320)	656676.78	4193075.30	60.03700	(17121320)
653676.78	4193375.30	82.85233	(14120904)	653976.78	4193375.30	93.37622	(14021223)
654276.78	4193375.30	105.28712	(14120118)	654576.78	4193375.30	115.21445	(17122918)
654876.78	4193375.30	121.59193	(13012920)	655176.78	4193375.30	116.83596	(17012920)
655476.78	4193375.30	106.52899	(14012720)	655776.78	4193375.30	93.90774	(17120121)
656076.78	4193375.30	83.67778	(17121219)	656376.78	4193375.30	74.45842	(17011509)

656676.78 4193375.30 59.24130 (17021208) 653676.78 4193675.30 90.06949 (17021420)
653976.78 4193675.30 104.12176 (15010907) 654276.78 4193675.30 121.79907 (17020104)
654576.78 4193675.30 145.81639 (17041924) 654876.78 4193675.30 155.29263 (14122217)
655176.78 4193675.30 147.42155 (14032503) 655476.78 4193675.30 130.56449 (17120117)
655776.78 4193675.30 107.48161 (17121320) 656076.78 4193675.30 85.55979 (14120805)
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*
*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK4 ***
INCLUDING SOURCE(S): STCK4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656376.78	4193675.30	74.88679 (17121906)	656676.78	4193675.30	62.85006 (15060806)
653676.78	4193975.30	93.14593 (17011605)	653976.78	4193975.30	112.94845 (17021006)
654276.78	4193975.30	145.12281 (17040104)	654576.78	4193975.30	183.37465 (15120820)
654876.78	4193975.30	253.79217 (14032718)	655176.78	4193975.30	207.16259 (14020517)
655476.78	4193975.30	144.74450 (17121819)	655776.78	4193975.30	111.48138 (14060905)
656076.78	4193975.30	90.01555 (17121319)	656376.78	4193975.30	80.27730 (14012017)
656676.78	4193975.30	64.17063 (17122519)	653676.78	4194275.30	94.27388 (17031802)
653976.78	4194275.30	117.99386 (17122119)	654276.78	4194275.30	154.01988 (17122119)
654576.78	4194275.30	243.02839 (17012309)	654876.78	4194275.30	979.94321 (14120216)
655176.78	4194275.30	245.24965 (13040507)	655476.78	4194275.30	156.89636 (14012317)
655776.78	4194275.30	118.66541 (14012317)	656076.78	4194275.30	95.77108 (15011123)
656376.78	4194275.30	79.56975 (16010203)	656676.78	4194275.30	67.14707 (16010203)
653676.78	4194575.30	90.40249 (17122608)	653976.78	4194575.30	111.59790 (17120518)
654276.78	4194575.30	144.62020 (17020721)	654576.78	4194575.30	183.37984 (15091220)
654876.78	4194575.30	206.22941 (16092802)	655176.78	4194575.30	191.04580 (15020318)
655476.78	4194575.30	145.75659 (13020120)	655776.78	4194575.30	113.88792 (14012318)
656076.78	4194575.30	95.53793 (15120117)	656376.78	4194575.30	79.67864 (13032807)
656676.78	4194575.30	66.62153 (13042024)	653676.78	4194875.30	81.80933 (17121402)
653976.78	4194875.30	95.85167 (13093002)	654276.78	4194875.30	112.34899 (14120419)
654576.78	4194875.30	135.15920 (15031920)	654876.78	4194875.30	149.00052 (15030919)
655176.78	4194875.30	143.62810 (17032421)	655476.78	4194875.30	119.80598 (17120124)
655776.78	4194875.30	104.04502 (13020618)	656076.78	4194875.30	89.73991 (13121617)
656376.78	4194875.30	75.98080 (14120704)	656676.78	4194875.30	67.30040 (14011317)
653676.78	4195175.30	74.17342 (17120208)	653976.78	4195175.30	82.63678 (14012407)
654276.78	4195175.30	96.26000 (14102903)	654576.78	4195175.30	108.77181 (15092505)
654876.78	4195175.30	111.38139 (14110924)	655176.78	4195175.30	109.42681 (14120807)
655476.78	4195175.30	103.19000 (17021405)	655776.78	4195175.30	91.13117 (17122321)
656076.78	4195175.30	81.45014 (17013020)	656376.78	4195175.30	69.79450 (17121119)
656676.78	4195175.30	62.23332 (13121617)	653676.78	4195475.30	63.70713 (13112423)
653976.78	4195475.30	75.44810 (14100520)	654276.78	4195475.30	81.39492 (17022607)
654576.78	4195475.30	89.34778 (17031001)	654876.78	4195475.30	91.57903 (17120206)
655176.78	4195475.30	91.71672 (17012905)	655476.78	4195475.30	88.12140 (17122223)
655776.78	4195475.30	81.19394 (17022706)	656076.78	4195475.30	71.99700 (13121517)

656376.78 4195475.30 65.81484 (17122923) 656676.78 4195475.30 55.44960 (13123020)
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK5 ***
INCLUDING SOURCE(S): STCK5 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656165.71	4192787.75	63.91363	(17020801)	656126.40	4192764.99	68.24602 (17020801)
656103.65	4192731.89	67.12166	(17020801)	656093.30	4192690.51	63.21731 (17020801)
656217.44	4192771.20	65.20952	(17011208)	656279.50	4192760.85	66.01039 (17011208)
656341.57	4192727.75	63.13383	(17011208)	656366.40	4192707.06	61.70304 (17011208)
653815.06	4193437.51	75.53166	(17020505)	653776.43	4193429.79	73.00887 (15011205)
653798.32	4193413.05	74.62026	(17020505)	653708.18	4193118.16	65.37516 (13013108)
653730.07	4193102.71	67.12593	(13013108)	653753.25	4193085.97	67.04337 (13013108)
653800.90	4193053.77	67.57301	(17121108)	653882.02	4192964.92	66.77816 (15122802)
653907.78	4192962.34	67.18534	(15122802)	653945.12	4192954.62	67.23149 (13012124)
654067.45	4192886.37	68.93129	(14012218)	654108.66	4192861.90	68.45736 (17020905)
654140.85	4192841.30	68.88232	(13020205)	654376.51	4192702.22	69.69193 (13011517)
654399.69	4192673.89	67.73511	(15011706)	654024.74	4193417.88	80.95599 (14021223)
653831.84	4193501.47	78.62005	(15011205)	653915.64	4193528.15	81.24529 (17020505)
653813.62	4193608.32	79.79636	(15010907)	653676.78	4192475.30	52.57354 (13020802)
653976.78	4192475.30	56.35319	(14010203)	654276.78	4192475.30	63.34712 (13011517)
654576.78	4192475.30	63.37218	(14120706)	654876.78	4192475.30	65.36731 (16012403)
655176.78	4192475.30	70.00860	(17012818)	655476.78	4192475.30	70.01905 (17122917)
655776.78	4192475.30	61.74959	(15011121)	656076.78	4192475.30	62.34590 (17012903)
656376.78	4192475.30	53.64576	(17011208)	656676.78	4192475.30	54.78514 (13012517)
653676.78	4192775.30	58.14163	(16122805)	653976.78	4192775.30	64.61436 (14012218)
654276.78	4192775.30	72.04833	(14021408)	654576.78	4192775.30	73.00214 (14021105)
654876.78	4192775.30	76.53055	(13021622)	655176.78	4192775.30	80.95008 (17012818)
655476.78	4192775.30	76.28385	(17011203)	655776.78	4192775.30	74.93115 (17122318)
656076.78	4192775.30	68.61797	(17020801)	656376.78	4192775.30	60.69470 (13012517)
656676.78	4192775.30	56.55870	(17012908)	653676.78	4193075.30	64.54605 (13013108)
653976.78	4193075.30	71.84975	(15122802)	654276.78	4193075.30	78.70658 (13020205)
654576.78	4193075.30	85.49414	(15011706)	654876.78	4193075.30	89.73884 (14021521)
655176.78	4193075.30	93.96523	(17012818)	655476.78	4193075.30	90.70822 (17013024)
655776.78	4193075.30	83.65572	(17012903)	656076.78	4193075.30	77.94794 (17011208)
656376.78	4193075.30	68.37754	(17012908)	656676.78	4193075.30	62.74433 (15021508)
653676.78	4193375.30	70.38444	(15011205)	653976.78	4193375.30	78.37505 (14021223)
654276.78	4193375.30	86.94647	(13012124)	654576.78	4193375.30	97.40097 (16041803)
654876.78	4193375.30	105.88126	(14043021)	655176.78	4193375.30	107.91652 (17012818)
655476.78	4193375.30	101.29297	(17011120)	655776.78	4193375.30	98.58188 (17020801)
656076.78	4193375.30	84.92536	(17012908)	656376.78	4193375.30	75.75154 (17031307)
656676.78	4193375.30	67.01586	(17121219)	653676.78	4193675.30	75.81500 (17121504)
653976.78	4193675.30	87.62104	(17021403)	654276.78	4193675.30	98.83771 (14021223)

654576.78 4193675.30 115.85268 (14120118) 654876.78 4193675.30 124.60043 (13032803)
655176.78 4193675.30 127.94488 (17012524) 655476.78 4193675.30 121.07703 (16040921)
655776.78 4193675.30 107.23018 (17031624) 656076.78 4193675.30 98.24631 (17122320)
*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56
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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*
*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK5 ***
INCLUDING SOURCE(S): STCK5 ,
*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **
X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)

656376.78 4193675.30 82.11856 (14022423) 656676.78 4193675.30 66.94291 (17021208)
653676.78 4193975.30 78.99975 (17123023) 653976.78 4193975.30 94.85801 (17011204)
654276.78 4193975.30 109.97078 (17031507) 654576.78 4193975.30 131.14767 (15120820)
654876.78 4193975.30 162.13326 (14032001) 655176.78 4193975.30 174.47414 (17121920)
655476.78 4193975.30 158.11200 (17041904) 655776.78 4193975.30 131.83650 (17031320)
656076.78 4193975.30 100.56463 (14120805) 656376.78 4193975.30 84.63407 (17121906)
656676.78 4193975.30 69.75298 (15021623) 653676.78 4194275.30 81.67604 (17121807)
653976.78 4194275.30 98.44553 (17022506) 654276.78 4194275.30 121.12342 (17012803)
654576.78 4194275.30 157.60597 (17031301) 654876.78 4194275.30 242.02175 (13122309)
655176.78 4194275.30 348.37057 (17021318) 655476.78 4194275.30 202.36371 (14010409)
655776.78 4194275.30 140.51957 (17112222) 656076.78 4194275.30 109.62180 (17042121)
656376.78 4194275.30 90.13887 (17122519) 656676.78 4194275.30 71.68781 (17122719)
653676.78 4194575.30 83.71603 (17011121) 653976.78 4194575.30 99.21652 (17011121)
654276.78 4194575.30 124.62096 (17021502) 654576.78 4194575.30 161.08309 (17013004)
654876.78 4194575.30 263.18901 (13020309) 655176.78 4194575.30 450.89241 (17012101)
655476.78 4194575.30 222.79623 (16012717) 655776.78 4194575.30 146.14062 (14120819)
656076.78 4194575.30 112.19806 (14021603) 656376.78 4194575.30 91.43007 (13013121)
656676.78 4194575.30 77.57729 (17020901) 653676.78 4194875.30 76.82381 (17122702)
653976.78 4194875.30 91.90538 (17120707) 654276.78 4194875.30 114.90539 (17122524)
654576.78 4194875.30 133.21743 (14122717) 654876.78 4194875.30 171.49604 (13081824)
655176.78 4194875.30 190.01131 (13012117) 655476.78 4194875.30 168.96815 (15020318)
655776.78 4194875.30 132.13487 (17122322) 656076.78 4194875.30 103.80661 (14120704)
656376.78 4194875.30 89.15301 (15010921) 656676.78 4194875.30 76.32914 (15120117)
653676.78 4195175.30 76.41928 (17121402) 653976.78 4195175.30 80.71327 (16102124)
654276.78 4195175.30 95.27611 (13090706) 654576.78 4195175.30 115.88925 (14100520)
654876.78 4195175.30 131.69302 (17020407) 655176.78 4195175.30 133.96474 (14011619)
655476.78 4195175.30 121.61872 (14092520) 655776.78 4195175.30 110.01523 (17122321)
656076.78 4195175.30 95.74574 (17013020) 656376.78 4195175.30 81.87646 (13122521)
656676.78 4195175.30 69.23411 (13121319) 653676.78 4195475.30 65.07642 (14110808)
653976.78 4195475.30 74.70763 (17010902) 654276.78 4195475.30 84.46482 (14030919)
654576.78 4195475.30 95.00173 (13062501) 654876.78 4195475.30 104.43277 (16091820)
655176.78 4195475.30 106.63247 (17012720) 655476.78 4195475.30 100.30262 (15021702)
655776.78 4195475.30 94.90947 (17021405) 656076.78 4195475.30 84.99283 (17122321)
656376.78 4195475.30 75.94076 (17042922) 656676.78 4195475.30 65.08647 (17121119)
*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK6 ***
INCLUDING SOURCE(S): STCK6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	73.26841 (17020801)	656126.40	4192764.99	76.08206 (17020801)
656103.65	4192731.89	72.40594 (17020801)	656093.30	4192690.51	70.74226 (17012903)
656217.44	4192771.20	71.27701 (17011208)	656279.50	4192760.85	72.92758 (17011208)
656341.57	4192727.75	69.68635 (17011208)	656366.40	4192707.06	67.99957 (17011208)
653815.06	4193437.51	76.13672 (17120517)	653776.43	4193429.79	74.00341 (17120517)
653798.32	4193413.05	74.24737 (17120517)	653708.18	4193118.16	66.57609 (15011205)
653730.07	4193102.71	67.59413 (17020505)	653753.25	4193085.97	68.01452 (17020505)
653800.90	4193053.77	67.56563 (15011202)	653882.02	4192964.92	68.57720 (13013108)
653907.78	4192962.34	69.29161 (13013108)	653945.12	4192954.62	68.97252 (17121108)
654067.45	4192886.37	70.26525 (15122802)	654108.66	4192861.90	70.35473 (13012124)
654140.85	4192841.30	69.53712 (13020802)	654376.51	4192702.22	72.89160 (14021408)
654399.69	4192673.89	74.34482 (14021408)	654024.74	4193417.88	83.27546 (14120904)
653831.84	4193501.47	78.19585 (17121504)	653915.64	4193528.15	81.68311 (17120517)
653813.62	4193608.32	80.82701 (17021420)	653676.78	4192475.30	53.74950 (15020303)
653976.78	4192475.30	59.43900 (14012218)	654276.78	4192475.30	67.85195 (14021408)
654576.78	4192475.30	66.07627 (15011706)	654876.78	4192475.30	70.75121 (15011707)
655176.78	4192475.30	70.76868 (14021321)	655476.78	4192475.30	74.48760 (17120822)
655776.78	4192475.30	71.93131 (17122701)	656076.78	4192475.30	66.18588 (17122920)
656376.78	4192475.30	58.36311 (17121708)	656676.78	4192475.30	58.87052 (13012517)
653676.78	4192775.30	59.98269 (13013108)	653976.78	4192775.30	65.56318 (15122802)
654276.78	4192775.30	71.93677 (17020905)	654576.78	4192775.30	78.98101 (13011517)
654876.78	4192775.30	82.51825 (13012424)	655176.78	4192775.30	85.06228 (14021321)
655476.78	4192775.30	88.20971 (17122917)	655776.78	4192775.30	80.22590 (17122319)
656076.78	4192775.30	73.80187 (17020801)	656376.78	4192775.30	66.33959 (13012517)
656676.78	4192775.30	61.76066 (17122922)	653676.78	4193075.30	65.08839 (17020505)
653976.78	4193075.30	72.78420 (13013108)	654276.78	4193075.30	80.60113 (15122802)
654576.78	4193075.30	87.49239 (14122320)	654876.78	4193075.30	95.37868 (13122919)
655176.78	4193075.30	101.75095 (14021321)	655476.78	4193075.30	100.27057 (17122917)
655776.78	4193075.30	96.51440 (17122920)	656076.78	4193075.30	86.43932 (17011208)
656376.78	4193075.30	74.61883 (17012908)	656676.78	4193075.30	67.09037 (17031307)
653676.78	4193375.30	70.36068 (17120517)	653976.78	4193375.30	80.79485 (14120904)
654276.78	4193375.30	90.48772 (14021223)	654576.78	4193375.30	101.60630 (16042306)
654876.78	4193375.30	112.25955 (16122217)	655176.78	4193375.30	119.25202 (17122707)
655476.78	4193375.30	114.85730 (17122221)	655776.78	4193375.30	111.06259 (17020801)
656076.78	4193375.30	96.41108 (17012908)	656376.78	4193375.30	87.42289 (17122320)
656676.78	4193375.30	72.07404 (14022423)	653676.78	4193675.30	76.57520 (17021308)
653976.78	4193675.30	88.08408 (17021420)	654276.78	4193675.30	97.71819 (15010907)
654576.78	4193675.30	117.85918 (17020104)	654876.78	4193675.30	134.31159 (14032102)
655176.78	4193675.30	142.94377 (16030901)	655476.78	4193675.30	145.69775 (16041107)

655776.78 4193675.30 129.72710 (17031624) 656076.78 4193675.30 109.25535 (17123017)
*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** *** 12:37:56

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK6 ***
INCLUDING SOURCE(S): STCK6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
-------------	-------------	------	------------	-------------	-------------	------

656376.78	4193675.30	86.70158	(17011722)	656676.78	4193675.30	74.73620 (17121906)
653676.78	4193975.30	78.24191	(17011205)	653976.78	4193975.30	89.49985 (17012823)
654276.78	4193975.30	109.86470	(17021006)	654576.78	4193975.30	131.72008 (17040104)
654876.78	4193975.30	176.40931	(17020902)	655176.78	4193975.30	227.91835 (13090907)
655476.78	4193975.30	199.28178	(15021218)	655776.78	4193975.30	157.63149 (17121518)
656076.78	4193975.30	116.39694	(17020824)	656376.78	4193975.30	91.69521 (14022504)
656676.78	4193975.30	80.44281	(14012017)	653676.78	4194275.30	78.84261 (17031802)
653976.78	4194275.30	94.31842	(17031802)	654276.78	4194275.30	111.03898 (17031802)
654576.78	4194275.30	142.62879	(17120902)	654876.78	4194275.30	218.67776 (16122909)
655176.78	4194275.30	629.84881	(15103023)	655476.78	4194275.30	267.08297 (17021004)
655776.78	4194275.30	162.86606	(17013023)	656076.78	4194275.30	117.72165 (15021422)
656376.78	4194275.30	95.83529	(16010203)	656676.78	4194275.30	79.77666 (16010203)
653676.78	4194575.30	73.26220	(17013021)	653976.78	4194575.30	88.30191 (17122608)
654276.78	4194575.30	108.43712	(17120104)	654576.78	4194575.30	140.72010 (17122118)
654876.78	4194575.30	172.19779	(15012017)	655176.78	4194575.30	218.73519 (15103117)
655476.78	4194575.30	200.99565	(16092007)	655776.78	4194575.30	154.06045 (15031322)
656076.78	4194575.30	117.89383	(14012318)	656376.78	4194575.30	96.71864 (15120117)
656676.78	4194575.30	81.81801	(13120917)	653676.78	4194875.30	70.99112 (17120706)
653976.78	4194875.30	87.03887	(17020404)	654276.78	4194875.30	93.62894 (13041901)
654576.78	4194875.30	113.60965	(13090706)	654876.78	4194875.30	132.60019 (15011808)
655176.78	4194875.30	153.53956	(15100423)	655476.78	4194875.30	144.65370 (16021204)
655776.78	4194875.30	124.60019	(15022703)	656076.78	4194875.30	107.44120 (13020618)
656376.78	4194875.30	92.41938	(13121617)	656676.78	4194875.30	78.40762 (13031018)
653676.78	4195175.30	64.81605	(17043004)	653976.78	4195175.30	73.20852 (13081903)
654276.78	4195175.30	85.79212	(17010902)	654576.78	4195175.30	99.36860 (14100520)
654876.78	4195175.30	111.36745	(17120219)	655176.78	4195175.30	116.29598 (15092124)
655476.78	4195175.30	114.30702	(17122822)	655776.78	4195175.30	104.30215 (15021907)
656076.78	4195175.30	94.87562	(17122321)	656376.78	4195175.30	83.19434 (17013020)
656676.78	4195175.30	71.49674	(17121119)	653676.78	4195475.30	60.90992 (14110808)
653976.78	4195475.30	65.62072	(17010902)	654276.78	4195475.30	73.81804 (16022108)
654576.78	4195475.30	82.28294	(17121208)	654876.78	4195475.30	90.52901 (13040107)
655176.78	4195475.30	92.93043	(17042122)	655476.78	4195475.30	93.74643 (17012905)
655776.78	4195475.30	87.10339	(17122223)	656076.78	4195475.30	83.55296 (17022324)
656376.78	4195475.30	73.13540	(13121517)	656676.78	4195475.30	67.59832 (17122923)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** ***

*** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK7 ***

INCLUDING SOURCE(S): STCK7 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
-------------	-------------	------	------------	-------------	-------------	------	------------

656165.71	4192787.75	71.01694	(17122318)	656126.40	4192764.99	67.36883	(17012804)
656103.65	4192731.89	66.08574	(17122319)	656093.30	4192690.51	64.50701	(15011121)
656217.44	4192771.20	71.05076	(17122318)	656279.50	4192760.85	67.79227	(17122920)
656341.57	4192727.75	66.04249	(17012903)	656366.40	4192707.06	65.90188	(17012903)
653815.06	4193437.51	64.57152	(15032607)	653776.43	4193429.79	62.29591	(15032607)
653798.32	4193413.05	63.97127	(15032607)	653708.18	4193118.16	56.89097	(15011202)
653730.07	4193102.71	56.09509	(15011202)	653753.25	4193085.97	54.79536	(13010906)
653800.90	4193053.77	56.75094	(16012402)	653882.02	4192964.92	57.25417	(17121108)
653907.78	4192962.34	58.33000	(17121108)	653945.12	4192954.62	58.53750	(17121108)
654067.45	4192886.37	59.03888	(15122802)	654108.66	4192861.90	58.80268	(13012124)
654140.85	4192841.30	58.58983	(13020802)	654376.51	4192702.22	59.30704	(14010203)
654399.69	4192673.89	62.06474	(14021408)	654024.74	4193417.88	68.78832	(17020505)
653831.84	4193501.47	65.26391	(17021403)	653915.64	4193528.15	68.13562	(15032607)
653813.62	4193608.32	66.76115	(17120517)	653676.78	4192475.30	45.99417	(16122805)
653976.78	4192475.30	50.54869	(14012218)	654276.78	4192475.30	56.34654	(14021408)
654576.78	4192475.30	59.03040	(13011517)	654876.78	4192475.30	59.54061	(14120706)
655176.78	4192475.30	63.13480	(17011609)	655476.78	4192475.30	67.29380	(17123009)
655776.78	4192475.30	65.95163	(17122917)	656076.78	4192475.30	62.50057	(17122701)
656376.78	4192475.30	60.26584	(17122920)	656676.78	4192475.30	55.66465	(17020801)
653676.78	4192775.30	50.23425	(13013108)	653976.78	4192775.30	55.52624	(15122802)
654276.78	4192775.30	59.16355	(15013104)	654576.78	4192775.30	66.58782	(14021408)
654876.78	4192775.30	68.02639	(14021105)	655176.78	4192775.30	71.24649	(13021622)
655476.78	4192775.30	74.74627	(17123009)	655776.78	4192775.30	75.78862	(17122917)
656076.78	4192775.30	67.00660	(17122319)	656376.78	4192775.30	67.39507	(17012903)
656676.78	4192775.30	62.79873	(17011208)	653676.78	4193075.30	55.27759	(15011202)
653976.78	4193075.30	60.51694	(13013108)	654276.78	4193075.30	66.28410	(13012124)
654576.78	4193075.30	72.11395	(13020205)	654876.78	4193075.30	79.78832	(15011706)
655176.78	4193075.30	83.21275	(14021521)	655476.78	4193075.30	86.43022	(17012818)
655776.78	4193075.30	82.70954	(17011203)	656076.78	4193075.30	81.26909	(17122318)
656376.78	4193075.30	72.64903	(17020801)	656676.78	4193075.30	66.71413	(13012517)
653676.78	4193375.30	59.26329	(15032607)	653976.78	4193375.30	66.87110	(15011202)
654276.78	4193375.30	73.37500	(13013108)	654576.78	4193375.30	81.76687	(13020802)
654876.78	4193375.30	88.30193	(16041803)	655176.78	4193375.30	96.62840	(13012424)
655476.78	4193375.30	97.79911	(17012818)	655776.78	4193375.30	99.04749	(17013024)
656076.78	4193375.30	91.95217	(17012903)	656376.78	4193375.30	78.22399	(17120120)
656676.78	4193375.30	68.60850	(14011904)	653676.78	4193675.30	61.74365	(17013106)
653976.78	4193675.30	72.70813	(15021923)	654276.78	4193675.30	80.22674	(15011205)
654576.78	4193675.30	93.03778	(17122821)	654876.78	4193675.30	100.10263	(14021122)
655176.78	4193675.30	108.91863	(16021008)	655476.78	4193675.30	117.06271	(17021904)
655776.78	4193675.30	115.98342	(17011120)	656076.78	4193675.30	105.86865	(17011208)

*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK7 ***
INCLUDING SOURCE(S): STCK7 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656376.78	4193675.30	88.74893 (17120121)	656676.78	4193675.30	82.96927 (17121219)
653676.78	4193975.30	66.61527 (17021308)	653976.78	4193975.30	78.94158 (17011204)
654276.78	4193975.30	88.45229 (17013106)	654576.78	4193975.30	100.06013 (15022519)
654876.78	4193975.30	121.29516 (17011206)	655176.78	4193975.30	145.36250 (14120120)
655476.78	4193975.30	161.34360 (16020518)	655776.78	4193975.30	146.99456 (17041102)
656076.78	4193975.30	122.33513 (17120117)	656376.78	4193975.30	104.10057 (17121320)
656676.78	4193975.30	82.68740 (14120805)	653676.78	4194275.30	70.46956 (17011205)
653976.78	4194275.30	81.03817 (17011605)	654276.78	4194275.30	93.99321 (17012823)
654576.78	4194275.30	114.63599 (17122522)	654876.78	4194275.30	148.35605 (17021408)
655176.78	4194275.30	197.91774 (14010609)	655476.78	4194275.30	235.70257 (17090907)
655776.78	4194275.30	190.53860 (17120117)	656076.78	4194275.30	136.48786 (15120701)
656376.78	4194275.30	107.97822 (14120721)	656676.78	4194275.30	87.47576 (16010723)
653676.78	4194575.30	69.83249 (17011505)	653976.78	4194575.30	81.89054 (17031802)
654276.78	4194575.30	97.19062 (17031802)	654576.78	4194575.30	116.33156 (17120902)
654876.78	4194575.30	155.30050 (17012309)	655176.78	4194575.30	257.80232 (17012309)
655476.78	4194575.30	9.22862 (15112110)	655776.78	4194575.30	216.51032 (15090821)
656076.78	4194575.30	147.50225 (17013023)	656376.78	4194575.30	111.24005 (16010203)
656676.78	4194575.30	92.00520 (16010203)	653676.78	4194875.30	65.58515 (17031703)
653976.78	4194875.30	75.63879 (17013021)	654276.78	4194875.30	91.97771 (17122608)
654576.78	4194875.30	115.93770 (17120518)	654876.78	4194875.30	149.22815 (17020721)
655176.78	4194875.30	182.18140 (16022308)	655476.78	4194875.30	212.51902 (14032807)
655776.78	4194875.30	182.13460 (14021523)	656076.78	4194875.30	142.45830 (16021207)
656376.78	4194875.30	111.77504 (13030120)	656676.78	4194875.30	93.00570 (14021501)
653676.78	4195175.30	68.27341 (17011201)	653976.78	4195175.30	76.92364 (17121007)
654276.78	4195175.30	87.11247 (17121402)	654576.78	4195175.30	100.04196 (13081903)
654876.78	4195175.30	115.47021 (17122117)	655176.78	4195175.30	140.31540 (17021423)
655476.78	4195175.30	146.84585 (13112022)	655776.78	4195175.30	140.16282 (17031007)
656076.78	4195175.30	120.27246 (17022603)	656376.78	4195175.30	100.71291 (17121119)
656676.78	4195175.30	86.06459 (13121617)	653676.78	4195475.30	63.49129 (17121402)
653976.78	4195475.30	65.06065 (14040607)	654276.78	4195475.30	75.37923 (17120208)
654576.78	4195475.30	85.13071 (13112423)	654876.78	4195475.30	98.91016 (16120419)
655176.78	4195475.30	111.07665 (13060805)	655476.78	4195475.30	113.12860 (17122408)
655776.78	4195475.30	109.38145 (13021421)	656076.78	4195475.30	101.82787 (17022324)
656376.78	4195475.30	90.04805 (13121517)	656676.78	4195475.30	79.76321 (17013020)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK8 ***

INCLUDING SOURCE(S): STCK8 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)						

656165.71	4192787.75	81.25645	(17122318)	656126.40	4192764.99	77.53898 (17012804)
656103.65	4192731.89	76.26259	(17122319)	656093.30	4192690.51	74.79468 (15011121)
656217.44	4192771.20	80.90268	(17122318)	656279.50	4192760.85	76.23661 (17122920)
656341.57	4192727.75	76.68245	(17012903)	656366.40	4192707.06	75.60300 (17012903)
653815.06	4193437.51	63.91054	(17013106)	653776.43	4193429.79	62.16359 (17013106)
653798.32	4193413.05	62.71144	(17013106)	653708.18	4193118.16	58.10866 (15010907)
653730.07	4193102.71	58.59745	(17021403)	653753.25	4193085.97	59.29128 (15032607)
653800.90	4193053.77	62.24970	(15032607)	653882.02	4192964.92	60.59776 (17020505)
653907.78	4192962.34	61.09273	(15011202)	653945.12	4192954.62	61.76880 (15011202)
654067.45	4192886.37	61.64280	(13013108)	654108.66	4192861.90	63.32108 (13013108)
654140.85	4192841.30	62.91726	(17121108)	654376.51	4192702.22	64.38550 (13020802)
654399.69	4192673.89	64.19903	(14010204)	654024.74	4193417.88	70.94299 (17120517)
653831.84	4193501.47	68.61923	(17021420)	653915.64	4193528.15	71.26241 (17021420)
653813.62	4193608.32	69.21689	(17021308)	653676.78	4192475.30	49.23255 (13013108)
653976.78	4192475.30	53.15274	(15020303)	654276.78	4192475.30	58.44987 (14012218)
654576.78	4192475.30	66.59690	(14021408)	654876.78	4192475.30	66.28291 (15011706)
655176.78	4192475.30	69.32008	(15011707)	655476.78	4192475.30	71.70027 (14021321)
655776.78	4192475.30	72.50188	(17120822)	656076.78	4192475.30	70.34779 (17122701)
656376.78	4192475.30	68.46703	(17122920)	656676.78	4192475.30	61.82350 (17020801)
653676.78	4192775.30	53.50637	(15011202)	653976.78	4192775.30	58.99766 (13013108)
654276.78	4192775.30	63.99565	(15122802)	654576.78	4192775.30	70.05920 (17020905)
654876.78	4192775.30	77.83643	(13011517)	655176.78	4192775.30	81.11394 (14120706)
655476.78	4192775.30	84.32471	(14021321)	655776.78	4192775.30	83.30330 (17120822)
656076.78	4192775.30	77.86470	(15011121)	656376.78	4192775.30	74.15006 (17012903)
656676.78	4192775.30	68.62149	(17120120)	653676.78	4193075.30	56.90428 (17021403)
653976.78	4193075.30	63.77445	(17020505)	654276.78	4193075.30	70.47368 (13013108)
654576.78	4193075.30	78.99444	(15122802)	654876.78	4193075.30	85.80863 (14010203)
655176.78	4193075.30	93.54005	(14021105)	655476.78	4193075.30	98.12705 (14021321)
655776.78	4193075.30	100.51730	(17122917)	656076.78	4193075.30	92.77382 (17122620)
656376.78	4193075.30	83.83990	(17011208)	656676.78	4193075.30	76.78008 (17012908)
653676.78	4193375.30	59.52681	(17013106)	653976.78	4193375.30	69.32494 (17120517)
654276.78	4193375.30	78.24619	(14120904)	654576.78	4193375.30	88.66082 (14021223)
654876.78	4193375.30	99.71693	(14032824)	655176.78	4193375.30	107.90487 (16122217)
655476.78	4193375.30	114.30751	(17011207)	655776.78	4193375.30	116.08022 (17120606)
656076.78	4193375.30	104.84397	(13042824)	656376.78	4193375.30	93.73148 (17012908)
656676.78	4193375.30	85.41890	(17122320)	653676.78	4193675.30	62.45817 (17021308)
653976.78	4193675.30	75.33185	(17021308)	654276.78	4193675.30	82.30047 (17021420)
654576.78	4193675.30	98.13798	(15010907)	654876.78	4193675.30	109.24457 (17020104)
655176.78	4193675.30	129.00033	(14032102)	655476.78	4193675.30	145.22506 (15042102)
655776.78	4193675.30	150.20943	(17040502)	656076.78	4193675.30	132.24528 (17122517)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

*** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK8 ***
INCLUDING SOURCE(S): STCK8 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
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656376.78	4193675.30	108.63977 (17122320)	656676.78	4193675.30	87.42387 (15041904)
653676.78	4193975.30	67.27329 (17011205)	653976.78	4193975.30	76.74630 (17011605)
654276.78	4193975.30	88.76917 (17012823)	654576.78	4193975.30	103.12348 (17122522)
654876.78	4193975.30	125.13661 (17021408)	655176.78	4193975.30	170.26566 (17020902)
655476.78	4193975.30	213.64009 (13090907)	655776.78	4193975.30	199.53271 (17021319)
656076.78	4193975.30	155.82387 (17013121)	656376.78	4193975.30	114.55084 (15030721)
656676.78	4193975.30	94.45764 (15021623)	653676.78	4194275.30	66.01686 (17011505)
653976.78	4194275.30	77.12108 (17031802)	654276.78	4194275.30	90.48288 (17031802)
654576.78	4194275.30	108.86329 (17123022)	654876.78	4194275.30	134.55682 (13040606)
655176.78	4194275.30	216.09755 (14122109)	655476.78	4194275.30	512.29854 (14020602)
655776.78	4194275.30	300.39811 (17122417)	656076.78	4194275.30	172.31196 (17091119)
656376.78	4194275.30	123.21633 (17091205)	656676.78	4194275.30	96.55256 (15032524)
653676.78	4194575.30	64.68746 (17121322)	653976.78	4194575.30	74.95493 (17031703)
654276.78	4194575.30	84.75739 (13013118)	654576.78	4194575.30	107.21162 (17122523)
654876.78	4194575.30	135.60715 (17121121)	655176.78	4194575.30	175.20260 (13091907)
655476.78	4194575.30	267.08587 (14120909)	655776.78	4194575.30	217.05630 (17102317)
656076.78	4194575.30	160.24481 (15031322)	656376.78	4194575.30	120.67747 (15021222)
656676.78	4194575.30	99.33576 (14021501)	653676.78	4194875.30	61.74830 (17011201)
653976.78	4194875.30	71.42910 (17120707)	654276.78	4194875.30	87.78413 (17020404)
654576.78	4194875.30	95.72483 (17043004)	654876.78	4194875.30	108.71868 (14100603)
655176.78	4194875.30	137.17485 (16091821)	655476.78	4194875.30	149.56874 (13122120)
655776.78	4194875.30	145.13613 (15021305)	656076.78	4194875.30	128.68977 (15022703)
656376.78	4194875.30	109.71655 (13020618)	656676.78	4194875.30	94.05378 (13121617)
653676.78	4195175.30	62.50254 (17020404)	653976.78	4195175.30	66.02749 (17122402)
654276.78	4195175.30	71.50998 (13081903)	654576.78	4195175.30	84.69506 (17010902)
654876.78	4195175.30	98.95404 (14100520)	655176.78	4195175.30	107.86223 (17120619)
655476.78	4195175.30	117.22545 (17020802)	655776.78	4195175.30	115.58701 (17013124)
656076.78	4195175.30	105.73797 (15021907)	656376.78	4195175.30	96.57747 (17122321)
656676.78	4195175.30	84.67425 (17013020)	653676.78	4195475.30	54.51100 (16010209)
653976.78	4195475.30	61.98157 (14110808)	654276.78	4195475.30	66.54641 (17010902)
654576.78	4195475.30	74.90361 (17122909)	654876.78	4195475.30	81.49353 (17122724)
655176.78	4195475.30	90.42114 (13060805)	655476.78	4195475.30	96.01641 (17120618)
655776.78	4195475.30	93.10672 (13122118)	656076.78	4195475.30	87.16096 (17041006)
656376.78	4195475.30	85.02206 (17022324)	656676.78	4195475.30	74.08472 (14011519)

*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
*** AERMET - VERSION 18081 *** ***

*** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
STCK9 ***

INCLUDING SOURCE(S): STCK9 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
---------------------------	-------------	--------------------	-------------	-------------	------

656165.71	4192787.75	88.23605 (17120822)	656126.40	4192764.99	83.49452 (17120822)
656103.65	4192731.89	83.96908 (15011008)	656093.30	4192690.51	82.43459 (15011008)
656217.44	4192771.20	91.93310 (17122917)	656279.50	4192760.85	85.61475 (17011203)
656341.57	4192727.75	87.07683 (17013024)	656366.40	4192707.06	86.54040 (17013024)
653815.06	4193437.51	55.22131 (17021308)	653776.43	4193429.79	53.39369 (17021308)
653798.32	4193413.05	56.43735 (17021308)	653708.18	4193118.16	52.93311 (17013022)
653730.07	4193102.71	52.65176 (17013022)	653753.25	4193085.97	51.63034 (17013022)
653800.90	4193053.77	51.26251 (17013106)	653882.02	4192964.92	52.38915 (17120517)
653907.78	4192962.34	53.41934 (17120517)	653945.12	4192954.62	54.23816 (15021923)
654067.45	4192886.37	55.48639 (17021403)	654108.66	4192861.90	58.11699 (15032607)
654140.85	4192841.30	58.91506 (15032607)	654376.51	4192702.22	58.28951 (16012402)
654399.69	4192673.89	57.77789 (16012402)	654024.74	4193417.88	64.94271 (17021308)
653831.84	4193501.47	56.57133 (17121823)	653915.64	4193528.15	59.08962 (17121823)
653813.62	4193608.32	57.98042 (17013006)	653676.78	4192475.30	46.51993 (15032607)
653976.78	4192475.30	49.04793 (15011202)	654276.78	4192475.30	54.20500 (13013108)
654576.78	4192475.30	58.57474 (15122802)	654876.78	4192475.30	63.02543 (14012218)
655176.78	4192475.30	70.11558 (13011517)	655476.78	4192475.30	72.98954 (13122919)
655776.78	4192475.30	74.63773 (16021202)	656076.78	4192475.30	74.99634 (17012818)
656376.78	4192475.30	75.35690 (17013024)	656676.78	4192475.30	76.35264 (17122318)
653676.78	4192775.30	47.86935 (15021923)	653976.78	4192775.30	54.78028 (15032607)
654276.78	4192775.30	58.66404 (15011202)	654576.78	4192775.30	65.01286 (13013108)
654876.78	4192775.30	70.69541 (13012124)	655176.78	4192775.30	76.21016 (13020205)
655476.78	4192775.30	81.84207 (15011706)	655776.78	4192775.30	86.45741 (13021622)
656076.78	4192775.30	84.79530 (15011008)	656376.78	4192775.30	88.00408 (17122701)
656676.78	4192775.30	84.61912 (17012903)	653676.78	4193075.30	51.27406 (17013022)
653976.78	4193075.30	56.92892 (17121504)	654276.78	4193075.30	62.57213 (15010907)
654576.78	4193075.30	70.23795 (17020505)	654876.78	4193075.30	80.20849 (13013108)
655176.78	4193075.30	87.61855 (16042306)	655476.78	4193075.30	95.14257 (15021203)
655776.78	4193075.30	102.14423 (14021521)	656076.78	4193075.30	99.15858 (17012524)
656376.78	4193075.30	97.23876 (17122319)	656676.78	4193075.30	91.10837 (14012720)
653676.78	4193375.30	53.64244 (17021308)	653976.78	4193375.30	62.38655 (17021308)
654276.78	4193375.30	69.06145 (17021420)	654576.78	4193375.30	76.71297 (17121504)
654876.78	4193375.30	88.87238 (14120904)	655176.78	4193375.30	97.58198 (14021223)
655476.78	4193375.30	111.34650 (16011024)	655776.78	4193375.30	125.65144 (16041903)
656076.78	4193375.30	133.16885 (17121920)	656376.78	4193375.30	119.52909 (17041102)
656676.78	4193375.30	105.03926 (17012908)	653676.78	4193675.30	54.27455 (17011605)
653976.78	4193675.30	62.08408 (17121304)	654276.78	4193675.30	69.42650 (17121823)
654576.78	4193675.30	81.19961 (17123106)	654876.78	4193675.30	92.23282 (17021420)
655176.78	4193675.30	106.43294 (13041820)	655476.78	4193675.30	132.74617 (17020104)
655776.78	4193675.30	169.45686 (13040402)	656076.78	4193675.30	181.46380 (14121116)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22

*** AERMET - VERSION 18081 *** ***

*** 12:37:56

PAGE 305

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:

STCK9 ***

INCLUDING SOURCE(S): STCK9 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656376.78	4193675.30	163.06555 (17122517)	656676.78	4193675.30	121.27995 (15010718)
653676.78	4193975.30	55.78279 (17121420)	653976.78	4193975.30	64.50232 (17121420)
654276.78	4193975.30	73.44180 (17121420)	654576.78	4193975.30	80.45676 (17122902)
654876.78	4193975.30	95.18845 (17022506)	655176.78	4193975.30	118.81014 (15021608)
655476.78	4193975.30	160.75036 (17032401)	655776.78	4193975.30	252.36489 (13010809)
656076.78	4193975.30	323.37001 (15032620)	656376.78	4193975.30	183.87296 (17030921)
656676.78	4193975.30	134.44025 (17112222)	653676.78	4194275.30	54.75736 (17013107)
653976.78	4194275.30	62.76321 (17013107)	654276.78	4194275.30	72.13569 (17031805)
654576.78	4194275.30	85.26109 (17011121)	654876.78	4194275.30	98.40802 (17011121)
655176.78	4194275.30	125.66197 (17021502)	655476.78	4194275.30	161.95010 (17012402)
655776.78	4194275.30	291.01986 (17122809)	656076.78	4194275.30	392.85524 (17010120)
656376.78	4194275.30	194.17411 (15010617)	656676.78	4194275.30	142.55885 (14120819)
653676.78	4194575.30	51.87790 (17013021)	653976.78	4194575.30	58.72430 (17013021)
654276.78	4194575.30	71.82162 (17122608)	654576.78	4194575.30	81.14270 (17011201)
654876.78	4194575.30	93.38206 (17122805)	655176.78	4194575.30	112.77493 (17122524)
655476.78	4194575.30	137.90784 (15102307)	655776.78	4194575.30	167.42320 (15011809)
656076.78	4194575.30	181.85269 (14122609)	656376.78	4194575.30	158.03836 (13121017)
656676.78	4194575.30	127.06834 (17122322)	653676.78	4194875.30	51.84367 (17011201)
653976.78	4194875.30	57.91470 (17120706)	654276.78	4194875.30	68.18544 (17020404)
654576.78	4194875.30	77.02841 (17122402)	654876.78	4194875.30	82.83938 (13093002)
655176.78	4194875.30	98.15263 (17010902)	655476.78	4194875.30	111.61859 (16091821)
655776.78	4194875.30	124.37829 (17040405)	656076.78	4194875.30	131.82125 (17021222)
656376.78	4194875.30	122.20786 (17031007)	656676.78	4194875.30	107.44776 (14011519)
653676.78	4195175.30	52.04651 (17020404)	653976.78	4195175.30	56.63058 (17122402)
654276.78	4195175.30	58.61556 (16010209)	654576.78	4195175.30	66.61771 (14110808)
654876.78	4195175.30	76.04410 (17010902)	655176.78	4195175.30	86.16064 (14100520)
655476.78	4195175.30	94.09712 (15102423)	655776.78	4195175.30	104.42310 (16091820)
656076.78	4195175.30	103.01873 (17021222)	656376.78	4195175.30	100.17028 (15021919)
656676.78	4195175.30	94.16954 (17022324)	653676.78	4195475.30	46.82653 (16010209)
653976.78	4195475.30	51.10656 (15030108)	654276.78	4195475.30	56.11111 (14110808)
654576.78	4195475.30	59.04877 (17010902)	654876.78	4195475.30	69.56358 (17122909)
655176.78	4195475.30	73.35623 (17122724)	655476.78	4195475.30	79.39426 (17120219)
655776.78	4195475.30	85.73904 (17122901)	656076.78	4195475.30	86.62231 (17012720)
656376.78	4195475.30	86.23210 (17121401)	656676.78	4195475.30	81.65313 (17012921)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID AVERAGE CONC NETWORK
GRID-ID RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE

SLINE1 1ST HIGHEST VALUE IS 52.32395 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
2ND HIGHEST VALUE IS 51.59256 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC
3RD HIGHEST VALUE IS 48.73142 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
4TH HIGHEST VALUE IS 45.90277 AT (654876.78, 4193975.30, 7.08, 7.08, 0.00) DC
5TH HIGHEST VALUE IS 44.45957 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
6TH HIGHEST VALUE IS 38.05257 AT (656376.78, 4193975.30, 9.55, 9.55, 0.00) DC
7TH HIGHEST VALUE IS 36.20187 AT (654576.78, 4193975.30, 6.91, 6.91, 0.00) DC
8TH HIGHEST VALUE IS 5.94672 AT (655476.78, 4193675.30, 7.19, 7.19, 0.00) DC
9TH HIGHEST VALUE IS 5.86897 AT (655776.78, 4193675.30, 8.47, 8.47, 0.00) DC
10TH HIGHEST VALUE IS 5.80258 AT (655176.78, 4193675.30, 6.83, 6.83, 0.00) DC

SLINE10 1ST HIGHEST VALUE IS 88.57392 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
2ND HIGHEST VALUE IS 27.60172 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
3RD HIGHEST VALUE IS 15.71589 AT (655776.78, 4193675.30, 8.47, 8.47, 0.00) DC
4TH HIGHEST VALUE IS 14.19457 AT (655476.78, 4193675.30, 7.19, 7.19, 0.00) DC
5TH HIGHEST VALUE IS 9.79319 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC
6TH HIGHEST VALUE IS 7.07087 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
7TH HIGHEST VALUE IS 7.00840 AT (656076.78, 4193675.30, 8.79, 8.79, 0.00) DC
8TH HIGHEST VALUE IS 6.53208 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC
9TH HIGHEST VALUE IS 5.59211 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC
10TH HIGHEST VALUE IS 5.27336 AT (655176.78, 4193675.30, 6.83, 6.83, 0.00) DC

SLINE11 1ST HIGHEST VALUE IS 195.52566 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC
2ND HIGHEST VALUE IS 16.62910 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
3RD HIGHEST VALUE IS 16.25228 AT (655176.78, 4193675.30, 6.83, 6.83, 0.00) DC
4TH HIGHEST VALUE IS 14.66148 AT (654876.78, 4193975.30, 7.08, 7.08, 0.00) DC
5TH HIGHEST VALUE IS 13.05704 AT (655476.78, 4193675.30, 7.19, 7.19, 0.00) DC
6TH HIGHEST VALUE IS 6.66347 AT (654876.78, 4193675.30, 6.80, 6.80, 0.00) DC
7TH HIGHEST VALUE IS 6.60981 AT (654876.78, 4194275.30, 7.52, 7.52, 0.00) DC
8TH HIGHEST VALUE IS 5.89227 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC
9TH HIGHEST VALUE IS 5.61125 AT (655776.78, 4193675.30, 8.47, 8.47, 0.00) DC
10TH HIGHEST VALUE IS 5.49033 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC

SLINE12 1ST HIGHEST VALUE IS 101.94011 AT (654276.78, 4193975.30, 7.53, 7.53, 0.00) DC
2ND HIGHEST VALUE IS 20.29392 AT (654576.78, 4193975.30, 6.91, 6.91, 0.00) DC
3RD HIGHEST VALUE IS 19.06974 AT (653976.78, 4193975.30, 7.18, 7.18, 0.00) DC
4TH HIGHEST VALUE IS 12.79017 AT (653976.78, 4194275.30, 7.37, 7.37, 0.00) DC
5TH HIGHEST VALUE IS 9.95976 AT (654276.78, 4194275.30, 7.48, 7.48, 0.00) DC
6TH HIGHEST VALUE IS 8.82362 AT (654276.78, 4193675.30, 6.93, 6.93, 0.00) DC
7TH HIGHEST VALUE IS 8.24885 AT (654576.78, 4193675.30, 7.86, 7.86, 0.00) DC
8TH HIGHEST VALUE IS 5.54271 AT (654576.78, 4194275.30, 7.58, 7.58, 0.00) DC
9TH HIGHEST VALUE IS 5.52444 AT (654876.78, 4193975.30, 7.08, 7.08, 0.00) DC
10TH HIGHEST VALUE IS 5.50831 AT (653976.78, 4193675.30, 7.53, 7.53, 0.00) DC

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE
GRID-ID		

SLINE13 1ST HIGHEST VALUE IS 68.46339 AT (653976.78, 4194275.30, 7.37, 7.37, 0.00) DC

2ND HIGHEST VALUE IS 65.02634 AT (653976.78, 4194575.30, 7.01, 7.01, 0.00) DC

3RD HIGHEST VALUE IS 20.37337 AT (654276.78, 4194275.30, 7.48, 7.48, 0.00) DC

4TH HIGHEST VALUE IS 11.28997 AT (654276.78, 4194575.30, 7.37, 7.37, 0.00) DC

5TH HIGHEST VALUE IS 10.50852 AT (653976.78, 4193975.30, 7.18, 7.18, 0.00) DC

6TH HIGHEST VALUE IS 9.65875 AT (654276.78, 4193975.30, 7.53, 7.53, 0.00) DC

7TH HIGHEST VALUE IS 8.85259 AT (653676.78, 4194275.30, 6.79, 6.79, 0.00) DC

8TH HIGHEST VALUE IS 8.39571 AT (653676.78, 4194575.30, 6.59, 6.59, 0.00) DC

9TH HIGHEST VALUE IS 6.49457 AT (654576.78, 4194275.30, 7.58, 7.58, 0.00) DC

10TH HIGHEST VALUE IS 5.11868 AT (654576.78, 4193975.30, 6.91, 6.91, 0.00) DC

SLINE14 1ST HIGHEST VALUE IS 87.79678 AT (653813.62, 4193608.32, 7.37, 7.37, 0.00) DC

2ND HIGHEST VALUE IS 68.53957 AT (653976.78, 4193975.30, 7.18, 7.18, 0.00) DC

3RD HIGHEST VALUE IS 55.01503 AT (653776.43, 4193429.79, 6.82, 6.82, 0.00) DC

4TH HIGHEST VALUE IS 44.79143 AT (653831.84, 4193501.47, 7.53, 7.53, 0.00) DC

5TH HIGHEST VALUE IS 39.54713 AT (653798.32, 4193413.05, 7.01, 7.01, 0.00) DC

6TH HIGHEST VALUE IS 38.98328 AT (653815.06, 4193437.51, 7.15, 7.15, 0.00) DC

7TH HIGHEST VALUE IS 30.97643 AT (653676.78, 4193375.30, 7.17, 7.17, 0.00) DC

8TH HIGHEST VALUE IS 26.99314 AT (653976.78, 4193675.30, 7.53, 7.53, 0.00) DC

9TH HIGHEST VALUE IS 26.63323 AT (653915.64, 4193528.15, 7.72, 7.72, 0.00) DC

10TH HIGHEST VALUE IS 20.74038 AT (653676.78, 4193675.30, 6.71, 6.71, 0.00) DC

SLINE2 1ST HIGHEST VALUE IS 120.78334 AT (654576.78, 4194275.30, 7.58, 7.58, 0.00) DC

2ND HIGHEST VALUE IS 24.71534 AT (654876.78, 4193975.30, 7.08, 7.08, 0.00) DC

3RD HIGHEST VALUE IS 23.77806 AT (654576.78, 4193975.30, 6.91, 6.91, 0.00) DC

4TH HIGHEST VALUE IS 12.45600 AT (654276.78, 4194275.30, 7.48, 7.48, 0.00) DC

5TH HIGHEST VALUE IS 12.39522 AT (654876.78, 4194275.30, 7.52, 7.52, 0.00) DC

6TH HIGHEST VALUE IS 6.89549 AT (654276.78, 4193975.30, 7.53, 7.53, 0.00) DC

7TH HIGHEST VALUE IS 6.76275 AT (654276.78, 4194575.30, 7.37, 7.37, 0.00) DC

8TH HIGHEST VALUE IS 6.50521 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC

9TH HIGHEST VALUE IS 6.16853 AT (654876.78, 4193675.30, 6.80, 6.80, 0.00) DC

10TH HIGHEST VALUE IS 5.83365 AT (654576.78, 4194575.30, 7.62, 7.62, 0.00) DC

SLINE3 1ST HIGHEST VALUE IS 82.95134 AT (654876.78, 4194275.30, 7.52, 7.52, 0.00) DC

2ND HIGHEST VALUE IS 33.03640 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC

3RD HIGHEST VALUE IS 15.90815 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC

4TH HIGHEST VALUE IS 14.81082 AT (654876.78, 4193975.30, 7.08, 7.08, 0.00) DC

5TH HIGHEST VALUE IS 10.69636 AT (654876.78, 4194575.30, 7.80, 7.80, 0.00) DC

6TH HIGHEST VALUE IS 9.66478 AT (654576.78, 4194275.30, 7.58, 7.58, 0.00) DC

7TH HIGHEST VALUE IS 8.46045 AT (654576.78, 4194575.30, 7.62, 7.62, 0.00) DC

8TH HIGHEST VALUE IS 7.01279 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC

9TH HIGHEST VALUE IS 5.66065 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC

10TH HIGHEST VALUE IS 5.48514 AT (655176.78, 4193675.30, 6.83, 6.83, 0.00) DC

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*** AERMET - VERSION 18081 *** **

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	NETWORK	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE
GRID-ID			

SLINE4	1ST HIGHEST VALUE IS	45.83337 AT (655176.78, 4194275.30,	7.82, 7.82, 0.00) DC
	2ND HIGHEST VALUE IS	36.30462 AT (655476.78, 4193975.30,	8.08, 8.08, 0.00) DC
	3RD HIGHEST VALUE IS	27.03328 AT (655176.78, 4194575.30,	8.02, 8.02, 0.00) DC
	4TH HIGHEST VALUE IS	17.82582 AT (655476.78, 4194275.30,	8.27, 8.27, 0.00) DC
	5TH HIGHEST VALUE IS	11.22604 AT (655176.78, 4193975.30,	7.42, 7.42, 0.00) DC
	6TH HIGHEST VALUE IS	10.47239 AT (654876.78, 4194575.30,	7.80, 7.80, 0.00) DC
	7TH HIGHEST VALUE IS	8.30221 AT (654876.78, 4194275.30,	7.52, 7.52, 0.00) DC
	8TH HIGHEST VALUE IS	6.94380 AT (655776.78, 4193975.30,	8.61, 8.61, 0.00) DC
	9TH HIGHEST VALUE IS	6.69146 AT (655476.78, 4194575.30,	8.38, 8.38, 0.00) DC
	10TH HIGHEST VALUE IS	5.99079 AT (655776.78, 4194275.30,	8.72, 8.72, 0.00) DC

SLINE5	1ST HIGHEST VALUE IS	85.93032 AT (655476.78, 4194575.30,	8.38, 8.38, 0.00) DC
	2ND HIGHEST VALUE IS	26.31278 AT (655476.78, 4194275.30,	8.27, 8.27, 0.00) DC
	3RD HIGHEST VALUE IS	23.71777 AT (655776.78, 4193975.30,	8.61, 8.61, 0.00) DC
	4TH HIGHEST VALUE IS	19.84388 AT (655776.78, 4194275.30,	8.72, 8.72, 0.00) DC
	5TH HIGHEST VALUE IS	10.43114 AT (655776.78, 4194575.30,	8.28, 8.28, 0.00) DC
	6TH HIGHEST VALUE IS	9.24069 AT (655476.78, 4193975.30,	8.08, 8.08, 0.00) DC
	7TH HIGHEST VALUE IS	8.32338 AT (655176.78, 4194575.30,	8.02, 8.02, 0.00) DC
	8TH HIGHEST VALUE IS	6.50312 AT (655176.78, 4194275.30,	7.82, 7.82, 0.00) DC
	9TH HIGHEST VALUE IS	6.34883 AT (656076.78, 4194275.30,	8.85, 8.85, 0.00) DC
	10TH HIGHEST VALUE IS	6.20813 AT (656076.78, 4193975.30,	9.09, 9.09, 0.00) DC

SLINE6	1ST HIGHEST VALUE IS	71.00666 AT (656076.78, 4193975.30,	9.09, 9.09, 0.00) DC
	2ND HIGHEST VALUE IS	41.29965 AT (656076.78, 4194275.30,	8.85, 8.85, 0.00) DC
	3RD HIGHEST VALUE IS	17.94542 AT (655776.78, 4194275.30,	8.72, 8.72, 0.00) DC
	4TH HIGHEST VALUE IS	13.04391 AT (655776.78, 4193975.30,	8.61, 8.61, 0.00) DC
	5TH HIGHEST VALUE IS	12.24374 AT (656376.78, 4193975.30,	9.55, 9.55, 0.00) DC
	6TH HIGHEST VALUE IS	8.44224 AT (656376.78, 4194275.30,	9.45, 9.45, 0.00) DC
	7TH HIGHEST VALUE IS	6.60370 AT (656076.78, 4193675.30,	8.79, 8.79, 0.00) DC
	8TH HIGHEST VALUE IS	5.78102 AT (656376.78, 4193675.30,	9.38, 9.38, 0.00) DC
	9TH HIGHEST VALUE IS	5.50125 AT (655476.78, 4194275.30,	8.27, 8.27, 0.00) DC
	10TH HIGHEST VALUE IS	5.06688 AT (655776.78, 4194575.30,	8.28, 8.28, 0.00) DC

SLINE7	1ST HIGHEST VALUE IS	86.58656 AT (656376.78, 4193975.30,	9.55, 9.55, 0.00) DC
	2ND HIGHEST VALUE IS	26.16278 AT (656376.78, 4194275.30,	9.45, 9.45, 0.00) DC
	3RD HIGHEST VALUE IS	15.11271 AT (656076.78, 4194275.30,	8.85, 8.85, 0.00) DC
	4TH HIGHEST VALUE IS	13.79027 AT (656676.78, 4193975.30,	9.29, 9.29, 0.00) DC
	5TH HIGHEST VALUE IS	12.73668 AT (656076.78, 4193975.30,	9.09, 9.09, 0.00) DC
	6TH HIGHEST VALUE IS	8.23601 AT (656676.78, 4194275.30,	9.51, 9.51, 0.00) DC
	7TH HIGHEST VALUE IS	6.82056 AT (656376.78, 4193675.30,	9.38, 9.38, 0.00) DC
	8TH HIGHEST VALUE IS	6.18695 AT (656676.78, 4193675.30,	9.14, 9.14, 0.00) DC
	9TH HIGHEST VALUE IS	5.13545 AT (655776.78, 4194275.30,	8.72, 8.72, 0.00) DC
	10TH HIGHEST VALUE IS	4.65884 AT (656076.78, 4193675.30,	8.79, 8.79, 0.00) DC

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	NETWORK	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE
GRID-ID				

SLINE8	1ST HIGHEST VALUE IS	90.47872 AT (656076.78, 4193975.30,	9.09,	9.09,	0.00)	DC
	2ND HIGHEST VALUE IS	26.88870 AT (656376.78, 4193975.30,	9.55,	9.55,	0.00)	DC
	3RD HIGHEST VALUE IS	15.70999 AT (656376.78, 4193675.30,	9.38,	9.38,	0.00)	DC
	4TH HIGHEST VALUE IS	14.55194 AT (656076.78, 4193675.30,	8.79,	8.79,	0.00)	DC
	5TH HIGHEST VALUE IS	9.88815 AT (655776.78, 4193975.30,	8.61,	8.61,	0.00)	DC
	6TH HIGHEST VALUE IS	6.98884 AT (656676.78, 4193975.30,	9.29,	9.29,	0.00)	DC
	7TH HIGHEST VALUE IS	6.93690 AT (656676.78, 4193675.30,	9.14,	9.14,	0.00)	DC
	8TH HIGHEST VALUE IS	6.56886 AT (656076.78, 4194275.30,	8.85,	8.85,	0.00)	DC
	9TH HIGHEST VALUE IS	5.64178 AT (655776.78, 4194275.30,	8.72,	8.72,	0.00)	DC
	10TH HIGHEST VALUE IS	5.34574 AT (655776.78, 4193675.30,	8.47,	8.47,	0.00)	DC

SLINE9	1ST HIGHEST VALUE IS	108.45660 AT (655776.78, 4193975.30,	8.61,	8.61,	0.00)	DC
	2ND HIGHEST VALUE IS	25.50941 AT (656076.78, 4193975.30,	9.09,	9.09,	0.00)	DC
	3RD HIGHEST VALUE IS	15.13690 AT (656076.78, 4193675.30,	8.79,	8.79,	0.00)	DC
	4TH HIGHEST VALUE IS	14.72704 AT (655776.78, 4193675.30,	8.47,	8.47,	0.00)	DC
	5TH HIGHEST VALUE IS	10.37093 AT (655476.78, 4193975.30,	8.08,	8.08,	0.00)	DC
	6TH HIGHEST VALUE IS	6.79842 AT (656376.78, 4193975.30,	9.55,	9.55,	0.00)	DC
	7TH HIGHEST VALUE IS	6.72912 AT (656376.78, 4193675.30,	9.38,	9.38,	0.00)	DC
	8TH HIGHEST VALUE IS	6.53129 AT (655776.78, 4194275.30,	8.72,	8.72,	0.00)	DC
	9TH HIGHEST VALUE IS	5.81012 AT (655476.78, 4194275.30,	8.27,	8.27,	0.00)	DC
	10TH HIGHEST VALUE IS	5.40570 AT (655476.78, 4193675.30,	7.19,	7.19,	0.00)	DC

STCK1	1ST HIGHEST VALUE IS	108.83415 AT (654576.78, 4194275.30,	7.58,	7.58,	0.00)	DC
	2ND HIGHEST VALUE IS	9.65586 AT (654876.78, 4194275.30,	7.52,	7.52,	0.00)	DC
	3RD HIGHEST VALUE IS	6.78909 AT (654876.78, 4193975.30,	7.08,	7.08,	0.00)	DC
	4TH HIGHEST VALUE IS	5.61475 AT (654576.78, 4193975.30,	6.91,	6.91,	0.00)	DC
	5TH HIGHEST VALUE IS	4.70625 AT (654276.78, 4194575.30,	7.37,	7.37,	0.00)	DC
	6TH HIGHEST VALUE IS	4.24948 AT (654276.78, 4194275.30,	7.48,	7.48,	0.00)	DC
	7TH HIGHEST VALUE IS	3.99241 AT (655176.78, 4194275.30,	7.82,	7.82,	0.00)	DC
	8TH HIGHEST VALUE IS	3.89372 AT (655176.78, 4193975.30,	7.42,	7.42,	0.00)	DC
	9TH HIGHEST VALUE IS	2.86862 AT (654876.78, 4193675.30,	6.80,	6.80,	0.00)	DC
	10TH HIGHEST VALUE IS	2.81915 AT (653976.78, 4194275.30,	7.37,	7.37,	0.00)	DC

STCK10	1ST HIGHEST VALUE IS	18.79778 AT (656376.78, 4193975.30,	9.55,	9.55,	0.00)	DC
	2ND HIGHEST VALUE IS	9.87233 AT (656676.78, 4193975.30,	9.29,	9.29,	0.00)	DC
	3RD HIGHEST VALUE IS	5.95712 AT (656076.78, 4194275.30,	8.85,	8.85,	0.00)	DC
	4TH HIGHEST VALUE IS	4.47445 AT (656676.78, 4194275.30,	9.51,	9.51,	0.00)	DC
	5TH HIGHEST VALUE IS	4.43990 AT (656676.78, 4193675.30,	9.14,	9.14,	0.00)	DC
	6TH HIGHEST VALUE IS	3.64039 AT (656376.78, 4194275.30,	9.45,	9.45,	0.00)	DC

7TH HIGHEST VALUE IS 3.60467 AT (656376.78, 4193675.30, 9.38, 9.38, 0.00) DC
8TH HIGHEST VALUE IS 3.00055 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
9TH HIGHEST VALUE IS 2.94915 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
10TH HIGHEST VALUE IS 2.56005 AT (656076.78, 4194575.30, 8.25, 8.25, 0.00) DC
*** AERMOD - VERSION 19191 *** ** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 02/22/22
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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID AVERAGE CONC NETWORK
GRID-ID RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE

STCK11 1ST HIGHEST VALUE IS 15.97431 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
2ND HIGHEST VALUE IS 11.70362 AT (656376.78, 4193675.30, 9.38, 9.38, 0.00) DC
3RD HIGHEST VALUE IS 10.50024 AT (656376.78, 4193975.30, 9.55, 9.55, 0.00) DC
4TH HIGHEST VALUE IS 5.72076 AT (656676.78, 4193675.30, 9.14, 9.14, 0.00) DC
5TH HIGHEST VALUE IS 5.31238 AT (656076.78, 4193675.30, 8.79, 8.79, 0.00) DC
6TH HIGHEST VALUE IS 4.84233 AT (656676.78, 4193975.30, 9.29, 9.29, 0.00) DC
7TH HIGHEST VALUE IS 3.93700 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
8TH HIGHEST VALUE IS 3.50271 AT (656376.78, 4193375.30, 8.47, 8.47, 0.00) DC
9TH HIGHEST VALUE IS 3.30738 AT (656676.78, 4193375.30, 9.12, 9.12, 0.00) DC
10TH HIGHEST VALUE IS 3.29573 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC

STCK12 1ST HIGHEST VALUE IS 18.17515 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
2ND HIGHEST VALUE IS 11.98523 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
3RD HIGHEST VALUE IS 10.57318 AT (656076.78, 4193675.30, 8.79, 8.79, 0.00) DC
4TH HIGHEST VALUE IS 5.42783 AT (656376.78, 4193675.30, 9.38, 9.38, 0.00) DC
5TH HIGHEST VALUE IS 5.33515 AT (655776.78, 4193675.30, 8.47, 8.47, 0.00) DC
6TH HIGHEST VALUE IS 4.83589 AT (656376.78, 4193975.30, 9.55, 9.55, 0.00) DC
7TH HIGHEST VALUE IS 4.00132 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
8TH HIGHEST VALUE IS 3.46570 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC
9TH HIGHEST VALUE IS 3.39361 AT (656076.78, 4193375.30, 8.27, 8.27, 0.00) DC
10TH HIGHEST VALUE IS 3.15304 AT (656376.78, 4193375.30, 8.47, 8.47, 0.00) DC

STCK13 1ST HIGHEST VALUE IS 15.53198 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
2ND HIGHEST VALUE IS 12.00199 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
3RD HIGHEST VALUE IS 10.93365 AT (655776.78, 4193675.30, 8.47, 8.47, 0.00) DC
4TH HIGHEST VALUE IS 5.62475 AT (656076.78, 4193675.30, 8.79, 8.79, 0.00) DC
5TH HIGHEST VALUE IS 5.04845 AT (655476.78, 4193675.30, 7.19, 7.19, 0.00) DC
6TH HIGHEST VALUE IS 4.93407 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
7TH HIGHEST VALUE IS 3.88992 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC
8TH HIGHEST VALUE IS 3.43725 AT (655776.78, 4193375.30, 8.49, 8.49, 0.00) DC
9TH HIGHEST VALUE IS 3.38145 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC
10TH HIGHEST VALUE IS 3.21597 AT (656076.78, 4193375.30, 8.27, 8.27, 0.00) DC

STCK14 1ST HIGHEST VALUE IS 10.70083 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC
2ND HIGHEST VALUE IS 9.72169 AT (655476.78, 4193675.30, 7.19, 7.19, 0.00) DC

3RD HIGHEST VALUE IS 8.82525 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
4TH HIGHEST VALUE IS 6.30383 AT (655176.78, 4193675.30, 6.83, 6.83, 0.00) DC
5TH HIGHEST VALUE IS 4.71640 AT (654876.78, 4193975.30, 7.08, 7.08, 0.00) DC
6TH HIGHEST VALUE IS 4.61018 AT (655776.78, 4193675.30, 8.47, 8.47, 0.00) DC
7TH HIGHEST VALUE IS 4.01821 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
8TH HIGHEST VALUE IS 3.68023 AT (654876.78, 4194275.30, 7.52, 7.52, 0.00) DC
9TH HIGHEST VALUE IS 3.53367 AT (655476.78, 4193375.30, 7.42, 7.42, 0.00) DC
10TH HIGHEST VALUE IS 3.02338 AT (655776.78, 4193375.30, 8.49, 8.49, 0.00) DC
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE
GRID-ID		

STCK15 1ST HIGHEST VALUE IS 172.71796 AT (654576.78, 4194275.30, 7.58, 7.58, 0.00) DC
2ND HIGHEST VALUE IS 12.92085 AT (654876.78, 4194275.30, 7.52, 7.52, 0.00) DC
3RD HIGHEST VALUE IS 12.73445 AT (654276.78, 4194275.30, 7.48, 7.48, 0.00) DC
4TH HIGHEST VALUE IS 9.09249 AT (654576.78, 4193975.30, 6.91, 6.91, 0.00) DC
5TH HIGHEST VALUE IS 8.34918 AT (654876.78, 4193975.30, 7.08, 7.08, 0.00) DC
6TH HIGHEST VALUE IS 7.76794 AT (654276.78, 4194575.30, 7.37, 7.37, 0.00) DC
7TH HIGHEST VALUE IS 5.37376 AT (654576.78, 4194575.30, 7.62, 7.62, 0.00) DC
8TH HIGHEST VALUE IS 5.08225 AT (654276.78, 4193975.30, 7.53, 7.53, 0.00) DC
9TH HIGHEST VALUE IS 4.84475 AT (653976.78, 4194275.30, 7.37, 7.37, 0.00) DC
10TH HIGHEST VALUE IS 4.77806 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC

STCK16 1ST HIGHEST VALUE IS 25.33813 AT (654576.78, 4194275.30, 7.58, 7.58, 0.00) DC
2ND HIGHEST VALUE IS 15.16352 AT (654876.78, 4193975.30, 7.08, 7.08, 0.00) DC
3RD HIGHEST VALUE IS 13.71973 AT (654576.78, 4193975.30, 6.91, 6.91, 0.00) DC
4TH HIGHEST VALUE IS 12.40315 AT (654876.78, 4194275.30, 7.52, 7.52, 0.00) DC
5TH HIGHEST VALUE IS 9.33740 AT (654276.78, 4194275.30, 7.48, 7.48, 0.00) DC
6TH HIGHEST VALUE IS 6.07308 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC
7TH HIGHEST VALUE IS 5.53222 AT (654276.78, 4193975.30, 7.53, 7.53, 0.00) DC
8TH HIGHEST VALUE IS 5.19486 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC
9TH HIGHEST VALUE IS 4.84124 AT (654276.78, 4194575.30, 7.37, 7.37, 0.00) DC
10TH HIGHEST VALUE IS 4.83983 AT (654876.78, 4193675.30, 6.80, 6.80, 0.00) DC

STCK17 1ST HIGHEST VALUE IS 30.68130 AT (654876.78, 4194275.30, 7.52, 7.52, 0.00) DC
2ND HIGHEST VALUE IS 13.74354 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC
3RD HIGHEST VALUE IS 10.82402 AT (654576.78, 4194575.30, 7.62, 7.62, 0.00) DC
4TH HIGHEST VALUE IS 9.89863 AT (654876.78, 4194575.30, 7.80, 7.80, 0.00) DC
5TH HIGHEST VALUE IS 8.07980 AT (654576.78, 4194275.30, 7.58, 7.58, 0.00) DC
6TH HIGHEST VALUE IS 6.92914 AT (655176.78, 4194575.30, 8.02, 8.02, 0.00) DC
7TH HIGHEST VALUE IS 5.67176 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC
8TH HIGHEST VALUE IS 5.40186 AT (654876.78, 4193975.30, 7.08, 7.08, 0.00) DC
9TH HIGHEST VALUE IS 5.13599 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC

10TH HIGHEST VALUE IS 4.49546 AT (654276.78, 4194575.30, 7.37, 7.37, 0.00) DC

STCK18 1ST HIGHEST VALUE IS 44.77123 AT (654876.78, 4194275.30, 7.52, 7.52, 0.00) DC

2ND HIGHEST VALUE IS 19.24156 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC

3RD HIGHEST VALUE IS 11.54725 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC

4TH HIGHEST VALUE IS 9.74715 AT (654876.78, 4193975.30, 7.08, 7.08, 0.00) DC

5TH HIGHEST VALUE IS 9.34575 AT (654576.78, 4194275.30, 7.58, 7.58, 0.00) DC

6TH HIGHEST VALUE IS 5.97777 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC

7TH HIGHEST VALUE IS 5.85762 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC

8TH HIGHEST VALUE IS 5.75562 AT (654576.78, 4194575.30, 7.62, 7.62, 0.00) DC

9TH HIGHEST VALUE IS 5.01761 AT (654876.78, 4194575.30, 7.80, 7.80, 0.00) DC

10TH HIGHEST VALUE IS 4.44977 AT (654576.78, 4193975.30, 6.91, 6.91, 0.00) DC

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	NETWORK	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE
GRID-ID			

STCK19 1ST HIGHEST VALUE IS 21.92661 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC

2ND HIGHEST VALUE IS 13.24466 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC

3RD HIGHEST VALUE IS 11.97243 AT (655176.78, 4194575.30, 8.02, 8.02, 0.00) DC

4TH HIGHEST VALUE IS 11.45792 AT (654876.78, 4194575.30, 7.80, 7.80, 0.00) DC

5TH HIGHEST VALUE IS 8.31923 AT (655476.78, 4194575.30, 8.38, 8.38, 0.00) DC

6TH HIGHEST VALUE IS 7.11750 AT (654876.78, 4194275.30, 7.52, 7.52, 0.00) DC

7TH HIGHEST VALUE IS 5.15058 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC

8TH HIGHEST VALUE IS 5.14691 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC

9TH HIGHEST VALUE IS 4.82163 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC

10TH HIGHEST VALUE IS 4.59042 AT (654576.78, 4194575.30, 7.62, 7.62, 0.00) DC

STCK2 1ST HIGHEST VALUE IS 7.57031 AT (654876.78, 4193975.30, 7.08, 7.08, 0.00) DC

2ND HIGHEST VALUE IS 3.68251 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC

3RD HIGHEST VALUE IS 3.47451 AT (654876.78, 4194275.30, 7.52, 7.52, 0.00) DC

4TH HIGHEST VALUE IS 2.94977 AT (654576.78, 4194275.30, 7.58, 7.58, 0.00) DC

5TH HIGHEST VALUE IS 2.60638 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC

6TH HIGHEST VALUE IS 2.51460 AT (654876.78, 4193675.30, 6.80, 6.80, 0.00) DC

7TH HIGHEST VALUE IS 2.49385 AT (655176.78, 4193675.30, 6.83, 6.83, 0.00) DC

8TH HIGHEST VALUE IS 2.16115 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC

9TH HIGHEST VALUE IS 1.98419 AT (654576.78, 4193975.30, 6.91, 6.91, 0.00) DC

10TH HIGHEST VALUE IS 1.88532 AT (655476.78, 4193675.30, 7.19, 7.19, 0.00) DC

STCK20 1ST HIGHEST VALUE IS 26.94374 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC

2ND HIGHEST VALUE IS 25.73938 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC

3RD HIGHEST VALUE IS 10.76397 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC

4TH HIGHEST VALUE IS 8.39591 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC

5TH HIGHEST VALUE IS 7.82718 AT (654876.78, 4194275.30, 7.52, 7.52, 0.00) DC

6TH HIGHEST VALUE IS 6.91878 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
7TH HIGHEST VALUE IS 6.21384 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
8TH HIGHEST VALUE IS 6.17398 AT (655176.78, 4194575.30, 8.02, 8.02, 0.00) DC
9TH HIGHEST VALUE IS 5.53737 AT (654876.78, 4194575.30, 7.80, 7.80, 0.00) DC
10TH HIGHEST VALUE IS 4.25437 AT (655476.78, 4194575.30, 8.38, 8.38, 0.00) DC

STCK21 1ST HIGHEST VALUE IS 16.19815 AT (655776.78, 4194575.30, 8.28, 8.28, 0.00) DC
2ND HIGHEST VALUE IS 10.65452 AT (655176.78, 4194575.30, 8.02, 8.02, 0.00) DC
3RD HIGHEST VALUE IS 9.99830 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
4TH HIGHEST VALUE IS 9.32089 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC
5TH HIGHEST VALUE IS 6.55306 AT (655176.78, 4194875.30, 8.10, 8.10, 0.00) DC
6TH HIGHEST VALUE IS 5.41909 AT (656076.78, 4194575.30, 8.25, 8.25, 0.00) DC
7TH HIGHEST VALUE IS 5.18698 AT (656076.78, 4194275.30, 8.85, 8.85, 0.00) DC
8TH HIGHEST VALUE IS 5.10948 AT (655476.78, 4194875.30, 8.26, 8.26, 0.00) DC
9TH HIGHEST VALUE IS 4.61575 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC
10TH HIGHEST VALUE IS 4.28568 AT (654876.78, 4194575.30, 7.80, 7.80, 0.00) DC

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

NETWORK

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE
GRID-ID		

STCK22 1ST HIGHEST VALUE IS 33.75022 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
2ND HIGHEST VALUE IS 20.33829 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC
3RD HIGHEST VALUE IS 9.96316 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
4TH HIGHEST VALUE IS 7.61832 AT (656076.78, 4194275.30, 8.85, 8.85, 0.00) DC
5TH HIGHEST VALUE IS 7.51287 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
6TH HIGHEST VALUE IS 7.34419 AT (655476.78, 4194575.30, 8.38, 8.38, 0.00) DC
7TH HIGHEST VALUE IS 6.99784 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC
8TH HIGHEST VALUE IS 6.30642 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
9TH HIGHEST VALUE IS 5.42352 AT (655176.78, 4194575.30, 8.02, 8.02, 0.00) DC
10TH HIGHEST VALUE IS 4.70022 AT (655776.78, 4194575.30, 8.28, 8.28, 0.00) DC

STCK23 1ST HIGHEST VALUE IS 25.03574 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
2ND HIGHEST VALUE IS 13.55242 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
3RD HIGHEST VALUE IS 11.60115 AT (656076.78, 4194275.30, 8.85, 8.85, 0.00) DC
4TH HIGHEST VALUE IS 11.29851 AT (656376.78, 4193975.30, 9.55, 9.55, 0.00) DC
5TH HIGHEST VALUE IS 7.83609 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
6TH HIGHEST VALUE IS 7.58384 AT (656376.78, 4194275.30, 9.45, 9.45, 0.00) DC
7TH HIGHEST VALUE IS 5.04560 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC
8TH HIGHEST VALUE IS 5.04337 AT (656076.78, 4193675.30, 8.79, 8.79, 0.00) DC
9TH HIGHEST VALUE IS 4.96752 AT (656376.78, 4193675.30, 9.38, 9.38, 0.00) DC
10TH HIGHEST VALUE IS 4.65586 AT (656676.78, 4193975.30, 9.29, 9.29, 0.00) DC

STCK24 1ST HIGHEST VALUE IS 29.63768 AT (656376.78, 4193975.30, 9.55, 9.55, 0.00) DC

2ND HIGHEST VALUE IS 12.50731 AT (656676.78, 4193975.30, 9.29, 9.29, 0.00) DC
3RD HIGHEST VALUE IS 11.77426 AT (656076.78, 4194275.30, 8.85, 8.85, 0.00) DC
4TH HIGHEST VALUE IS 10.34390 AT (656376.78, 4194275.30, 9.45, 9.45, 0.00) DC
5TH HIGHEST VALUE IS 8.08664 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
6TH HIGHEST VALUE IS 7.11433 AT (656676.78, 4194275.30, 9.51, 9.51, 0.00) DC
7TH HIGHEST VALUE IS 5.37875 AT (656676.78, 4193675.30, 9.14, 9.14, 0.00) DC
8TH HIGHEST VALUE IS 5.35001 AT (656376.78, 4193675.30, 9.38, 9.38, 0.00) DC
9TH HIGHEST VALUE IS 4.72171 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
10TH HIGHEST VALUE IS 3.94656 AT (656076.78, 4194575.30, 8.25, 8.25, 0.00) DC

STCK25 1ST HIGHEST VALUE IS 34.91021 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
2ND HIGHEST VALUE IS 17.87176 AT (656376.78, 4193975.30, 9.55, 9.55, 0.00) DC
3RD HIGHEST VALUE IS 15.27097 AT (656376.78, 4193675.30, 9.38, 9.38, 0.00) DC
4TH HIGHEST VALUE IS 11.06595 AT (656076.78, 4193675.30, 8.79, 8.79, 0.00) DC
5TH HIGHEST VALUE IS 7.88123 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
6TH HIGHEST VALUE IS 6.83846 AT (656676.78, 4193675.30, 9.14, 9.14, 0.00) DC
7TH HIGHEST VALUE IS 6.27465 AT (656676.78, 4193975.30, 9.29, 9.29, 0.00) DC
8TH HIGHEST VALUE IS 4.77467 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
9TH HIGHEST VALUE IS 4.56142 AT (655776.78, 4193675.30, 8.47, 8.47, 0.00) DC
10TH HIGHEST VALUE IS 4.55638 AT (656376.78, 4193375.30, 8.47, 8.47, 0.00) DC

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*** AERMET - VERSION 18081 *** *** 12:37:56

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID AVERAGE CONC NETWORK
GRID-ID RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE

STCK26 1ST HIGHEST VALUE IS 40.67702 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
2ND HIGHEST VALUE IS 19.07747 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
3RD HIGHEST VALUE IS 13.68883 AT (656076.78, 4193675.30, 8.79, 8.79, 0.00) DC
4TH HIGHEST VALUE IS 10.75582 AT (655776.78, 4193675.30, 8.47, 8.47, 0.00) DC
5TH HIGHEST VALUE IS 8.33791 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
6TH HIGHEST VALUE IS 6.45630 AT (656376.78, 4193675.30, 9.38, 9.38, 0.00) DC
7TH HIGHEST VALUE IS 6.18958 AT (656376.78, 4193975.30, 9.55, 9.55, 0.00) DC
8TH HIGHEST VALUE IS 5.09110 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC
9TH HIGHEST VALUE IS 4.69528 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
10TH HIGHEST VALUE IS 4.41201 AT (655476.78, 4193675.30, 7.19, 7.19, 0.00) DC

STCK27 1ST HIGHEST VALUE IS 35.94977 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
2ND HIGHEST VALUE IS 19.61013 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
3RD HIGHEST VALUE IS 14.24710 AT (655776.78, 4193675.30, 8.47, 8.47, 0.00) DC
4TH HIGHEST VALUE IS 10.32379 AT (655476.78, 4193675.30, 7.19, 7.19, 0.00) DC
5TH HIGHEST VALUE IS 7.93636 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC
6TH HIGHEST VALUE IS 6.70757 AT (656076.78, 4193675.30, 8.79, 8.79, 0.00) DC
7TH HIGHEST VALUE IS 6.36315 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
8TH HIGHEST VALUE IS 4.92878 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC

9TH HIGHEST VALUE IS	4.72801 AT (655476.78, 4194275.30,	8.27,	8.27,	0.00) DC
10TH HIGHEST VALUE IS	4.43287 AT (655776.78, 4193375.30,	8.49,	8.49,	0.00) DC

STCK28 1ST HIGHEST VALUE IS	23.21149 AT (655176.78, 4193975.30,	7.42,	7.42,	0.00) DC
2ND HIGHEST VALUE IS	13.23876 AT (655476.78, 4193975.30,	8.08,	8.08,	0.00) DC
3RD HIGHEST VALUE IS	12.28218 AT (655476.78, 4193675.30,	7.19,	7.19,	0.00) DC
4TH HIGHEST VALUE IS	12.05214 AT (655176.78, 4193675.30,	6.83,	6.83,	0.00) DC
5TH HIGHEST VALUE IS	10.89154 AT (654876.78, 4193975.30,	7.08,	7.08,	0.00) DC
6TH HIGHEST VALUE IS	5.56376 AT (654876.78, 4194275.30,	7.52,	7.52,	0.00) DC
7TH HIGHEST VALUE IS	5.42760 AT (655776.78, 4193675.30,	8.47,	8.47,	0.00) DC
8TH HIGHEST VALUE IS	5.33206 AT (654876.78, 4193675.30,	6.80,	6.80,	0.00) DC
9TH HIGHEST VALUE IS	5.03506 AT (655776.78, 4193975.30,	8.61,	8.61,	0.00) DC
10TH HIGHEST VALUE IS	4.36698 AT (655476.78, 4193375.30,	7.42,	7.42,	0.00) DC

STCK3 1ST HIGHEST VALUE IS	18.34571 AT (654876.78, 4194275.30,	7.52,	7.52,	0.00) DC
2ND HIGHEST VALUE IS	10.74874 AT (655176.78, 4194275.30,	7.82,	7.82,	0.00) DC
3RD HIGHEST VALUE IS	5.68689 AT (654576.78, 4194575.30,	7.62,	7.62,	0.00) DC
4TH HIGHEST VALUE IS	4.64850 AT (655176.78, 4193975.30,	7.42,	7.42,	0.00) DC
5TH HIGHEST VALUE IS	4.35914 AT (655476.78, 4194275.30,	8.27,	8.27,	0.00) DC
6TH HIGHEST VALUE IS	4.17884 AT (655176.78, 4194575.30,	8.02,	8.02,	0.00) DC
7TH HIGHEST VALUE IS	3.53285 AT (654876.78, 4193975.30,	7.08,	7.08,	0.00) DC
8TH HIGHEST VALUE IS	3.52334 AT (654876.78, 4194575.30,	7.80,	7.80,	0.00) DC
9TH HIGHEST VALUE IS	3.45692 AT (655476.78, 4193975.30,	8.08,	8.08,	0.00) DC
10TH HIGHEST VALUE IS	3.04383 AT (654576.78, 4194275.30,	7.58,	7.58,	0.00) DC

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	NETWORK	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE
GRID-ID			

STCK4 1ST HIGHEST VALUE IS	17.93376 AT (654876.78, 4194275.30,	7.52,	7.52,	0.00) DC
2ND HIGHEST VALUE IS	13.04726 AT (655176.78, 4194275.30,	7.82,	7.82,	0.00) DC
3RD HIGHEST VALUE IS	9.04450 AT (655176.78, 4193975.30,	7.42,	7.42,	0.00) DC
4TH HIGHEST VALUE IS	5.03830 AT (654876.78, 4193975.30,	7.08,	7.08,	0.00) DC
5TH HIGHEST VALUE IS	4.97186 AT (655476.78, 4193975.30,	8.08,	8.08,	0.00) DC
6TH HIGHEST VALUE IS	4.77732 AT (655476.78, 4194275.30,	8.27,	8.27,	0.00) DC
7TH HIGHEST VALUE IS	4.19813 AT (654576.78, 4194275.30,	7.58,	7.58,	0.00) DC
8TH HIGHEST VALUE IS	3.83204 AT (654576.78, 4194575.30,	7.62,	7.62,	0.00) DC
9TH HIGHEST VALUE IS	3.18130 AT (655176.78, 4193675.30,	6.83,	6.83,	0.00) DC
10TH HIGHEST VALUE IS	2.92545 AT (655476.78, 4193675.30,	7.19,	7.19,	0.00) DC

STCK5 1ST HIGHEST VALUE IS	12.59654 AT (655176.78, 4194275.30,	7.82,	7.82,	0.00) DC
2ND HIGHEST VALUE IS	10.44968 AT (655476.78, 4194275.30,	8.27,	8.27,	0.00) DC
3RD HIGHEST VALUE IS	5.54942 AT (654876.78, 4194575.30,	7.80,	7.80,	0.00) DC
4TH HIGHEST VALUE IS	5.20086 AT (655476.78, 4194575.30,	8.38,	8.38,	0.00) DC

5TH HIGHEST VALUE IS 4.40512 AT (655176.78, 4194575.30, 8.02, 8.02, 0.00) DC
6TH HIGHEST VALUE IS 4.37545 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
7TH HIGHEST VALUE IS 4.22688 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
8TH HIGHEST VALUE IS 3.29462 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
9TH HIGHEST VALUE IS 3.26107 AT (655776.78, 4194575.30, 8.28, 8.28, 0.00) DC
10TH HIGHEST VALUE IS 3.21293 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC

STCK6 1ST HIGHEST VALUE IS 18.49324 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC
2ND HIGHEST VALUE IS 8.24544 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
3RD HIGHEST VALUE IS 8.02359 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC
4TH HIGHEST VALUE IS 5.50424 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
5TH HIGHEST VALUE IS 5.24544 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
6TH HIGHEST VALUE IS 4.46919 AT (655176.78, 4193975.30, 7.42, 7.42, 0.00) DC
7TH HIGHEST VALUE IS 3.67919 AT (654876.78, 4194575.30, 7.80, 7.80, 0.00) DC
8TH HIGHEST VALUE IS 3.64261 AT (654876.78, 4194275.30, 7.52, 7.52, 0.00) DC
9TH HIGHEST VALUE IS 3.00667 AT (655176.78, 4194575.30, 8.02, 8.02, 0.00) DC
10TH HIGHEST VALUE IS 2.92046 AT (655476.78, 4193675.30, 7.19, 7.19, 0.00) DC

STCK7 1ST HIGHEST VALUE IS 11.54005 AT (655776.78, 4194575.30, 8.28, 8.28, 0.00) DC
2ND HIGHEST VALUE IS 7.98588 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
3RD HIGHEST VALUE IS 5.15760 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC
4TH HIGHEST VALUE IS 4.45105 AT (656076.78, 4194275.30, 8.85, 8.85, 0.00) DC
5TH HIGHEST VALUE IS 4.42567 AT (656076.78, 4194575.30, 8.25, 8.25, 0.00) DC
6TH HIGHEST VALUE IS 4.22448 AT (655176.78, 4194575.30, 8.02, 8.02, 0.00) DC
7TH HIGHEST VALUE IS 4.19140 AT (655176.78, 4194875.30, 8.10, 8.10, 0.00) DC
8TH HIGHEST VALUE IS 3.09051 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
9TH HIGHEST VALUE IS 2.74410 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
10TH HIGHEST VALUE IS 2.64287 AT (654876.78, 4194575.30, 7.80, 7.80, 0.00) DC

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

NETWORK
GROUP ID AVERAGE CONC RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE
GRID-ID

STCK8 1ST HIGHEST VALUE IS 23.53470 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
2ND HIGHEST VALUE IS 7.46920 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
3RD HIGHEST VALUE IS 6.06521 AT (656076.78, 4194275.30, 8.85, 8.85, 0.00) DC
4TH HIGHEST VALUE IS 5.70532 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC
5TH HIGHEST VALUE IS 5.31063 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
6TH HIGHEST VALUE IS 4.13106 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
7TH HIGHEST VALUE IS 3.72678 AT (655476.78, 4194575.30, 8.38, 8.38, 0.00) DC
8TH HIGHEST VALUE IS 3.55561 AT (655176.78, 4194575.30, 8.02, 8.02, 0.00) DC
9TH HIGHEST VALUE IS 3.31352 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC
10TH HIGHEST VALUE IS 3.00728 AT (656376.78, 4193975.30, 9.55, 9.55, 0.00) DC

STCK9 1ST HIGHEST VALUE IS 16.44802 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
2ND HIGHEST VALUE IS 9.03171 AT (656376.78, 4193975.30, 9.55, 9.55, 0.00) DC
3RD HIGHEST VALUE IS 6.44997 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
4TH HIGHEST VALUE IS 5.02232 AT (656376.78, 4194275.30, 9.45, 9.45, 0.00) DC
5TH HIGHEST VALUE IS 4.13679 AT (656376.78, 4193675.30, 9.38, 9.38, 0.00) DC
6TH HIGHEST VALUE IS 4.13669 AT (656076.78, 4194275.30, 8.85, 8.85, 0.00) DC
7TH HIGHEST VALUE IS 3.99978 AT (656676.78, 4193975.30, 9.29, 9.29, 0.00) DC
8TH HIGHEST VALUE IS 3.48581 AT (656076.78, 4193675.30, 8.79, 8.79, 0.00) DC
9TH HIGHEST VALUE IS 3.12474 AT (656676.78, 4193675.30, 9.14, 9.14, 0.00) DC
10TH HIGHEST VALUE IS 3.06523 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID		DATE		AVERAGE CONC		NETWORK	
ZFLAG)	OF TYPE	GRID-ID	(YYMMDDHH)	RECEPTOR	(XR, YR, ZELEV, ZHILL,		

SLINE1	HIGH	1ST HIGH VALUE IS	674.90963	ON 17011505: AT (	655176.78, 4193975.30,	7.42,	7.42,
0.00)	DC						
SLINE10	HIGH	1ST HIGH VALUE IS	1905.57667	ON 17122609: AT (	655476.78, 4193975.30,	8.08,	8.08,
0.00)	DC						
SLINE11	HIGH	1ST HIGH VALUE IS	6964.76328	ON 17120206: AT (	655176.78, 4193975.30,	7.42,	7.42,
0.00)	DC						
SLINE12	HIGH	1ST HIGH VALUE IS	957.78603	ON 17011509: AT (	654276.78, 4193975.30,	7.53,	7.53,
0.00)	DC						
SLINE13	HIGH	1ST HIGH VALUE IS	906.15354	ON 17011609: AT (	653976.78, 4193975.30,	7.18,	7.18,
0.00)	DC						
SLINE14	HIGH	1ST HIGH VALUE IS	981.89982	ON 14021408: AT (	653676.78, 4193375.30,	7.17,	7.17,
0.00)	DC						
SLINE2	HIGH	1ST HIGH VALUE IS	1085.20363	ON 17012717: AT (	654576.78, 4194275.30,	7.58,	7.58,
0.00)	DC						
SLINE3	HIGH	1ST HIGH VALUE IS	881.38216	ON 17122909: AT (	654876.78, 4194275.30,	7.52,	7.52,
0.00)	DC						

SLINE4	HIGH	1ST HIGH VALUE IS	675.76308	ON 17012908: AT (	655476.78,	4193975.30,	8.08,	8.08,
		0.00)	DC					
SLINE5	HIGH	1ST HIGH VALUE IS	1148.93361	ON 17120219: AT (	655476.78,	4194575.30,	8.38,	8.38,
		0.00)	DC					
SLINE6	HIGH	1ST HIGH VALUE IS	1126.71503	ON 17012903: AT (	656076.78,	4193975.30,	9.09,	9.09,
		0.00)	DC					
SLINE7	HIGH	1ST HIGH VALUE IS	1613.95212	ON 17122318: AT (	656376.78,	4193975.30,	9.55,	9.55,
		0.00)	DC					
SLINE8	HIGH	1ST HIGH VALUE IS	1618.72679	ON 17122609: AT (	656076.78,	4193975.30,	9.09,	9.09,
		0.00)	DC					
SLINE9	HIGH	1ST HIGH VALUE IS	1882.39180	ON 17122609: AT (	655776.78,	4193975.30,	8.61,	8.61,
		0.00)	DC					
STCK1	HIGH	1ST HIGH VALUE IS	953.98009	ON 17082819: AT (	654576.78,	4194275.30,	7.58,	7.58,
		0.00)	DC					
STCK10	HIGH	1ST HIGH VALUE IS	378.24587	ON 17022519: AT (	656376.78,	4193975.30,	9.55,	9.55,
		0.00)	DC					
STCK11	HIGH	1ST HIGH VALUE IS	530.50676	ON 17021620: AT (	656076.78,	4193975.30,	9.09,	9.09,
		0.00)	DC					
STCK12	HIGH	1ST HIGH VALUE IS	635.48430	ON 16121420: AT (	655776.78,	4193975.30,	8.61,	8.61,
		0.00)	DC					
STCK13	HIGH	1ST HIGH VALUE IS	572.91928	ON 15050820: AT (	655476.78,	4193975.30,	8.08,	8.08,
		0.00)	DC					
STCK14	HIGH	1ST HIGH VALUE IS	865.76479	ON 16031118: AT (	655176.78,	4193975.30,	7.42,	7.42,
		0.00)	DC					
STCK15	HIGH	1ST HIGH VALUE IS	1187.34378	ON 14052219: AT (	654576.78,	4194275.30,	7.58,	7.58,
		0.00)	DC					
STCK16	HIGH	1ST HIGH VALUE IS	1206.52678	ON 14120909: AT (	654576.78,	4194275.30,	7.58,	7.58,
		0.00)	DC					
STCK17	HIGH	1ST HIGH VALUE IS	845.62890	ON 16041107: AT (	654876.78,	4194275.30,	7.52,	7.52,
		0.00)	DC					
STCK18	HIGH	1ST HIGH VALUE IS	1290.63021	ON 17090324: AT (	654876.78,	4194275.30,	7.52,	7.52,
		0.00)	DC					
STCK19	HIGH	1ST HIGH VALUE IS	978.98506	ON 14010309: AT (	655176.78,	4194575.30,	8.02,	8.02,
		0.00)	DC					

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID		DATE		AVERAGE CONC		RECEPTOR	
ZFLAG)	OF TYPE	GRID-ID	(YYMMDDHH)	(XR, YR, ZELEV, ZHILL,			

STCK2	HIGH	1ST HIGH VALUE IS	137.58710	ON 14110809: AT (	654576.78, 4194275.30,	7.58,	7.58,
0.00)	DC						
STCK20	HIGH	1ST HIGH VALUE IS	1023.76588	ON 16110208: AT (	655176.78, 4194275.30,	7.82,	7.82,
0.00)	DC						
STCK21	HIGH	1ST HIGH VALUE IS	563.39537	ON 17021904: AT (	655476.78, 4194275.30,	8.27,	8.27,
0.00)	DC						
STCK22	HIGH	1ST HIGH VALUE IS	1165.68876	ON 16020517: AT (	655476.78, 4194275.30,	8.27,	8.27,
0.00)	DC						
STCK23	HIGH	1ST HIGH VALUE IS	833.00533	ON 13022108: AT (	656076.78, 4194275.30,	8.85,	8.85,
0.00)	DC						
STCK24	HIGH	1ST HIGH VALUE IS	861.62765	ON 16041107: AT (	656376.78, 4193975.30,	9.55,	9.55,
0.00)	DC						
STCK25	HIGH	1ST HIGH VALUE IS	1099.22267	ON 13103108: AT (	656076.78, 4193975.30,	9.09,	9.09,
0.00)	DC						
STCK26	HIGH	1ST HIGH VALUE IS	1123.32313	ON 13110108: AT (	655776.78, 4193975.30,	8.61,	8.61,
0.00)	DC						
STCK27	HIGH	1ST HIGH VALUE IS	1133.02300	ON 15010309: AT (	655476.78, 4193975.30,	8.08,	8.08,
0.00)	DC						
STCK28	HIGH	1ST HIGH VALUE IS	1157.38102	ON 17020117: AT (	655176.78, 4193975.30,	7.42,	7.42,
0.00)	DC						
STCK3	HIGH	1ST HIGH VALUE IS	409.06152	ON 14021020: AT (	654876.78, 4194275.30,	7.52,	7.52,
0.00)	DC						
STCK4	HIGH	1ST HIGH VALUE IS	979.94321	ON 14120216: AT (	654876.78, 4194275.30,	7.52,	7.52,
0.00)	DC						
STCK5	HIGH	1ST HIGH VALUE IS	450.89241	ON 17012101: AT (	655176.78, 4194575.30,	8.02,	8.02,
0.00)	DC						
STCK6	HIGH	1ST HIGH VALUE IS	629.84881	ON 15103023: AT (	655176.78, 4194275.30,	7.82,	7.82,
0.00)	DC						
STCK7	HIGH	1ST HIGH VALUE IS	257.80232	ON 17012309: AT (	655176.78, 4194575.30,	8.02,	8.02,

0.00) DC

STCK8 HIGH 1ST HIGH VALUE IS 512.29854 ON 14020602: AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC

STCK9 HIGH 1ST HIGH VALUE IS 392.85524 ON 17010120: AT (656076.78, 4194275.30, 8.85, 8.85, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 39 Warning Message(s)
A Total of 971 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 442 Calm Hours Identified

A Total of 529 Missing Hours Identified (1.21 Percent)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
SO W320 7476 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 7478 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 7480 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 7482 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 7484 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 7486 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 7488 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 7490 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 7492 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 7494 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 7496 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 7498 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 7500 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
SO W320 7502 PPARM: Input Parameter May Be Out-of-Range for Parameter VS
ME W186 9189 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 9189 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

OU W565	9270	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9271	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9272	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9273	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9274	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9275	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9276	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9277	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9278	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9279	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9280	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9281	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9282	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
OU W565	9283	PERPLT: Possible Conflict With Dynamically Allocated FUNIT	PLOTFILE
MX W420	34276	METQA: Wind Speed Out-of-Range. KURDAT =	16112904
MX W420	34282	METQA: Wind Speed Out-of-Range. KURDAT =	16112910
MX W420	34288	METQA: Wind Speed Out-of-Range. KURDAT =	16112916
MX W420	34294	METQA: Wind Speed Out-of-Range. KURDAT =	16112922
MX W420	34300	METQA: Wind Speed Out-of-Range. KURDAT =	16113004
MX W420	40768	METQA: Wind Speed Out-of-Range. KURDAT =	17082616
MX W420	40792	METQA: Wind Speed Out-of-Range. KURDAT =	17082716
MX W420	40798	METQA: Wind Speed Out-of-Range. KURDAT =	17082722
MX W420	40804	METQA: Wind Speed Out-of-Range. KURDAT =	17082804

*** AERMOD Finishes Successfully ***

** Lakes Environmental AERMOD MPI
**

**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 12/10/2024
** File: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_FEIR &
RDEIR_construction\SSCC.ADI
**

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**

** AERMOD Control Pathway

**
**

CO STARTING
TITLEONE C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S
MODELOPT DFAULT CONC
AVERTIME 1 PERIOD
POLLUTID OTHER
RUNORNOT RUN
ERRORFIL SSCC.err

CO FINISHED
**

** AERMOD Source Pathway

**
**

SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
LOCATION VOL1 VOLUME 654219.330 4194227.220 7.510
** DESCRSRC Construction Volume 1
LOCATION VOL2 VOLUME 654168.220 4193904.770 7.010
** DESCRSRC Construction Volume 2
LOCATION VOL3 VOLUME 654717.400 4194145.440 7.290
** DESCRSRC Construction Volume 3
LOCATION VOL4 VOLUME 655348.360 4194387.980 8.170
** DESCRSRC Construction Volume 4
LOCATION VOL5 VOLUME 655244.290 4193901.050 7.350
** DESCRSRC Construction Volume 5
LOCATION VOL6 VOLUME 655792.540 4194322.930 8.720
** DESCRSRC Construction Volume 6
LOCATION VOL7 VOLUME 655849.230 4193974.460 8.720
** DESCRSRC Construction Volume 7
LOCATION VOL8 VOLUME 656268.320 4194008.840 9.390
** DESCRSRC Construction Volume 8
** Source Parameters **
SRCPARAM VOL1 1.0 2.438 74.340 2.438
SRCPARAM VOL2 1.0 2.438 72.179 2.438

SRCPARAM VOL3	1.0	2.438	153.002	2.438
SRCPARAM VOL4	1.0	2.438	137.009	2.438
SRCPARAM VOL5	1.0	2.438	88.602	2.438
SRCPARAM VOL6	1.0	2.438	66.993	2.438
SRCPARAM VOL7	1.0	2.438	94.221	2.438
SRCPARAM VOL8	1.0	2.438	98.112	8.000
SRCGROUP VOL1	VOL1			
SRCGROUP VOL2	VOL2			
SRCGROUP VOL3	VOL3			
SRCGROUP VOL4	VOL4			
SRCGROUP VOL5	VOL5			
SRCGROUP VOL6	VOL6			
SRCGROUP VOL7	VOL7			
SRCGROUP VOL8	VOL8			

SO FINISHED

**

** AERMOD Receptor Pathway

**
**

RE STARTING
INCLUDED SSCC.rou
RE FINISHED
**

** AERMOD Meteorology Pathway

**
**

ME STARTING
SURFFILE AERMET\Stockton_2013-2017.SFC
PROFILE AERMET\Stockton_2013-2017.PFL
SURFDATA 23237 2013 Stockton
UAIRDATA 23230 2013 OAKLAND/WSO_AP
PROFBASE 8.0 METERS
ME FINISHED

**

** AERMOD Output Pathway

**
**

OU STARTING
RECTABLE ALLAVE 1ST
RECTABLE 1 1ST
** Auto-Generated Plotfiles
PLOTFILE 1 VOL1 1ST SSCC.AD\01H1G001.PLT 31
PLOTFILE 1 VOL2 1ST SSCC.AD\01H1G002.PLT 32
PLOTFILE 1 VOL3 1ST SSCC.AD\01H1G003.PLT 33
PLOTFILE 1 VOL4 1ST SSCC.AD\01H1G004.PLT 34
PLOTFILE 1 VOL5 1ST SSCC.AD\01H1G005.PLT 35
PLOTFILE 1 VOL6 1ST SSCC.AD\01H1G006.PLT 36
PLOTFILE 1 VOL7 1ST SSCC.AD\01H1G007.PLT 37
PLOTFILE 1 VOL8 1ST SSCC.AD\01H1G008.PLT 38

PLOTFILE PERIOD VOL1 SSCC.AD\PE00G001.PLT 39
PLOTFILE PERIOD VOL2 SSCC.AD\PE00G002.PLT 40
PLOTFILE PERIOD VOL3 SSCC.AD\PE00G003.PLT 41
PLOTFILE PERIOD VOL4 SSCC.AD\PE00G004.PLT 42
PLOTFILE PERIOD VOL5 SSCC.AD\PE00G005.PLT 43
PLOTFILE PERIOD VOL6 SSCC.AD\PE00G006.PLT 44
PLOTFILE PERIOD VOL7 SSCC.AD\PE00G007.PLT 45
PLOTFILE PERIOD VOL8 SSCC.AD\PE00G008.PLT 46
SUMMFILE SSCC.sum
OU FINISHED

*** Message Summary For AERMOD Model Setup ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 2 Warning Message(s)
A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
ME W186 90 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 90 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

*** SETUP Finishes Successfully ***

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 12/10/24
*** AERMET - VERSION 18081 *** *** 10:09:04

PAGE 1
*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses RURAL Dispersion Only.

**Model Uses Regulatory DEFAULT Options:
1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.

3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

****Other Options Specified:**

ADJ_U* - Use ADJ_U* option for SBL in AERMET
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions

****Model Assumes No FLAGPOLE Receptor Heights.**

****The User Specified a Pollutant Type of: OTHER**

****Model Calculates 1 Short Term Average(s) of: 1-HR
and Calculates PERIOD Averages**

****This Run Includes: 8 Source(s); 8 Source Group(s); and 148 Receptor(s)**

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 8 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

****Model Set To Continue RUNning After the Setup Testing.**

****The AERMET Input Meteorological Data Version Date: 18081**

****Output Options Selected:**

Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

****NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours**

****Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 8.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3**

****Approximate Storage Requirements of Model = 3.6 MB of RAM.**

****Input Runstream File: aermod.inp**

****Output Print File: aermod.out**

****Detailed Error/Message File: SSCC.err**

****File for Summary of Results: SSCC.sum**

***** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE		
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY

VOL1	0	0.10000E+01	654219.3	4194227.2	7.5	2.44	74.34	2.44	NO
VOL2	0	0.10000E+01	654168.2	4193904.8	7.0	2.44	72.18	2.44	NO
VOL3	0	0.10000E+01	654717.4	4194145.4	7.3	2.44	153.00	2.44	NO
VOL4	0	0.10000E+01	655348.4	4194388.0	8.2	2.44	137.01	2.44	NO
VOL5	0	0.10000E+01	655244.3	4193901.0	7.3	2.44	88.60	2.44	NO
VOL6	0	0.10000E+01	655792.5	4194322.9	8.7	2.44	66.99	2.44	NO
VOL7	0	0.10000E+01	655849.2	4193974.5	8.7	2.44	94.22	2.44	NO
VOL8	0	0.10000E+01	656268.3	4194008.8	9.4	2.44	98.11	8.00	NO

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
-----	-----

VOL1	VOL1	,
VOL2	VOL2	,
VOL3	VOL3	,
VOL4	VOL4	,
VOL5	VOL5	,
VOL6	VOL6	,
VOL7	VOL7	,
VOL8	VOL8	,

*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 12/10/24

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***

(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(656165.7, 4192787.8, 8.1, 8.1, 0.0);	(656126.4, 4192765.0, 8.0, 8.0, 0.0);
(656103.7, 4192731.9, 8.1, 8.1, 0.0);	(656093.3, 4192690.5, 8.2, 8.2, 0.0);
(656217.4, 4192771.2, 8.2, 8.2, 0.0);	(656279.5, 4192760.8, 8.3, 8.3, 0.0);
(656341.6, 4192727.8, 8.6, 8.6, 0.0);	(656366.4, 4192707.1, 8.7, 8.7, 0.0);
(653815.1, 4193437.5, 7.1, 7.1, 0.0);	(653776.4, 4193429.8, 6.8, 6.8, 0.0);
(653798.3, 4193413.0, 7.0, 7.0, 0.0);	(653708.2, 4193118.2, 7.9, 7.9, 0.0);
(653730.1, 4193102.7, 8.0, 8.0, 0.0);	(653753.2, 4193086.0, 8.0, 8.0, 0.0);
(653800.9, 4193053.8, 8.2, 8.2, 0.0);	(653882.0, 4192964.9, 8.3, 8.3, 0.0);
(653907.8, 4192962.3, 8.3, 8.3, 0.0);	(653945.1, 4192954.6, 8.2, 8.2, 0.0);
(654067.5, 4192886.4, 8.1, 8.1, 0.0);	(654108.7, 4192861.9, 8.1, 8.1, 0.0);
(654140.9, 4192841.3, 8.1, 8.1, 0.0);	(654376.5, 4192702.2, 8.2, 8.2, 0.0);
(654399.7, 4192673.9, 8.2, 8.2, 0.0);	(654024.7, 4193417.9, 7.5, 7.5, 0.0);
(653831.8, 4193501.5, 7.5, 7.5, 0.0);	(653915.6, 4193528.1, 7.7, 7.7, 0.0);
(653813.6, 4193608.3, 7.4, 7.4, 0.0);	(653676.8, 4192475.3, 8.1, 8.1, 0.0);
(653976.8, 4192475.3, 8.4, 8.4, 0.0);	(654276.8, 4192475.3, 8.5, 8.5, 0.0);
(654576.8, 4192475.3, 8.4, 8.4, 0.0);	(654876.8, 4192475.3, 8.5, 8.5, 0.0);
(655176.8, 4192475.3, 8.3, 8.3, 0.0);	(655476.8, 4192475.3, 8.3, 8.3, 0.0);
(655776.8, 4192475.3, 8.3, 8.3, 0.0);	(656076.8, 4192475.3, 8.4, 8.4, 0.0);
(656376.8, 4192475.3, 8.8, 8.8, 0.0);	(656676.8, 4192475.3, 9.8, 9.8, 0.0);
(653676.8, 4192775.3, 8.1, 8.1, 0.0);	(653976.8, 4192775.3, 8.3, 8.3, 0.0);
(654276.8, 4192775.3, 8.1, 8.1, 0.0);	(654576.8, 4192775.3, 8.1, 8.1, 0.0);
(654876.8, 4192775.3, 8.2, 8.2, 0.0);	(655176.8, 4192775.3, 8.2, 8.2, 0.0);
(655476.8, 4192775.3, 8.1, 8.1, 0.0);	(655776.8, 4192775.3, 7.9, 7.9, 0.0);
(656076.8, 4192775.3, 7.9, 7.9, 0.0);	(656376.8, 4192775.3, 8.7, 8.7, 0.0);
(656676.8, 4192775.3, 9.7, 9.7, 0.0);	(653676.8, 4193075.3, 7.9, 7.9, 0.0);
(653976.8, 4193075.3, 8.0, 8.0, 0.0);	(654276.8, 4193075.3, 7.8, 7.8, 0.0);
(654576.8, 4193075.3, 8.0, 8.0, 0.0);	(654876.8, 4193075.3, 8.3, 8.3, 0.0);
(655176.8, 4193075.3, 8.3, 8.3, 0.0);	(655476.8, 4193075.3, 8.2, 8.2, 0.0);
(655776.8, 4193075.3, 8.1, 8.1, 0.0);	(656076.8, 4193075.3, 7.4, 7.4, 0.0);
(656376.8, 4193075.3, 7.5, 7.5, 0.0);	(656676.8, 4193075.3, 8.7, 8.7, 0.0);
(653676.8, 4193375.3, 7.2, 7.2, 0.0);	(653976.8, 4193375.3, 7.6, 7.6, 0.0);
(654276.8, 4193375.3, 7.5, 7.5, 0.0);	(654576.8, 4193375.3, 7.9, 7.9, 0.0);
(654876.8, 4193375.3, 8.3, 8.3, 0.0);	(655176.8, 4193375.3, 8.1, 8.1, 0.0);
(655476.8, 4193375.3, 7.4, 7.4, 0.0);	(655776.8, 4193375.3, 8.5, 8.5, 0.0);
(656076.8, 4193375.3, 8.3, 8.3, 0.0);	(656376.8, 4193375.3, 8.5, 8.5, 0.0);
(656676.8, 4193375.3, 9.1, 9.1, 0.0);	(653676.8, 4193675.3, 6.7, 6.7, 0.0);
(653976.8, 4193675.3, 7.5, 7.5, 0.0);	(654276.8, 4193675.3, 6.9, 6.9, 0.0);
(654576.8, 4193675.3, 7.9, 7.9, 0.0);	(654876.8, 4193675.3, 6.8, 6.8, 0.0);
(655176.8, 4193675.3, 6.8, 6.8, 0.0);	(655476.8, 4193675.3, 7.2, 7.2, 0.0);
(655776.8, 4193675.3, 8.5, 8.5, 0.0);	(656076.8, 4193675.3, 8.8, 8.8, 0.0);
(656376.8, 4193675.3, 9.4, 9.4, 0.0);	(656676.8, 4193675.3, 9.1, 9.1, 0.0);
(653676.8, 4193975.3, 6.7, 6.7, 0.0);	(653976.8, 4193975.3, 7.2, 7.2, 0.0);
(654276.8, 4193975.3, 7.5, 7.5, 0.0);	(654576.8, 4193975.3, 6.9, 6.9, 0.0);
(654876.8, 4193975.3, 7.1, 7.1, 0.0);	(655176.8, 4193975.3, 7.4, 7.4, 0.0);
(655476.8, 4193975.3, 8.1, 8.1, 0.0);	(655776.8, 4193975.3, 8.6, 8.6, 0.0);

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*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***

(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(656076.8, 4193975.3, 9.1, 9.1, 0.0);	(656376.8, 4193975.3, 9.6, 9.6, 0.0);
(656676.8, 4193975.3, 9.3, 9.3, 0.0);	(653676.8, 4194275.3, 6.8, 6.8, 0.0);
(653976.8, 4194275.3, 7.4, 7.4, 0.0);	(654276.8, 4194275.3, 7.5, 7.5, 0.0);
(654576.8, 4194275.3, 7.6, 7.6, 0.0);	(654876.8, 4194275.3, 7.5, 7.5, 0.0);
(655176.8, 4194275.3, 7.8, 7.8, 0.0);	(655476.8, 4194275.3, 8.3, 8.3, 0.0);
(655776.8, 4194275.3, 8.7, 8.7, 0.0);	(656076.8, 4194275.3, 8.9, 8.9, 0.0);
(656376.8, 4194275.3, 9.5, 9.5, 0.0);	(656676.8, 4194275.3, 9.5, 9.5, 0.0);
(653676.8, 4194575.3, 6.6, 6.6, 0.0);	(653976.8, 4194575.3, 7.0, 7.0, 0.0);
(654276.8, 4194575.3, 7.4, 7.4, 0.0);	(654576.8, 4194575.3, 7.6, 7.6, 0.0);
(654876.8, 4194575.3, 7.8, 7.8, 0.0);	(655176.8, 4194575.3, 8.0, 8.0, 0.0);
(655476.8, 4194575.3, 8.4, 8.4, 0.0);	(655776.8, 4194575.3, 8.3, 8.3, 0.0);
(656076.8, 4194575.3, 8.2, 8.2, 0.0);	(656376.8, 4194575.3, 9.1, 9.1, 0.0);
(656676.8, 4194575.3, 9.6, 9.6, 0.0);	(653676.8, 4194875.3, 5.2, 5.2, 0.0);
(653976.8, 4194875.3, 6.9, 6.9, 0.0);	(654276.8, 4194875.3, 7.3, 7.3, 0.0);
(654576.8, 4194875.3, 7.7, 7.7, 0.0);	(654876.8, 4194875.3, 7.9, 7.9, 0.0);
(655176.8, 4194875.3, 8.1, 8.1, 0.0);	(655476.8, 4194875.3, 8.3, 8.3, 0.0);
(655776.8, 4194875.3, 8.3, 8.3, 0.0);	(656076.8, 4194875.3, 8.2, 8.2, 0.0);
(656376.8, 4194875.3, 8.8, 8.8, 0.0);	(656676.8, 4194875.3, 9.6, 9.6, 0.0);
(653676.8, 4195175.3, 6.7, 6.7, 0.0);	(653976.8, 4195175.3, 7.0, 7.0, 0.0);
(654276.8, 4195175.3, 7.4, 7.4, 0.0);	(654576.8, 4195175.3, 7.8, 7.8, 0.0);
(654876.8, 4195175.3, 8.1, 8.1, 0.0);	(655176.8, 4195175.3, 8.2, 8.2, 0.0);
(655476.8, 4195175.3, 8.2, 8.2, 0.0);	(655776.8, 4195175.3, 8.3, 8.3, 0.0);
(656076.8, 4195175.3, 8.6, 8.6, 0.0);	(656376.8, 4195175.3, 9.5, 9.5, 0.0);
(656676.8, 4195175.3, 9.6, 9.6, 0.0);	(653676.8, 4195475.3, 6.6, 6.6, 0.0);
(653976.8, 4195475.3, 7.2, 7.2, 0.0);	(654276.8, 4195475.3, 7.6, 7.6, 0.0);
(654576.8, 4195475.3, 7.9, 7.9, 0.0);	(654876.8, 4195475.3, 8.2, 8.2, 0.0);
(655176.8, 4195475.3, 8.3, 8.3, 0.0);	(655476.8, 4195475.3, 8.3, 8.3, 0.0);
(655776.8, 4195475.3, 8.5, 8.5, 0.0);	(656076.8, 4195475.3, 9.0, 9.0, 0.0);
(656376.8, 4195475.3, 9.6, 9.6, 0.0);	(656676.8, 4195475.3, 9.7, 9.7, 0.0);

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*** AERMET - VERSION 18081 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *

LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	-- RECEPTOR LOCATION -- XR (METERS) YR (METERS)	DISTANCE (METERS)
VOL1	654276.8 4194275.3	-84.92
VOL2	654276.8 4193975.3	-25.73
VOL3	654576.8 4193975.3	-108.22
VOL3	654876.8 4193975.3	-95.82
VOL3	654576.8 4194275.3	-137.54
VOL3	654876.8 4194275.3	-123.37
VOL4	655176.8 4194275.3	-89.30
VOL4	655476.8 4194275.3	-123.72

13	01	01	1	02	-14.6	0.158	-9.000	-9.000	-999.	152.	27.6	0.04	2.20	1.00	2.37	77.	10.0	273.8	2.0
13	01	01	1	03	-18.4	0.181	-9.000	-9.000	-999.	185.	36.0	0.06	2.20	1.00	2.52	97.	10.0	273.1	2.0
13	01	01	1	04	-6.7	0.105	-9.000	-9.000	-999.	84.	16.0	0.04	2.20	1.00	1.63	349.	10.0	272.5	2.0
13	01	01	1	05	-20.1	0.193	-9.000	-9.000	-999.	203.	40.9	0.04	2.20	1.00	2.86	356.	10.0	274.2	2.0
13	01	01	1	06	-3.9	0.081	-9.000	-9.000	-999.	64.	12.6	0.04	2.20	1.00	1.23	77.	10.0	273.8	2.0
13	01	01	1	07	-18.3	0.180	-9.000	-9.000	-999.	184.	35.8	0.06	2.20	1.00	2.52	255.	10.0	273.1	2.0
13	01	01	1	08	-26.9	0.259	-9.000	-9.000	-999.	316.	73.8	0.08	2.20	0.73	3.29	287.	10.0	274.2	2.0
13	01	01	1	09	-1.9	0.212	-9.000	-9.000	-999.	236.	461.6	0.05	2.20	0.39	2.81	315.	10.0	275.9	2.0
13	01	01	1	10	61.1	0.155	0.630	0.005	150.	147.	-5.5	0.04	2.20	0.27	1.60	336.	10.0	277.5	2.0
13	01	01	1	11	110.2	0.238	1.137	0.005	488.	279.	-11.2	0.06	2.20	0.23	2.45	228.	10.0	279.9	2.0
13	01	01	1	12	137.1	0.276	1.492	0.008	886.	347.	-14.0	0.08	2.20	0.22	2.69	286.	10.0	280.4	2.0
13	01	01	1	13	141.1	0.271	1.531	0.007	929.	339.	-12.9	0.05	2.20	0.21	2.88	325.	10.0	282.5	2.0
13	01	01	1	14	121.3	0.232	1.475	0.006	965.	269.	-9.4	0.04	2.20	0.22	2.57	356.	10.0	283.8	2.0
13	01	01	1	15	78.7	0.218	1.287	0.005	988.	244.	-12.0	0.04	2.20	0.26	2.47	357.	10.0	284.2	2.0
13	01	01	1	16	17.6	0.265	0.783	0.005	993.	327.	-96.0	0.03	2.20	0.35	3.59	2.	10.0	284.2	2.0
13	01	01	1	17	-11.2	0.143	-9.000	-9.000	-999.	139.	24.1	0.04	2.20	0.60	2.16	346.	10.0	282.5	2.0
13	01	01	1	18	-8.7	0.125	-9.000	-9.000	-999.	107.	20.6	0.08	2.20	1.00	1.67	273.	10.0	279.2	2.0
13	01	01	1	19	-13.3	0.154	-9.000	-9.000	-999.	145.	26.0	0.06	2.20	1.00	2.15	238.	10.0	278.1	2.0
13	01	01	1	20	-10.2	0.134	-9.000	-9.000	-999.	117.	21.4	0.06	2.20	1.00	1.89	230.	10.0	275.9	2.0
13	01	01	1	21	-12.5	0.148	-9.000	-9.000	-999.	137.	24.2	0.05	2.20	1.00	2.11	300.	10.0	276.4	2.0
13	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.05	2.20	1.00	0.00	0.	10.0	275.9	2.0
13	01	01	1	23	-24.0	0.230	-9.000	-9.000	-999.	264.	57.9	0.04	2.20	1.00	3.36	80.	10.0	274.2	2.0
13	01	01	1	24	-16.1	0.169	-9.000	-9.000	-999.	167.	31.3	0.06	2.20	1.00	2.36	100.	10.0	274.2	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB	TMP	sigmaA	sigmaW	sigmaV
13	01	01	01	10.0	1	149.	2.78	273.8	99.0	-99.00	-99.00	

F indicates top of profile (=1) or below (=0)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE

GROUP: VOL1 ***

INCLUDING SOURCE(S): VOL1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.57768	656126.40	4192764.99	0.58068
656103.65	4192731.89	0.57553	656093.30	4192690.51	0.56431
656217.44	4192771.20	0.55926	656279.50	4192760.85	0.54088
656341.57	4192727.75	0.51752	656366.40	4192707.06	0.50680
653815.06	4193437.51	1.81323	653776.43	4193429.79	1.69642
653798.32	4193413.05	1.71204	653708.18	4193118.16	1.09066
653730.07	4193102.71	1.09755	653753.25	4193085.97	1.10230
653800.90	4193053.77	1.10626	653882.02	4192964.92	1.04010
653907.78	4192962.34	1.04500	653945.12	4192954.62	1.04296

654067.45	4192886.37	0.95310	654108.66	4192861.90	0.91672
654140.85	4192841.30	0.88762	654376.51	4192702.22	0.77687
654399.69	4192673.89	0.75945	654024.74	4193417.88	2.18524
653831.84	4193501.47	2.04068	653915.64	4193528.15	2.41892
653813.62	4193608.32	2.33938	653676.78	4192475.30	0.59402
653976.78	4192475.30	0.61591	654276.78	4192475.30	0.59312
654576.78	4192475.30	0.65211	654876.78	4192475.30	0.67340
655176.78	4192475.30	0.63346	655476.78	4192475.30	0.56794
655776.78	4192475.30	0.54093	656076.78	4192475.30	0.49980
656376.78	4192475.30	0.45030	656676.78	4192475.30	0.40296
653676.78	4192775.30	0.76807	653976.78	4192775.30	0.84212
654276.78	4192775.30	0.81810	654576.78	4192775.30	0.90256
654876.78	4192775.30	0.91117	655176.78	4192775.30	0.80414
655476.78	4192775.30	0.74640	655776.78	4192775.30	0.67883
656076.78	4192775.30	0.59717	656376.78	4192775.30	0.52108
656676.78	4192775.30	0.45397	653676.78	4193075.30	1.01209
653976.78	4193075.30	1.23041	654276.78	4193075.30	1.22036
654576.78	4193075.30	1.34966	654876.78	4193075.30	1.26347
655176.78	4193075.30	1.11860	655476.78	4193075.30	0.99154
655776.78	4193075.30	0.83998	656076.78	4193075.30	0.70448
656376.78	4193075.30	0.59031	656676.78	4193075.30	0.49699
653676.78	4193375.30	1.38486	653976.78	4193375.30	1.96869
654276.78	4193375.30	2.06936	654576.78	4193375.30	2.24682
654876.78	4193375.30	1.92939	655176.78	4193375.30	1.62707
655476.78	4193375.30	1.28831	655776.78	4193375.30	1.00803
656076.78	4193375.30	0.79571	656376.78	4193375.30	0.63857
656676.78	4193375.30	0.52247	653676.78	4193675.30	2.09944
653976.78	4193675.30	3.57401	654276.78	4193675.30	4.49661
654576.78	4193675.30	4.40457	654876.78	4193675.30	3.30062
655176.78	4193675.30	2.25347	655476.78	4193675.30	1.55416
655776.78	4193675.30	1.12229	656076.78	4193675.30	0.84983

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

GROUP: VOL1 *** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE ***

INCLUDING SOURCE(S): VOL1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	0.66990	656676.78	4193675.30	0.54495
653676.78	4193975.30	3.72805	653976.78	4193975.30	8.56236
654276.78	4193975.30	20.35625	654576.78	4193975.30	11.10116
654876.78	4193975.30	4.90264	655176.78	4193975.30	2.66522
655476.78	4193975.30	1.69273	655776.78	4193975.30	1.18365
656076.78	4193975.30	0.88131	656376.78	4193975.30	0.68567
656676.78	4193975.30	0.55131	653676.78	4194275.30	5.59383
653976.78	4194275.30	21.49151	654276.78	4194275.30	0.00000

654576.78	4194275.30	12.82949	654876.78	4194275.30	4.71237
655176.78	4194275.30	2.52699	655476.78	4194275.30	1.60533
655776.78	4194275.30	1.12386	656076.78	4194275.30	0.83823
656376.78	4194275.30	0.65339	656676.78	4194275.30	0.52642
653676.78	4194575.30	3.93198	653976.78	4194575.30	6.90676
654276.78	4194575.30	5.85184	654576.78	4194575.30	3.76412
654876.78	4194575.30	2.47013	655176.78	4194575.30	1.70373
655476.78	4194575.30	1.22608	655776.78	4194575.30	0.92696
656076.78	4194575.30	0.72741	656376.78	4194575.30	0.58690
656676.78	4194575.30	0.48439	653676.78	4194875.30	2.30232
653976.78	4194875.30	2.33954	654276.78	4194875.30	1.99480
654576.78	4194875.30	1.65711	654876.78	4194875.30	1.28863
655176.78	4194875.30	1.01985	655476.78	4194875.30	0.83860
655776.78	4194875.30	0.68826	656076.78	4194875.30	0.56659
656376.78	4194875.30	0.47509	656676.78	4194875.30	0.40553
653676.78	4195175.30	1.27743	653976.78	4195175.30	1.15207
654276.78	4195175.30	1.05458	654576.78	4195175.30	0.94824
654876.78	4195175.30	0.80850	655176.78	4195175.30	0.68409
655476.78	4195175.30	0.57708	655776.78	4195175.30	0.50063
656076.78	4195175.30	0.44167	656376.78	4195175.30	0.38574
656676.78	4195175.30	0.33566	653676.78	4195475.30	0.78564
653976.78	4195475.30	0.70124	654276.78	4195475.30	0.66892
654576.78	4195475.30	0.61885	654876.78	4195475.30	0.56102
655176.78	4195475.30	0.48953	655476.78	4195475.30	0.43623
655776.78	4195475.30	0.38125	656076.78	4195475.30	0.33770
656376.78	4195475.30	0.30678	656676.78	4195475.30	0.27945

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE

GROUP: VOL2

INCLUDING SOURCE(S): VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC

656165.71	4192787.75	0.65783	656126.40	4192764.99	0.66721
656103.65	4192731.89	0.66613	656093.30	4192690.51	0.65682
656217.44	4192771.20	0.63341	656279.50	4192760.85	0.60807
656341.57	4192727.75	0.57953	656366.40	4192707.06	0.56723
653815.06	4193437.51	3.42805	653776.43	4193429.79	3.11706
653798.32	4193413.05	3.14756	653708.18	4193118.16	1.67943
653730.07	4193102.71	1.69818	653753.25	4193085.97	1.71592
653800.90	4193053.77	1.74777	653882.02	4192964.92	1.65545
653907.78	4192962.34	1.67437	653945.12	4192954.62	1.68005
654067.45	4192886.37	1.50575	654108.66	4192861.90	1.43711
654140.85	4192841.30	1.38532	654376.51	4192702.22	1.20298
654399.69	4192673.89	1.16485	654024.74	4193417.88	4.94151
653831.84	4193501.47	4.11749	653915.64	4193528.15	5.44686

653813.62	4193608.32	5.24683	653676.78	4192475.30	0.80882
653976.78	4192475.30	0.86053	654276.78	4192475.30	0.85217
654576.78	4192475.30	0.93396	654876.78	4192475.30	0.91817
655176.78	4192475.30	0.80673	655476.78	4192475.30	0.75272
655776.78	4192475.30	0.67512	656076.78	4192475.30	0.59077
656376.78	4192475.30	0.51405	656676.78	4192475.30	0.44665
653676.78	4192775.30	1.08924	653976.78	4192775.30	1.27521
654276.78	4192775.30	1.28522	654576.78	4192775.30	1.40141
654876.78	4192775.30	1.26156	655176.78	4192775.30	1.13093
655476.78	4192775.30	0.98415	655776.78	4192775.30	0.82724
656076.78	4192775.30	0.69064	656376.78	4192775.30	0.57686
656676.78	4192775.30	0.48504	653676.78	4193075.30	1.52195
653976.78	4193075.30	2.10513	654276.78	4193075.30	2.21811
654576.78	4193075.30	2.30276	654876.78	4193075.30	1.95311
655176.78	4193075.30	1.60691	655476.78	4193075.30	1.25585
655776.78	4193075.30	0.97704	656076.78	4193075.30	0.77018
656376.78	4193075.30	0.61858	656676.78	4193075.30	0.50738
653676.78	4193375.30	2.35913	653976.78	4193375.30	4.10054
654276.78	4193375.30	4.98986	654576.78	4193375.30	4.47667
654876.78	4193375.30	3.21352	655176.78	4193375.30	2.14580
655476.78	4193375.30	1.47762	655776.78	4193375.30	1.07195
656076.78	4193375.30	0.81723	656376.78	4193375.30	0.64785
656676.78	4193375.30	0.52891	653676.78	4193675.30	4.40715
653976.78	4193675.30	11.46580	654276.78	4193675.30	23.57633
654576.78	4193675.30	10.03902	654876.78	4193675.30	4.41006
655176.78	4193675.30	2.45589	655476.78	4193675.30	1.58681
655776.78	4193675.30	1.12135	656076.78	4193675.30	0.84112

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE

GROUP: VOL2

INCLUDING SOURCE(S): VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	0.65792	656676.78	4193675.30	0.53126
653676.78	4193975.30	6.56227	653976.78	4193975.30	30.22087
654276.78	4193975.30	0.00000	654576.78	4193975.30	9.72115
654876.78	4193975.30	4.05572	655176.78	4193975.30	2.28273
655476.78	4193975.30	1.48712	655776.78	4193975.30	1.05723
656076.78	4193975.30	0.79656	656376.78	4193975.30	0.62552
656676.78	4193975.30	0.50682	653676.78	4194275.30	4.21155
653976.78	4194275.30	6.38844	654276.78	4194275.30	4.92627
654576.78	4194275.30	3.22532	654876.78	4194275.30	2.19183
655176.78	4194275.30	1.54851	655476.78	4194275.30	1.13410
655776.78	4194275.30	0.86856	656076.78	4194275.30	0.68841
656376.78	4194275.30	0.55979	656676.78	4194275.30	0.46492

653676.78	4194575.30	2.26628	653976.78	4194575.30	2.12560
654276.78	4194575.30	1.83962	654576.78	4194575.30	1.51597
654876.78	4194575.30	1.18910	655176.78	4194575.30	0.94998
655476.78	4194575.30	0.78804	655776.78	4194575.30	0.65105
656076.78	4194575.30	0.53910	656376.78	4194575.30	0.45424
656676.78	4194575.30	0.38947	653676.78	4194875.30	1.21604
653976.78	4194875.30	1.07751	654276.78	4194875.30	1.00006
654576.78	4194875.30	0.89538	654876.78	4194875.30	0.76070
655176.78	4194875.30	0.64834	655476.78	4194875.30	0.54828
655776.78	4194875.30	0.47843	656076.78	4194875.30	0.42359
656376.78	4194875.30	0.37111	656676.78	4194875.30	0.32374
653676.78	4195175.30	0.74942	653976.78	4195175.30	0.67105
654276.78	4195175.30	0.64330	654576.78	4195175.30	0.59363
654876.78	4195175.30	0.53581	655176.78	4195175.30	0.46754
655476.78	4195175.30	0.41917	655776.78	4195175.30	0.36621
656076.78	4195175.30	0.32583	656376.78	4195175.30	0.29671
656676.78	4195175.30	0.27073	653676.78	4195475.30	0.50716
653976.78	4195475.30	0.46837	654276.78	4195475.30	0.45506
654576.78	4195475.30	0.42591	654876.78	4195475.30	0.39914
655176.78	4195475.30	0.36162	655476.78	4195475.30	0.32171
655776.78	4195475.30	0.29825	656076.78	4195475.30	0.26621
656376.78	4195475.30	0.23967	656676.78	4195475.30	0.22097

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE
 GROUP: VOL3 ***
 INCLUDING SOURCE(S): VOL3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.76127	656126.40	4192764.99	0.75901
656103.65	4192731.89	0.74432	656093.30	4192690.51	0.72094
656217.44	4192771.20	0.73549	656279.50	4192760.85	0.71083
656341.57	4192727.75	0.67603	656366.40	4192707.06	0.65947
653815.06	4193437.51	1.14636	653776.43	4193429.79	1.09395
653798.32	4193413.05	1.09635	653708.18	4193118.16	0.74998
653730.07	4193102.71	0.75199	653753.25	4193085.97	0.75422
653800.90	4193053.77	0.76154	653882.02	4192964.92	0.75582
653907.78	4192962.34	0.77136	653945.12	4192954.62	0.79229
654067.45	4192886.37	0.83399	654108.66	4192861.90	0.84524
654140.85	4192841.30	0.85130	654376.51	4192702.22	0.83578
654399.69	4192673.89	0.81431	654024.74	4193417.88	1.39814
653831.84	4193501.47	1.25819	653915.64	4193528.15	1.42720
653813.62	4193608.32	1.40131	653676.78	4192475.30	0.46005
653976.78	4192475.30	0.56512	654276.78	4192475.30	0.65189
654576.78	4192475.30	0.66171	654876.78	4192475.30	0.67585
655176.78	4192475.30	0.72202	655476.78	4192475.30	0.71627

655776.78	4192475.30	0.65331	656076.78	4192475.30	0.60266
656376.78	4192475.30	0.55940	656676.78	4192475.30	0.50547
653676.78	4192775.30	0.55744	653976.78	4192775.30	0.70423
654276.78	4192775.30	0.87139	654576.78	4192775.30	0.92641
654876.78	4192775.30	0.95761	655176.78	4192775.30	1.01271
655476.78	4192775.30	0.95677	655776.78	4192775.30	0.86008
656076.78	4192775.30	0.78007	656376.78	4192775.30	0.68740
656676.78	4192775.30	0.59525	653676.78	4193075.30	0.70492
653976.78	4193075.30	0.90872	654276.78	4193075.30	1.21574
654576.78	4193075.30	1.40673	654876.78	4193075.30	1.48824
655176.78	4193075.30	1.52288	655476.78	4193075.30	1.36329
655776.78	4193075.30	1.18815	656076.78	4193075.30	1.00408
656376.78	4193075.30	0.83019	656676.78	4193075.30	0.68466
653676.78	4193375.30	0.94285	653976.78	4193375.30	1.25496
654276.78	4193375.30	1.81588	654576.78	4193375.30	2.43766
654876.78	4193375.30	2.70898	655176.78	4193375.30	2.57031
655476.78	4193375.30	2.10557	655776.78	4193375.30	1.63583
656076.78	4193375.30	1.24503	656376.78	4193375.30	0.95693
656676.78	4193375.30	0.75139	653676.78	4193675.30	1.28066
653976.78	4193675.30	1.89328	654276.78	4193675.30	3.13349
654576.78	4193675.30	5.83216	654876.78	4193675.30	7.05291
655176.78	4193675.30	5.09527	655476.78	4193675.30	3.22377
655776.78	4193675.30	2.07985	656076.78	4193675.30	1.42637

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: VOL3 ***
INCLUDING SOURCE(S): VOL3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.03851	656676.78	4193675.30	0.79408
653676.78	4193975.30	1.69779	653976.78	4193975.30	2.87113
654276.78	4193975.30	6.53832	654576.78	4193975.30	0.00000
654876.78	4193975.30	0.00000	655176.78	4193975.30	9.38893
655476.78	4193975.30	4.04079	655776.78	4193975.30	2.27908
656076.78	4193975.30	1.48635	656376.78	4193975.30	1.05857
656676.78	4193975.30	0.79935	653676.78	4194275.30	1.88436
653976.78	4194275.30	3.28178	654276.78	4194275.30	7.74540
654576.78	4194275.30	0.00000	654876.78	4194275.30	0.00000
655176.78	4194275.30	7.52180	655476.78	4194275.30	3.36164
655776.78	4194275.30	1.99646	656076.78	4194275.30	1.34490
656376.78	4194275.30	0.97735	656676.78	4194275.30	0.74787
653676.78	4194575.30	1.61082	653976.78	4194575.30	2.50388
654276.78	4194575.30	4.11276	654576.78	4194575.30	5.64908
654876.78	4194575.30	4.69472	655176.78	4194575.30	2.81361
655476.78	4194575.30	1.89570	655776.78	4194575.30	1.36328

656076.78	4194575.30	1.02211	656376.78	4194575.30	0.79335
656676.78	4194575.30	0.63522	653676.78	4194875.30	1.24989
653976.78	4194875.30	1.69265	654276.78	4194875.30	2.01524
654576.78	4194875.30	1.89866	654876.78	4194875.30	1.63238
655176.78	4194875.30	1.34198	655476.78	4194875.30	1.07122
655776.78	4194875.30	0.86804	656076.78	4194875.30	0.71755
656376.78	4194875.30	0.59922	656676.78	4194875.30	0.50333
653676.78	4195175.30	0.96241	653976.78	4195175.30	1.10528
654276.78	4195175.30	1.10210	654576.78	4195175.30	0.99485
654876.78	4195175.30	0.91072	655176.78	4195175.30	0.81235
655476.78	4195175.30	0.69783	655776.78	4195175.30	0.59661
656076.78	4195175.30	0.51312	656376.78	4195175.30	0.44718
656676.78	4195175.30	0.39483	653676.78	4195475.30	0.71215
653976.78	4195475.30	0.72920	654276.78	4195475.30	0.68720
654576.78	4195475.30	0.63080	654876.78	4195475.30	0.59623
655176.78	4195475.30	0.55133	655476.78	4195475.30	0.49703
655776.78	4195475.30	0.43902	656076.78	4195475.30	0.39075
656376.78	4195475.30	0.34660	656676.78	4195475.30	0.30960

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE

GROUP: VOL4

INCLUDING SOURCE(S): VOL4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.75202	656126.40	4192764.99	0.74520
656103.65	4192731.89	0.72708	656093.30	4192690.51	0.70176
656217.44	4192771.20	0.72882	656279.50	4192760.85	0.70660
656341.57	4192727.75	0.67222	656366.40	4192707.06	0.65523
653815.06	4193437.51	0.56047	653776.43	4193429.79	0.54350
653798.32	4193413.05	0.54517	653708.18	4193118.16	0.42365
653730.07	4193102.71	0.42369	653753.25	4193085.97	0.42358
653800.90	4193053.77	0.42401	653882.02	4192964.92	0.41584
653907.78	4192962.34	0.42064	653945.12	4192954.62	0.42679
654067.45	4192886.37	0.43739	654108.66	4192861.90	0.44139
654140.85	4192841.30	0.44440	654376.51	4192702.22	0.47637
654399.69	4192673.89	0.47597	654024.74	4193417.88	0.63302
653831.84	4193501.47	0.59228	653915.64	4193528.15	0.64051
653813.62	4193608.32	0.62672	653676.78	4192475.30	0.28719
653976.78	4192475.30	0.33194	654276.78	4192475.30	0.39326
654576.78	4192475.30	0.47269	654876.78	4192475.30	0.52729
655176.78	4192475.30	0.52646	655476.78	4192475.30	0.52773
655776.78	4192475.30	0.56810	656076.78	4192475.30	0.58169
656376.78	4192475.30	0.55054	656676.78	4192475.30	0.50005
653676.78	4192775.30	0.33605	653976.78	4192775.30	0.38913
654276.78	4192775.30	0.46531	654576.78	4192775.30	0.57564

654876.78	4192775.30	0.68225	655176.78	4192775.30	0.70249
655476.78	4192775.30	0.70970	655776.78	4192775.30	0.76340
656076.78	4192775.30	0.76071	656376.78	4192775.30	0.69013
656676.78	4192775.30	0.63596	653676.78	4193075.30	0.40549
653976.78	4193075.30	0.47106	654276.78	4193075.30	0.56609
654576.78	4193075.30	0.71550	654876.78	4193075.30	0.91084
655176.78	4193075.30	0.99353	655476.78	4193075.30	1.01850
655776.78	4193075.30	1.08764	656076.78	4193075.30	1.02663
656376.78	4193075.30	0.91863	656676.78	4193075.30	0.83012
653676.78	4193375.30	0.49325	653976.78	4193375.30	0.59315
654276.78	4193375.30	0.72201	654576.78	4193375.30	0.92592
654876.78	4193375.30	1.26517	655176.78	4193375.30	1.52900
655476.78	4193375.30	1.61528	655776.78	4193375.30	1.67395
656076.78	4193375.30	1.48818	656376.78	4193375.30	1.28746
656676.78	4193375.30	1.07265	653676.78	4193675.30	0.58838
653976.78	4193675.30	0.74738	654276.78	4193675.30	0.96833
654576.78	4193675.30	1.29368	654876.78	4193675.30	1.87768
655176.78	4193675.30	2.68533	655476.78	4193675.30	3.06177
655776.78	4193675.30	2.92832	656076.78	4193675.30	2.35512

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

GROUP: VOL4 *** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE
 *** INCLUDING SOURCE(S): VOL4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	1.78316	656676.78	4193675.30	1.32653
653676.78	4193975.30	0.70563	653976.78	4193975.30	0.93239
654276.78	4193975.30	1.29988	654576.78	4193975.30	1.94270
654876.78	4193975.30	3.25289	655176.78	4193975.30	6.58738
655476.78	4193975.30	8.98455	655776.78	4193975.30	6.15012
656076.78	4193975.30	3.62973	656376.78	4193975.30	2.24138
656676.78	4193975.30	1.50275	653676.78	4194275.30	0.82678
653976.78	4194275.30	1.13707	654276.78	4194275.30	1.68705
654576.78	4194275.30	2.84287	654876.78	4194275.30	6.27094
655176.78	4194275.30	0.00000	655476.78	4194275.30	0.00000
655776.78	4194275.30	11.02244	656076.78	4194275.30	4.34969
656376.78	4194275.30	2.38553	656676.78	4194275.30	1.53610
653676.78	4194575.30	0.86747	653976.78	4194575.30	1.19272
654276.78	4194575.30	1.77191	654576.78	4194575.30	2.98121
654876.78	4194575.30	6.33777	655176.78	4194575.30	0.00000
655476.78	4194575.30	0.00000	655776.78	4194575.30	6.77229
656076.78	4194575.30	3.24773	656376.78	4194575.30	1.97109
656676.78	4194575.30	1.33998	653676.78	4194875.30	0.78818
653976.78	4194875.30	1.05444	654276.78	4194875.30	1.47769
654576.78	4194875.30	2.21640	654876.78	4194875.30	3.42900

655176.78	4194875.30	4.15694	655476.78	4194875.30	3.41681
655776.78	4194875.30	2.40185	656076.78	4194875.30	1.71627
656376.78	4194875.30	1.27880	656676.78	4194875.30	0.97959
653676.78	4195175.30	0.69097	653976.78	4195175.30	0.87758
654276.78	4195175.30	1.15418	654576.78	4195175.30	1.53011
654876.78	4195175.30	1.76796	655176.78	4195175.30	1.63854
655476.78	4195175.30	1.43820	655776.78	4195175.30	1.21974
656076.78	4195175.30	0.99175	656376.78	4195175.30	0.81235
656676.78	4195175.30	0.67912	653676.78	4195475.30	0.58758
653976.78	4195475.30	0.72538	654276.78	4195475.30	0.89774
654576.78	4195475.30	1.01261	654876.78	4195475.30	1.00095
655176.78	4195475.30	0.90218	655476.78	4195475.30	0.83548
655776.78	4195475.30	0.75606	656076.78	4195475.30	0.65826
656376.78	4195475.30	0.56671	656676.78	4195475.30	0.49060

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: VOL5 ***

INCLUDING SOURCE(S): VOL5 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	1.18943	656126.40	4192764.99	1.17078
656103.65	4192731.89	1.13221	656093.30	4192690.51	1.08152
656217.44	4192771.20	1.14500	656279.50	4192760.85	1.10654
656341.57	4192727.75	1.04165	656366.40	4192707.06	1.00910
653815.06	4193437.51	0.84550	653776.43	4193429.79	0.81118
653798.32	4193413.05	0.81775	653708.18	4193118.16	0.62319
653730.07	4193102.71	0.62781	653753.25	4193085.97	0.63229
653800.90	4193053.77	0.64118	653882.02	4192964.92	0.63384
653907.78	4192962.34	0.64317	653945.12	4192954.62	0.65452
654067.45	4192886.37	0.66506	654108.66	4192861.90	0.66809
654140.85	4192841.30	0.67018	654376.51	4192702.22	0.71335
654399.69	4192673.89	0.71128	654024.74	4193417.88	1.02342
653831.84	4193501.47	0.89989	653915.64	4193528.15	0.99878
653813.62	4193608.32	0.95020	653676.78	4192475.30	0.39271
653976.78	4192475.30	0.45928	654276.78	4192475.30	0.55919
654576.78	4192475.30	0.71313	654876.78	4192475.30	0.85331
655176.78	4192475.30	0.84701	655476.78	4192475.30	0.90119
655776.78	4192475.30	0.94845	656076.78	4192475.30	0.87245
656376.78	4192475.30	0.78748	656676.78	4192475.30	0.72533
653676.78	4192775.30	0.48544	653976.78	4192775.30	0.57160
654276.78	4192775.30	0.69860	654576.78	4192775.30	0.91239
654876.78	4192775.30	1.20978	655176.78	4192775.30	1.26900
655476.78	4192775.30	1.36590	655776.78	4192775.30	1.38132
656076.78	4192775.30	1.20703	656376.78	4192775.30	1.08018
656676.78	4192775.30	0.91953	653676.78	4193075.30	0.59315

653976.78	4193075.30	0.74275	654276.78	4193075.30	0.93205
654576.78	4193075.30	1.23357	654876.78	4193075.30	1.81207
655176.78	4193075.30	2.16053	655476.78	4193075.30	2.36349
655776.78	4193075.30	2.17085	656076.78	4193075.30	1.83360
656376.78	4193075.30	1.46000	656676.78	4193075.30	1.13299
653676.78	4193375.30	0.71651	653976.78	4193375.30	0.94121
654276.78	4193375.30	1.30126	654576.78	4193375.30	1.87057
654876.78	4193375.30	2.99037	655176.78	4193375.30	4.68627
655476.78	4193375.30	5.16642	655776.78	4193375.30	4.01275
656076.78	4193375.30	2.72959	656376.78	4193375.30	1.83115
656676.78	4193375.30	1.28760	653676.78	4193675.30	0.86223
653976.78	4193675.30	1.19287	654276.78	4193675.30	1.78025
654576.78	4193675.30	3.01107	654876.78	4193675.30	6.33987
655176.78	4193675.30	22.77387	655476.78	4193675.30	18.12749
655776.78	4193675.30	6.94658	656076.78	4193675.30	3.38926

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: VOL5 ***
INCLUDING SOURCE(S): VOL5 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	2.02173	656676.78	4193675.30	1.36164
653676.78	4193975.30	0.97762	653976.78	4193975.30	1.38650
654276.78	4193975.30	2.15883	654576.78	4193975.30	3.96107
654876.78	4193975.30	10.54278	655176.78	4193975.30	0.00000
655476.78	4193975.30	24.60904	655776.78	4193975.30	6.36488
656076.78	4193975.30	3.10343	656376.78	4193975.30	1.87867
656676.78	4193975.30	1.27748	653676.78	4194275.30	0.90412
653976.78	4194275.30	1.25025	654276.78	4194275.30	1.84581
654576.78	4194275.30	2.98706	654876.78	4194275.30	5.31432
655176.78	4194275.30	6.04504	655476.78	4194275.30	4.20968
655776.78	4194275.30	2.73302	656076.78	4194275.30	1.88617
656376.78	4194275.30	1.34956	656676.78	4194275.30	1.00779
653676.78	4194575.30	0.79562	653976.78	4194575.30	1.03705
654276.78	4194575.30	1.40594	654576.78	4194575.30	1.98252
654876.78	4194575.30	2.28479	655176.78	4194575.30	1.98314
655476.78	4194575.30	1.71291	655776.78	4194575.30	1.36580
656076.78	4194575.30	1.07850	656376.78	4194575.30	0.87570
656676.78	4194575.30	0.72590	653676.78	4194875.30	0.66794
653976.78	4194875.30	0.83959	654276.78	4194875.30	1.07926
654576.78	4194875.30	1.22081	654876.78	4194875.30	1.17051
655176.78	4194875.30	1.03910	655476.78	4194875.30	0.95533
655776.78	4194875.30	0.83911	656076.78	4194875.30	0.70776
656376.78	4194875.30	0.60363	656676.78	4194875.30	0.51528
653676.78	4195175.30	0.56922	653976.78	4195175.30	0.69435

654276.78	4195175.30	0.77189	654576.78	4195175.30	0.77513
654876.78	4195175.30	0.71190	655176.78	4195175.30	0.65904
655476.78	4195175.30	0.62165	655776.78	4195175.30	0.57134
656076.78	4195175.30	0.50676	656376.78	4195175.30	0.44433
656676.78	4195175.30	0.39611	653676.78	4195475.30	0.49129
653976.78	4195475.30	0.53945	654276.78	4195475.30	0.54723
654576.78	4195475.30	0.53254	654876.78	4195475.30	0.48424
655176.78	4195475.30	0.46342	655476.78	4195475.30	0.44365
655776.78	4195475.30	0.41469	656076.78	4195475.30	0.38210
656376.78	4195475.30	0.34365	656676.78	4195475.30	0.31072

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

GROUP: VOL6 *** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE
 *** INCLUDING SOURCE(S): VOL6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	0.82109	656126.40	4192764.99	0.79463
656103.65	4192731.89	0.76216	656093.30	4192690.51	0.72698
656217.44	4192771.20	0.81204	656279.50	4192760.85	0.80858
656341.57	4192727.75	0.78467	656366.40	4192707.06	0.76907
653815.06	4193437.51	0.43206	653776.43	4193429.79	0.42003
653798.32	4193413.05	0.42279	653708.18	4193118.16	0.35362
653730.07	4193102.71	0.35499	653753.25	4193085.97	0.35615
653800.90	4193053.77	0.35828	653882.02	4192964.92	0.35311
653907.78	4192962.34	0.35652	653945.12	4192954.62	0.36056
654067.45	4192886.37	0.36311	654108.66	4192861.90	0.36365
654140.85	4192841.30	0.36396	654376.51	4192702.22	0.37540
654399.69	4192673.89	0.37399	654024.74	4193417.88	0.49208
653831.84	4193501.47	0.45037	653915.64	4193528.15	0.48229
653813.62	4193608.32	0.47159	653676.78	4192475.30	0.24806
653976.78	4192475.30	0.27745	654276.78	4192475.30	0.31681
654576.78	4192475.30	0.37126	654876.78	4192475.30	0.44874
655176.78	4192475.30	0.53580	655476.78	4192475.30	0.56647
655776.78	4192475.30	0.53853	656076.78	4192475.30	0.58309
656376.78	4192475.30	0.61164	656676.78	4192475.30	0.60622
653676.78	4192775.30	0.29149	653976.78	4192775.30	0.32653
654276.78	4192775.30	0.37253	654576.78	4192775.30	0.43826
654876.78	4192775.30	0.53440	655176.78	4192775.30	0.67538
655476.78	4192775.30	0.75689	655776.78	4192775.30	0.72694
656076.78	4192775.30	0.79357	656376.78	4192775.30	0.82786
656676.78	4192775.30	0.76487	653676.78	4193075.30	0.34112
653976.78	4193075.30	0.39440	654276.78	4193075.30	0.45443
654576.78	4193075.30	0.53429	654876.78	4193075.30	0.65865
655176.78	4193075.30	0.86199	655476.78	4193075.30	1.06676
655776.78	4193075.30	1.04987	656076.78	4193075.30	1.15472

656376.78	4193075.30	1.16622	656676.78	4193075.30	1.01733
653676.78	4193375.30	0.38625	653976.78	4193375.30	0.46683
654276.78	4193375.30	0.56821	654576.78	4193375.30	0.68825
654876.78	4193375.30	0.85072	655176.78	4193375.30	1.13821
655476.78	4193375.30	1.59996	655776.78	4193375.30	1.68533
656076.78	4193375.30	1.87239	656376.78	4193375.30	1.71913
656676.78	4193375.30	1.50174	653676.78	4193675.30	0.44868
653976.78	4193675.30	0.54686	654276.78	4193675.30	0.68508
654576.78	4193675.30	0.89697	654876.78	4193675.30	1.19217
655176.78	4193675.30	1.62827	655476.78	4193675.30	2.58706
655776.78	4193675.30	3.26557	656076.78	4193675.30	3.57705

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE

GROUP: VOL6 ***

INCLUDING SOURCE(S): VOL6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***					
** CONC OF OTHER IN MICROGRAMS/M**3					
X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	2.94384	656676.78	4193675.30	2.22708
653676.78	4193975.30	0.51215	653976.78	4193975.30	0.64386
654276.78	4193975.30	0.84009	654576.78	4193975.30	1.14623
654876.78	4193975.30	1.67095	655176.78	4193975.30	2.69530
655476.78	4193975.30	4.96098	655776.78	4193975.30	9.86538
656076.78	4193975.30	9.30999	656376.78	4193975.30	5.22256
656676.78	4193975.30	2.91280	653676.78	4194275.30	0.57668
653976.78	4194275.30	0.74199	654276.78	4194275.30	0.99787
654576.78	4194275.30	1.43120	654876.78	4194275.30	2.26890
655176.78	4194275.30	4.31443	655476.78	4194275.30	12.63382
655776.78	4194275.30	0.00000	656076.78	4194275.30	22.58313
656376.78	4194275.30	6.26428	656676.78	4194275.30	3.04197
653676.78	4194575.30	0.59336	653976.78	4194575.30	0.75385
654276.78	4194575.30	0.99788	654576.78	4194575.30	1.40553
654876.78	4194575.30	2.17431	655176.78	4194575.30	3.86616
655476.78	4194575.30	8.57252	655776.78	4194575.30	11.75670
656076.78	4194575.30	6.31736	656376.78	4194575.30	3.55888
656676.78	4194575.30	2.20310	653676.78	4194875.30	0.53742
653976.78	4194875.30	0.68275	654276.78	4194875.30	0.88646
654576.78	4194875.30	1.18920	654876.78	4194875.30	1.66986
655176.78	4194875.30	2.52598	655476.78	4194875.30	3.20003
655776.78	4194875.30	2.70275	656076.78	4194875.30	2.20743
656376.78	4194875.30	1.64794	656676.78	4194875.30	1.26398
653676.78	4195175.30	0.49365	653976.78	4195175.30	0.60040
654276.78	4195175.30	0.74684	654576.78	4195175.30	0.94871
654876.78	4195175.30	1.26772	655176.78	4195175.30	1.51847
655476.78	4195175.30	1.45708	655776.78	4195175.30	1.28094
656076.78	4195175.30	1.15078	656376.78	4195175.30	0.96928

655476.78	4193375.30	2.58165	655776.78	4193375.30	3.75062
656076.78	4193375.30	4.13781	656376.78	4193375.30	3.43220
656676.78	4193375.30	2.51609	653676.78	4193675.30	0.50315
653976.78	4193675.30	0.63180	654276.78	4193675.30	0.82073
654576.78	4193675.30	1.12214	654876.78	4193675.30	1.63423
655176.78	4193675.30	2.64873	655476.78	4193675.30	5.06718
655776.78	4193675.30	12.86749	656076.78	4193675.30	12.93780

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: VOL7 ***

INCLUDING SOURCE(S): VOL7 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	6.37687	656676.78	4193675.30	3.32233
653676.78	4193975.30	0.56009	653976.78	4193975.30	0.71628
654276.78	4193975.30	0.95568	654576.78	4193975.30	1.35174
654876.78	4193975.30	2.10161	655176.78	4193975.30	3.85433
655476.78	4193975.30	10.37052	655776.78	4193975.30	0.00000
656076.78	4193975.30	33.77625	656376.78	4193975.30	7.23169
656676.78	4193975.30	3.33176	653676.78	4194275.30	0.56005
653976.78	4194275.30	0.70573	654276.78	4194275.30	0.92561
654576.78	4194275.30	1.28522	654876.78	4194275.30	1.92973
655176.78	4194275.30	3.24881	655476.78	4194275.30	6.44784
655776.78	4194275.30	9.76372	656076.78	4194275.30	6.03451
656376.78	4194275.30	3.45328	656676.78	4194275.30	2.19812
653676.78	4194575.30	0.51341	653976.78	4194575.30	0.64254
654276.78	4194575.30	0.82257	654576.78	4194575.30	1.08647
654876.78	4194575.30	1.49600	655176.78	4194575.30	2.18336
655476.78	4194575.30	2.77963	655776.78	4194575.30	2.46527
656076.78	4194575.30	2.06248	656376.78	4194575.30	1.58999
656676.78	4194575.30	1.22657	653676.78	4194875.30	0.46690
653976.78	4194875.30	0.56546	654276.78	4194875.30	0.69632
654576.78	4194875.30	0.87742	654876.78	4194875.30	1.14865
655176.78	4194875.30	1.37639	655476.78	4194875.30	1.35637
655776.78	4194875.30	1.19356	656076.78	4194875.30	1.08616
656376.78	4194875.30	0.93822	656676.78	4194875.30	0.78159
653676.78	4195175.30	0.41482	653976.78	4195175.30	0.48856
654276.78	4195175.30	0.58785	654576.78	4195175.30	0.72686
654876.78	4195175.30	0.84065	655176.78	4195175.30	0.85950
655476.78	4195175.30	0.79677	655776.78	4195175.30	0.72926
656076.78	4195175.30	0.68518	656376.78	4195175.30	0.62469
656676.78	4195175.30	0.54793	653676.78	4195475.30	0.36504
653976.78	4195475.30	0.42731	654276.78	4195475.30	0.50927
654576.78	4195475.30	0.57572	654876.78	4195475.30	0.59271
655176.78	4195475.30	0.58094	655476.78	4195475.30	0.52936

655776.78 4195475.30 0.50211 656076.78 4195475.30 0.47958
656376.78 4195475.30 0.44707 656676.78 4195475.30 0.40893
*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 12/10/24
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE

GROUP: VOL8

INCLUDING SOURCE(S): VOL8 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	1.08600	656126.40	4192764.99	1.05755
656103.65	4192731.89	1.01484	656093.30	4192690.51	0.96380
656217.44	4192771.20	1.05689	656279.50	4192760.85	1.04310
656341.57	4192727.75	1.00922	656366.40	4192707.06	0.98909
653815.06	4193437.51	0.37275	653776.43	4193429.79	0.36330
653798.32	4193413.05	0.36583	653708.18	4193118.16	0.31011
653730.07	4193102.71	0.31132	653753.25	4193085.97	0.31257
653800.90	4193053.77	0.31561	653882.02	4192964.92	0.31738
653907.78	4192962.34	0.32138	653945.12	4192954.62	0.32685
654067.45	4192886.37	0.34028	654108.66	4192861.90	0.34456
654140.85	4192841.30	0.34751	654376.51	4192702.22	0.36310
654399.69	4192673.89	0.36070	654024.74	4193417.88	0.42005
653831.84	4193501.47	0.38560	653915.64	4193528.15	0.41006
653813.62	4193608.32	0.39723	653676.78	4192475.30	0.24211
653976.78	4192475.30	0.27219	654276.78	4192475.30	0.30517
654576.78	4192475.30	0.34364	654876.78	4192475.30	0.39640
655176.78	4192475.30	0.47308	655476.78	4192475.30	0.58802
655776.78	4192475.30	0.72008	656076.78	4192475.30	0.75179
656376.78	4192475.30	0.74886	656676.78	4192475.30	0.81739
653676.78	4192775.30	0.26803	653976.78	4192775.30	0.31092
654276.78	4192775.30	0.36097	654576.78	4192775.30	0.41721
654876.78	4192775.30	0.48349	655176.78	4192775.30	0.57777
655476.78	4192775.30	0.72845	655776.78	4192775.30	0.95756
656076.78	4192775.30	1.07545	656376.78	4192775.30	1.08900
656676.78	4192775.30	1.18586	653676.78	4193075.30	0.29976
653976.78	4193075.30	0.34910	654276.78	4193075.30	0.41524
654576.78	4193075.30	0.50322	654876.78	4193075.30	0.61234
655176.78	4193075.30	0.74530	655476.78	4193075.30	0.94578
655776.78	4193075.30	1.31436	656076.78	4193075.30	1.67966
656376.78	4193075.30	1.76192	656676.78	4193075.30	1.86945
653676.78	4193375.30	0.33718	653976.78	4193375.30	0.40083
654276.78	4193375.30	0.48340	654576.78	4193375.30	0.59578
654876.78	4193375.30	0.75879	655176.78	4193375.30	0.99904
655476.78	4193375.30	1.33758	655776.78	4193375.30	1.93467
656076.78	4193375.30	3.00869	656376.78	4193375.30	3.49818
656676.78	4193375.30	3.38202	653676.78	4193675.30	0.37490
653976.78	4193675.30	0.45228	654276.78	4193675.30	0.55763

654576.78 4193675.30 0.71077 654876.78 4193675.30 0.93878
655176.78 4193675.30 1.31001 655476.78 4193675.30 1.97887
655776.78 4193675.30 3.34813 656076.78 4193675.30 7.02094
*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 12/10/24
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: VOL8 ***
INCLUDING SOURCE(S): VOL8 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
656376.78	4193675.30	11.35749	656676.78	4193675.30	7.47700
653676.78	4193975.30	0.41055	653976.78	4193975.30	0.50224
654276.78	4193975.30	0.63153	654576.78	4193975.30	0.82202
654876.78	4193975.30	1.12627	655176.78	4193975.30	1.66190
655476.78	4193975.30	2.76941	655776.78	4193975.30	5.83982
656076.78	4193975.30	0.00000	656376.78	4193975.30	0.00000
656676.78	4193975.30	11.07294	653676.78	4194275.30	0.42333
653976.78	4194275.30	0.51403	654276.78	4194275.30	0.63956
654576.78	4194275.30	0.82333	654876.78	4194275.30	1.11209
655176.78	4194275.30	1.61079	655476.78	4194275.30	2.58131
655776.78	4194275.30	4.85515	656076.78	4194275.30	9.97359
656376.78	4194275.30	9.02235	656676.78	4194275.30	4.56950
653676.78	4194575.30	0.38933	653976.78	4194575.30	0.47095
654276.78	4194575.30	0.58418	654576.78	4194575.30	0.74251
654876.78	4194575.30	0.97072	655176.78	4194575.30	1.31853
655476.78	4194575.30	1.89400	655776.78	4194575.30	2.73066
656076.78	4194575.30	2.83139	656376.78	4194575.30	2.34366
656676.78	4194575.30	1.84411	653676.78	4194875.30	0.36949
653976.78	4194875.30	0.43797	654276.78	4194875.30	0.52551
654576.78	4194875.30	0.64375	654876.78	4194875.30	0.80400
655176.78	4194875.30	1.04034	655476.78	4194875.30	1.34361
655776.78	4194875.30	1.45577	656076.78	4194875.30	1.30025
656376.78	4194875.30	1.17355	656676.78	4194875.30	1.03231
653676.78	4195175.30	0.33556	653976.78	4195175.30	0.39125
654276.78	4195175.30	0.46057	654576.78	4195175.30	0.54841
654876.78	4195175.30	0.67319	655176.78	4195175.30	0.82095
655476.78	4195175.30	0.88854	655776.78	4195175.30	0.86164
656076.78	4195175.30	0.76872	656376.78	4195175.30	0.72594
656676.78	4195175.30	0.66614	653676.78	4195475.30	0.30428
653976.78	4195475.30	0.34781	654276.78	4195475.30	0.40269
654576.78	4195475.30	0.47834	654876.78	4195475.30	0.56292
655176.78	4195475.30	0.60549	655476.78	4195475.30	0.60621
655776.78	4195475.30	0.56841	656076.78	4195475.30	0.51999
656376.78	4195475.30	0.50168	656676.78	4195475.30	0.46873

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE

GROUP: VOL1

INCLUDING SOURCE(S): VOL1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
---------------------------	-------------	--------------------	-------------	-------------	------

656165.71	4192787.75	58.35378 (17121219)	656126.40	4192764.99	55.10793 (17121219)
656103.65	4192731.89	58.58335 (17122320)	656093.30	4192690.51	58.42534 (17122320)
656217.44	4192771.20	57.27759 (17121219)	656279.50	4192760.85	55.06828 (17121219)
656341.57	4192727.75	52.67921 (17121219)	656366.40	4192707.06	52.00382 (17121219)
653815.06	4193437.51	171.74698 (15021203)	653776.43	4193429.79	167.17415 (13020306)
653798.32	4193413.05	165.84734 (15022608)	653708.18	4193118.16	131.54089 (17123007)
653730.07	4193102.71	131.61761 (17123007)	653753.25	4193085.97	129.68513 (17122918)
653800.90	4193053.77	124.16490 (14021105)	653882.02	4192964.92	116.94996 (14120620)
653907.78	4192962.34	118.07999 (15010901)	653945.12	4192954.62	119.27121 (14012501)
654067.45	4192886.37	123.78509 (17011609)	654108.66	4192861.90	116.02249 (17122820)
654140.85	4192841.30	108.46775 (14021321)	654376.51	4192702.22	156.11904 (15041307)
654399.69	4192673.89	153.40288 (15041307)	654024.74	4193417.88	191.85066 (15010901)
653831.84	4193501.47	185.87386 (15022608)	653915.64	4193528.15	215.37827 (17123007)
653813.62	4193608.32	214.34857 (13020205)	653676.78	4192475.30	79.65450 (16012703)
653976.78	4192475.30	92.97378 (17011609)	654276.78	4192475.30	98.08759 (15041307)
654576.78	4192475.30	82.43346 (17011203)	654876.78	4192475.30	84.47838 (17012804)
655176.78	4192475.30	75.47624 (17020801)	655476.78	4192475.30	67.30670 (17120120)
655776.78	4192475.30	60.81059 (17012908)	656076.78	4192475.30	70.76380 (15030608)
656376.78	4192475.30	49.29861 (17122320)	656676.78	4192475.30	43.88953 (17121219)
653676.78	4192775.30	95.44375 (17122918)	653976.78	4192775.30	111.63783 (17011609)
654276.78	4192775.30	122.94798 (15041307)	654576.78	4192775.30	111.59796 (17013024)
654876.78	4192775.30	100.43334 (17122920)	655176.78	4192775.30	83.82410 (17011208)
655476.78	4192775.30	75.49878 (17012908)	655776.78	4192775.30	76.83385 (15030608)
656076.78	4192775.30	58.79540 (17122320)	656376.78	4192775.30	58.24330 (14102408)
656676.78	4192775.30	58.80896 (14102408)	653676.78	4193075.30	123.54317 (17123007)
653976.78	4193075.30	133.29397 (14012501)	654276.78	4193075.30	154.80658 (15041307)
654576.78	4193075.30	138.77850 (17122701)	654876.78	4193075.30	127.52265 (17020801)
655176.78	4193075.30	93.94509 (17012908)	655476.78	4193075.30	83.61043 (15030608)
655776.78	4193075.30	76.87036 (17121219)	656076.78	4193075.30	75.70771 (14102408)
656376.78	4193075.30	49.76047 (17011509)	656676.78	4193075.30	45.68817 (14042707)
653676.78	4193375.30	157.33191 (13020205)	653976.78	4193375.30	177.27977 (13012120)
654276.78	4193375.30	193.86424 (15011509)	654576.78	4193375.30	189.35210 (17122920)
654876.78	4193375.30	140.89080 (17011508)	655176.78	4193375.30	109.81691 (17122320)
655476.78	4193375.30	101.26314 (17121320)	655776.78	4193375.30	85.15826 (17011509)
656076.78	4193375.30	58.66177 (17122619)	656376.78	4193375.30	48.36081 (17121906)
656676.78	4193375.30	41.39881 (17020824)	653676.78	4193675.30	207.66501 (17121108)
653976.78	4193675.30	268.78814 (17123007)	654276.78	4193675.30	298.65110 (17122917)
654576.78	4193675.30	243.73993 (17020801)	654876.78	4193675.30	187.08912 (17122320)
655176.78	4193675.30	163.95478 (17011509)	655476.78	4193675.30	95.26903 (17122619)
655776.78	4193675.30	73.98196 (17020824)	656076.78	4193675.30	59.23608 (17011303)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE

GROUP: VOL1 ***

INCLUDING SOURCE(S): VOL1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
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656376.78	4193675.30	48.37555 (17121319)	656676.78	4193675.30	43.59686 (17121319)
653676.78	4193975.30	276.08663 (17021420)	653976.78	4193975.30	427.21337 (16010309)
654276.78	4193975.30	566.52979 (17122917)	654576.78	4193975.30	382.76289 (17011509)
654876.78	4193975.30	191.72783 (17121906)	655176.78	4193975.30	125.46600 (17011303)
655476.78	4193975.30	96.37811 (17010504)	655776.78	4193975.30	78.87017 (17122519)
656076.78	4193975.30	65.80746 (17122519)	656376.78	4193975.30	52.71951 (17122719)
656676.78	4193975.30	45.36575 (17122719)	653676.78	4194275.30	307.26209 (17011121)
653976.78	4194275.30	575.05892 (17122608)	654276.78	4194275.30	0.00000 (00000000)
654576.78	4194275.30	367.64698 (14022208)	654876.78	4194275.30	221.72543 (14022208)
655176.78	4194275.30	151.84996 (14022208)	655476.78	4194275.30	110.93071 (14022208)
655776.78	4194275.30	84.63928 (14022208)	656076.78	4194275.30	66.71586 (14022208)
656376.78	4194275.30	54.67810 (13123017)	656676.78	4194275.30	46.04843 (16010203)
653676.78	4194575.30	208.98450 (17043004)	653976.78	4194575.30	299.65937 (16111008)
654276.78	4194575.30	387.99385 (17012905)	654576.78	4194575.30	277.34786 (14011617)
654876.78	4194575.30	187.57483 (13121617)	655176.78	4194575.30	134.92649 (14011317)
655476.78	4194575.30	100.70280 (13020204)	655776.78	4194575.30	78.90201 (13032807)
656076.78	4194575.30	64.64739 (14010519)	656376.78	4194575.30	52.91896 (14021120)
656676.78	4194575.30	45.88167 (15122424)	653676.78	4194875.30	161.45245 (17122909)
653976.78	4194875.30	198.74007 (17120219)	654276.78	4194875.30	215.92860 (17012720)
654576.78	4194875.30	196.20892 (17021405)	654876.78	4194875.30	148.09677 (14011617)
655176.78	4194875.30	123.61395 (17121119)	655476.78	4194875.30	91.45819 (13121617)
655776.78	4194875.30	74.40975 (13020908)	656076.78	4194875.30	61.07449 (13121420)
656376.78	4194875.30	52.63025 (15010317)	656676.78	4194875.30	44.11887 (15122617)
653676.78	4195175.30	113.03064 (17022607)	653976.78	4195175.30	139.06542 (17012717)
654276.78	4195175.30	153.12211 (17012720)	654576.78	4195175.30	149.68418 (17022508)
654876.78	4195175.30	124.89225 (17022706)	655176.78	4195175.30	96.12938 (17022408)
655476.78	4195175.30	79.37111 (17123020)	655776.78	4195175.30	88.38909 (13103008)
656076.78	4195175.30	56.13499 (17120617)	656376.78	4195175.30	48.28554 (13020908)
656676.78	4195175.30	42.39367 (14011317)	653676.78	4195475.30	100.81350 (17120219)
653976.78	4195475.30	107.05688 (17012717)	654276.78	4195475.30	115.38350 (17012720)
654576.78	4195475.30	107.38113 (17121401)	654876.78	4195475.30	94.32890 (17121904)
655176.78	4195475.30	88.78086 (17012601)	655476.78	4195475.30	69.84623 (17120205)
655776.78	4195475.30	76.98031 (13121109)	656076.78	4195475.30	70.56226 (13103008)
656376.78	4195475.30	64.78573 (13103008)	656676.78	4195475.30	38.98643 (14022207)

*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE

GROUP: VOL2

INCLUDING SOURCE(S): VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656165.71	4192787.75	64.33783 (17011509)	656126.40	4192764.99	70.28969 (17011509)
656103.65	4192731.89	73.12259 (14102408)	656093.30	4192690.51	74.46065 (14102408)
656217.44	4192771.20	60.46871 (17011509)	656279.50	4192760.85	54.38513 (17011509)
656341.57	4192727.75	52.03295 (17011509)	656366.40	4192707.06	52.25762 (17011509)
653815.06	4193437.51	273.15099 (15010507)	653776.43	4193429.79	262.36085 (15122802)
653798.32	4193413.05	261.30441 (15010507)	653708.18	4193118.16	175.55435 (17121508)
653730.07	4193102.71	169.06367 (15022608)	653753.25	4193085.97	169.53833 (15021203)
653800.90	4193053.77	179.29428 (17123007)	653882.02	4192964.92	163.32298 (16012703)
653907.78	4192962.34	161.14897 (14120620)	653945.12	4192954.62	165.50496 (15010901)
654067.45	4192886.37	166.36400 (17011609)	654108.66	4192861.90	156.56299 (17123009)
654140.85	4192841.30	173.76183 (17123009)	654376.51	4192702.22	144.87063 (17122917)
654399.69	4192673.89	135.82289 (17122917)	654024.74	4193417.88	310.49234 (13012120)
653831.84	4193501.47	304.28407 (15122802)	653915.64	4193528.15	343.65275 (17020905)
653813.62	4193608.32	339.55945 (13123102)	653676.78	4192475.30	101.04921 (14021105)
653976.78	4192475.30	119.68350 (17011609)	654276.78	4192475.30	156.05376 (15041307)
654576.78	4192475.30	113.57365 (17122701)	654876.78	4192475.30	102.74429 (17012903)
655176.78	4192475.30	88.44076 (17120120)	655476.78	4192475.30	77.28723 (17012908)
655776.78	4192475.30	59.46173 (15030608)	656076.78	4192475.30	58.89549 (17121219)
656376.78	4192475.30	66.06316 (14102408)	656676.78	4192475.30	49.32775 (14102408)
653676.78	4192775.30	132.45789 (17123007)	653976.78	4192775.30	151.17736 (17011609)
654276.78	4192775.30	182.90180 (15041307)	654576.78	4192775.30	142.03190 (17012804)
654876.78	4192775.30	117.88551 (17020801)	655176.78	4192775.30	104.15417 (17012908)
655476.78	4192775.30	82.31177 (17122320)	655776.78	4192775.30	74.75936 (17121219)
656076.78	4192775.30	73.28935 (17011509)	656376.78	4192775.30	48.13295 (14042707)
656676.78	4192775.30	42.13059 (14042707)	653676.78	4193075.30	166.14841 (17121508)
653976.78	4193075.30	190.83714 (15010901)	654276.78	4193075.30	212.91108 (17122917)
654576.78	4193075.30	189.53902 (17012903)	654876.78	4193075.30	145.50228 (17012908)
655176.78	4193075.30	122.92144 (17122320)	655476.78	4193075.30	110.16449 (17011509)
655776.78	4193075.30	68.25202 (17011509)	656076.78	4193075.30	57.93301 (17122619)
656376.78	4193075.30	47.88905 (17020824)	656676.78	4193075.30	37.83822 (17020824)
653676.78	4193375.30	224.87268 (17121108)	653976.78	4193375.30	283.43315 (14021105)
654276.78	4193375.30	317.61321 (17122917)	654576.78	4193375.30	232.92301 (17120120)
654876.78	4193375.30	185.58275 (17121219)	655176.78	4193375.30	139.20457 (17011509)
655476.78	4193375.30	90.81756 (17121906)	655776.78	4193375.30	67.65527 (17020824)
656076.78	4193375.30	58.17121 (17011303)	656376.78	4193375.30	49.82072 (17121319)
656676.78	4193375.30	41.31565 (17121319)	653676.78	4193675.30	307.97814 (17021420)
653976.78	4193675.30	499.74847 (16010309)	654276.78	4193675.30	588.91085 (17012903)
654576.78	4193675.30	388.92115 (17011509)	654876.78	4193675.30	172.57681 (17020824)
655176.78	4193675.30	125.85479 (17121319)	655476.78	4193675.30	93.85299 (17122519)
655776.78	4193675.30	78.98215 (17122519)	656076.78	4193675.30	62.29871 (17122519)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 12/10/24

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE

GROUP: VOL2

INCLUDING SOURCE(S): VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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(YYMMDDHH)

656376.78	4193675.30	52.23668	(17122719)	656676.78	4193675.30	43.64786 (17122719)
653676.78	4193975.30	340.11065	(17121322)	653976.78	4193975.30	675.82510 (17011201)
654276.78	4193975.30	0.00000	(00000000)	654576.78	4193975.30	327.97720 (14021120)
654876.78	4193975.30	199.37237	(14022208)	655176.78	4193975.30	143.34303 (14022208)
655476.78	4193975.30	107.86457	(14022208)	655776.78	4193975.30	83.91138 (14022208)
656076.78	4193975.30	67.01707	(14022208)	656376.78	4193975.30	54.68382 (14022208)
656676.78	4193975.30	45.79313	(13123017)	653676.78	4194275.30	218.78692 (17120208)
653976.78	4194275.30	323.63765	(17022607)	654276.78	4194275.30	377.91543 (17022508)
654576.78	4194275.30	265.42076	(17022407)	654876.78	4194275.30	176.37185 (13121617)
655176.78	4194275.30	128.82899	(14011317)	655476.78	4194275.30	97.26639 (13020204)
655776.78	4194275.30	76.48934	(13032807)	656076.78	4194275.30	63.01115 (14010519)
656376.78	4194275.30	51.21239	(14021120)	656676.78	4194275.30	44.62609 (15122424)
653676.78	4194575.30	153.98449	(16120505)	653976.78	4194575.30	194.56915 (17012717)
654276.78	4194575.30	213.18764	(17012905)	654576.78	4194575.30	194.40025 (17021405)
654876.78	4194575.30	144.77584	(14011617)	655176.78	4194575.30	119.95047 (17121119)
655476.78	4194575.30	87.68743	(13121617)	655776.78	4194575.30	72.01172 (13020908)
656076.78	4194575.30	59.23044	(13121420)	656376.78	4194575.30	51.40100 (15010317)
656676.78	4194575.30	43.09055	(15121621)	653676.78	4194875.30	127.44983 (17022607)
653976.78	4194875.30	145.79386	(17012717)	654276.78	4194875.30	132.87561 (13020121)
654576.78	4194875.30	139.59531	(17022508)	654876.78	4194875.30	118.40093 (17022706)
655176.78	4194875.30	94.87585	(14011617)	655476.78	4194875.30	79.53070 (17123020)
655776.78	4194875.30	86.71918	(13103008)	656076.78	4194875.30	54.33422 (17120617)
656376.78	4194875.30	47.05661	(13020908)	656676.78	4194875.30	41.37111 (14011317)
653676.78	4195175.30	96.26621	(17120219)	653976.78	4195175.30	102.60274 (17020802)
654276.78	4195175.30	100.27813	(17012720)	654576.78	4195175.30	99.55173 (17121401)
654876.78	4195175.30	92.64317	(17021405)	655176.78	4195175.30	86.44331 (17012601)
655476.78	4195175.30	74.36182	(13121109)	655776.78	4195175.30	72.27761 (13121109)
656076.78	4195175.30	72.00470	(13103008)	656376.78	4195175.30	62.51501 (13103008)
656676.78	4195175.30	38.14834	(14022207)	653676.78	4195475.30	69.60504 (13040107)
653976.78	4195475.30	84.15420	(17020802)	654276.78	4195475.30	82.90374 (17012720)
654576.78	4195475.30	79.82667	(17121401)	654876.78	4195475.30	72.91845 (17122223)
655176.78	4195475.30	68.19488	(17021405)	655476.78	4195475.30	59.93981 (17012601)
655776.78	4195475.30	60.94016	(13121109)	656076.78	4195475.30	71.95775 (13121109)
656376.78	4195475.30	44.62813	(17123020)	656676.78	4195475.30	68.22690 (13103008)

*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 12/10/24

*** AERMET - VERSION 18081 ***

*** 10:09:04

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: VOL3 ***

INCLUDING SOURCE(S): VOL3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656165.71	4192787.75	62.32363 (15030608)	656126.40	4192764.99	65.59907 (15030608)
656103.65	4192731.89	65.52565 (15030608)	656093.30	4192690.51	62.91783 (15030608)
656217.44	4192771.20	58.82584 (15030608)	656279.50	4192760.85	52.73740 (15030608)
656341.57	4192727.75	48.68779 (15030608)	656366.40	4192707.06	47.97979 (15030608)
653815.06	4193437.51	90.97933 (15010804)	653776.43	4193429.79	88.21545 (15010804)
653798.32	4193413.05	88.86227 (15010804)	653708.18	4193118.16	74.52255 (17121108)
653730.07	4193102.71	74.66827 (17121108)	653753.25	4193085.97	73.40781 (14022101)
653800.90	4193053.77	74.67643 (15122802)	653882.02	4192964.92	73.26247 (15010507)
653907.78	4192962.34	73.15185 (13012423)	653945.12	4192954.62	74.56708 (13020205)
654067.45	4192886.37	75.03876 (14011509)	654108.66	4192861.90	75.98636 (14011509)
654140.85	4192841.30	76.25438 (17123007)	654376.51	4192702.22	71.62499 (15010901)
654399.69	4192673.89	70.23804 (15010901)	654024.74	4193417.88	102.75593 (17121108)
653831.84	4193501.47	94.70600 (15011205)	653915.64	4193528.15	101.31807 (15010804)
653813.62	4193608.32	99.19577 (17120517)	653676.78	4192475.30	54.94541 (13020205)
653976.78	4192475.30	67.37187 (14011509)	654276.78	4192475.30	60.34761 (14120620)
654576.78	4192475.30	66.00039 (17122820)	654876.78	4192475.30	107.35434 (15041307)
655176.78	4192475.30	67.16567 (17122701)	655476.78	4192475.30	62.27161 (17122920)
655776.78	4192475.30	54.01491 (17020801)	656076.78	4192475.30	46.44995 (17011508)
656376.78	4192475.30	62.01201 (15030608)	656676.78	4192475.30	40.49755 (17122320)
653676.78	4192775.30	61.51925 (15010507)	653976.78	4192775.30	69.91896 (14011509)
654276.78	4192775.30	72.93335 (13012120)	654576.78	4192775.30	85.17723 (17011609)
654876.78	4192775.30	113.37549 (15041307)	655176.78	4192775.30	75.25897 (17012804)
655476.78	4192775.30	72.56546 (17020801)	655776.78	4192775.30	58.36249 (17011508)
656076.78	4192775.30	66.41010 (15030608)	656376.78	4192775.30	50.69181 (17122320)
656676.78	4192775.30	44.84739 (17121219)	653676.78	4193075.30	72.19603 (17121108)
653976.78	4193075.30	79.95261 (13012423)	654276.78	4193075.30	90.05195 (17123007)
654576.78	4193075.30	110.25668 (17011609)	654876.78	4193075.30	116.49886 (15041307)
655176.78	4193075.30	96.41475 (17122920)	655476.78	4193075.30	81.01786 (17120120)
655776.78	4193075.30	70.78975 (15030608)	656076.78	4193075.30	62.48454 (17122320)
656376.78	4193075.30	60.73728 (17011509)	656676.78	4193075.30	51.06357 (17011509)
653676.78	4193375.30	81.56633 (15011205)	653976.78	4193375.30	97.53473 (17121108)
654276.78	4193375.30	110.88279 (13020205)	654576.78	4193375.30	143.26034 (17011609)
654876.78	4193375.30	134.09890 (17122917)	655176.78	4193375.30	117.51492 (17020801)
655476.78	4193375.30	92.42406 (17012908)	655776.78	4193375.30	81.03894 (17121219)
656076.78	4193375.30	78.35114 (17011509)	656376.78	4193375.30	49.78042 (17122619)
656676.78	4193375.30	42.90365 (17121906)	653676.78	4193675.30	95.24963 (17021420)
653976.78	4193675.30	113.42986 (15010907)	654276.78	4193675.30	147.85551 (16010309)
654576.78	4193675.30	194.52434 (17011609)	654876.78	4193675.30	189.45495 (17122318)
655176.78	4193675.30	140.76340 (17012908)	655476.78	4193675.30	131.23148 (17011509)
655776.78	4193675.30	77.46416 (17011509)	656076.78	4193675.30	59.90306 (17020824)

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 12/10/24
*** AERMET - VERSION 18081 *** ***

*** 10:09:04

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: VOL3 ***
INCLUDING SOURCE(S): VOL3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656376.78	4193675.30	49.31411 (17011303)	656676.78	4193675.30	43.00717 (17121319)
653676.78	4193975.30	102.08766 (17022506)	653976.78	4193975.30	133.89172 (17011605)
654276.78	4193975.30	204.10816 (17021308)	654576.78	4193975.30	0.00000 (00000000)
654876.78	4193975.30	0.00000 (00000000)	655176.78	4193975.30	184.32442 (17011509)
655476.78	4193975.30	102.31305 (14012017)	655776.78	4193975.30	81.57039 (17122519)
656076.78	4193975.30	65.72042 (17122519)	656376.78	4193975.30	52.91211 (17122719)
656676.78	4193975.30	44.80020 (15121209)	653676.78	4194275.30	104.88964 (17121322)
653976.78	4194275.30	133.95162 (17121322)	654276.78	4194275.30	198.90191 (17011201)
654576.78	4194275.30	0.00000 (00000000)	654876.78	4194275.30	0.00000 (00000000)
655176.78	4194275.30	167.60370 (14011317)	655476.78	4194275.30	111.19005 (14021120)
655776.78	4194275.30	84.25257 (14021603)	656076.78	4194275.30	68.45867 (14022208)
656376.78	4194275.30	57.92886 (14022208)	656676.78	4194275.30	49.73563 (14022208)
653676.78	4194575.30	97.81138 (17020404)	653976.78	4194575.30	113.38633 (17121402)
654276.78	4194575.30	135.44563 (17122909)	654576.78	4194575.30	186.97813 (17012717)
654876.78	4194575.30	198.04893 (17022508)	655176.78	4194575.30	135.96634 (17122923)
655476.78	4194575.30	101.66893 (17121119)	655776.78	4194575.30	81.93861 (14011317)
656076.78	4194575.30	64.33097 (15010823)	656376.78	4194575.30	53.45400 (15121621)
656676.78	4194575.30	45.85243 (13120917)	653676.78	4194875.30	69.05043 (17120208)
653976.78	4194875.30	81.23750 (17122909)	654276.78	4194875.30	99.66575 (17122724)
654576.78	4194875.30	126.76800 (17012717)	654876.78	4194875.30	120.17656 (17012905)
655176.78	4194875.30	108.33426 (17021405)	655476.78	4194875.30	86.62113 (14011617)
655776.78	4194875.30	74.86922 (17121119)	656076.78	4194875.30	60.54340 (13121617)
656376.78	4194875.30	51.31593 (13020908)	656676.78	4194875.30	45.05499 (14011317)
653676.78	4195175.30	57.89647 (14012407)	653976.78	4195175.30	84.89021 (13011909)
654276.78	4195175.30	83.54748 (17120219)	654576.78	4195175.30	87.99649 (17012924)
654876.78	4195175.30	88.77102 (17012905)	655176.78	4195175.30	87.09326 (17022508)
655476.78	4195175.30	75.99704 (17022706)	655776.78	4195175.30	67.69576 (13121109)
656076.78	4195175.30	60.16777 (13121109)	656376.78	4195175.30	61.57580 (13103008)
656676.78	4195175.30	41.92956 (13103008)	653676.78	4195475.30	66.36481 (13011909)
653976.78	4195475.30	66.08289 (13011909)	654276.78	4195475.30	60.81258 (13040107)
654576.78	4195475.30	71.28046 (17012924)	654876.78	4195475.30	64.46228 (13012305)
655176.78	4195475.30	72.02971 (17022508)	655476.78	4195475.30	64.64941 (17021405)
655776.78	4195475.30	58.51338 (17012601)	656076.78	4195475.30	58.95527 (13121109)
656376.78	4195475.30	60.54555 (13121109)	656676.78	4195475.30	52.53372 (13103008)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: VOL4 ***

INCLUDING SOURCE(S): VOL4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	68.05113 (17012903)	656126.40	4192764.99	68.88284 (17012903)
656103.65	4192731.89	66.61155 (17122920)	656093.30	4192690.51	67.25565 (17122920)
656217.44	4192771.20	64.53739 (17020801)	656279.50	4192760.85	66.21402 (17020801)
656341.57	4192727.75	63.36752 (17020801)	656366.40	4192707.06	61.66457 (17020801)
653815.06	4193437.51	63.78134 (15010907)	653776.43	4193429.79	63.00836 (17120517)
653798.32	4193413.05	62.82447 (15010907)	653708.18	4193118.16	54.94438 (15010804)
653730.07	4193102.71	55.31179 (13022803)	653753.25	4193085.97	55.76657 (13022803)
653800.90	4193053.77	55.38048 (13010906)	653882.02	4192964.92	56.92421 (13013108)
653907.78	4192962.34	56.95347 (13013108)	653945.12	4192954.62	57.25531 (17121108)
654067.45	4192886.37	57.88500 (15122802)	654108.66	4192861.90	57.54093 (15122802)
654140.85	4192841.30	55.62662 (13012124)	654376.51	4192702.22	57.41563 (17121508)
654399.69	4192673.89	64.44251 (14011509)	654024.74	4193417.88	70.03135 (15011205)
653831.84	4193501.47	67.95072 (17120517)	653915.64	4193528.15	70.49298 (17120517)
653813.62	4193608.32	69.23679 (17121504)	653676.78	4192475.30	43.85164 (17020823)
653976.78	4192475.30	48.29770 (15010507)	654276.78	4192475.30	57.93379 (14011509)
654576.78	4192475.30	56.44593 (17122918)	654876.78	4192475.30	57.47852 (15010901)
655176.78	4192475.30	61.56414 (17122820)	655476.78	4192475.30	101.42189 (15041307)
655776.78	4192475.30	61.80502 (17013024)	656076.78	4192475.30	59.87723 (17122620)
656376.78	4192475.30	53.80613 (17020801)	656676.78	4192475.30	49.98804 (17120120)
653676.78	4192775.30	49.69341 (13013108)	653976.78	4192775.30	53.83970 (15122802)
654276.78	4192775.30	58.12486 (17020905)	654576.78	4192775.30	77.81148 (14011509)
654876.78	4192775.30	67.43936 (13012120)	655176.78	4192775.30	77.04914 (17011609)
655476.78	4192775.30	112.86546 (15041307)	655776.78	4192775.30	74.12213 (17013024)
656076.78	4192775.30	69.15747 (17122920)	656376.78	4192775.30	58.62571 (17121708)
656676.78	4192775.30	50.02777 (17011508)	653676.78	4193075.30	53.58205 (15010804)
653976.78	4193075.30	61.36814 (13013108)	654276.78	4193075.30	67.26310 (15122802)
654576.78	4193075.30	74.18527 (17121508)	654876.78	4193075.30	81.15165 (14021105)
655176.78	4193075.30	98.12247 (17011609)	655476.78	4193075.30	123.34232 (15041307)
655776.78	4193075.30	85.83341 (17122701)	656076.78	4193075.30	81.03569 (17020801)
656376.78	4193075.30	64.96373 (17011508)	656676.78	4193075.30	71.71647 (15030608)
653676.78	4193375.30	59.71275 (17120517)	653976.78	4193375.30	67.31195 (15011205)
654276.78	4193375.30	78.48074 (13013108)	654576.78	4193375.30	87.75325 (15010507)
654876.78	4193375.30	101.71255 (17123007)	655176.78	4193375.30	122.85603 (17011609)
655476.78	4193375.30	129.08420 (15041307)	655776.78	4193375.30	109.99135 (17122920)
656076.78	4193375.30	91.33864 (17120120)	656376.78	4193375.30	77.25959 (15030608)
656676.78	4193375.30	68.15770 (17121219)	653676.78	4193675.30	66.60671 (17120203)
653976.78	4193675.30	77.77693 (17121504)	654276.78	4193675.30	87.43082 (17021403)
654576.78	4193675.30	106.42200 (13013108)	654876.78	4193675.30	125.33047 (17020905)
655176.78	4193675.30	150.70140 (17011609)	655476.78	4193675.30	158.74989 (17122917)
655776.78	4193675.30	136.26826 (17020801)	656076.78	4193675.30	101.27886 (17012908)

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*** AERMET - VERSION 18081 *** ***

*** 10:09:04

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: VOL4 ***
INCLUDING SOURCE(S): VOL4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
656376.78	4193675.30	94.54150 (17011509)	656676.78	4193675.30	81.50774 (17011509)
653676.78	4193975.30	68.92907 (17012823)	653976.78	4193975.30	83.11083 (17121823)
654276.78	4193975.30	107.95649 (17021308)	654576.78	4193975.30	128.24669 (17121504)
654876.78	4193975.30	160.56899 (13013108)	655176.78	4193975.30	214.70043 (13011517)
655476.78	4193975.30	229.14771 (17122701)	655776.78	4193975.30	162.95420 (17012908)
656076.78	4193975.30	149.73588 (17011509)	656376.78	4193975.30	86.72013 (17121906)
656676.78	4193975.30	63.82822 (17011303)	653676.78	4194275.30	69.10147 (17013008)
653976.78	4194275.30	85.23155 (17121807)	654276.78	4194275.30	107.81464 (17121807)
654576.78	4194275.30	142.22886 (17022506)	654876.78	4194275.30	206.15407 (17011605)
655176.78	4194275.30	0.00000 (00000000)	655476.78	4194275.30	0.00000 (00000000)
655776.78	4194275.30	182.27268 (17011509)	656076.78	4194275.30	122.30512 (17122519)
656376.78	4194275.30	90.20772 (17122519)	656676.78	4194275.30	71.22276 (17122621)
653676.78	4194575.30	73.35262 (17121322)	653976.78	4194575.30	88.24040 (17121322)
654276.78	4194575.30	104.09064 (17121322)	654576.78	4194575.30	142.10412 (17122608)
654876.78	4194575.30	202.54977 (17020404)	655176.78	4194575.30	0.00000 (00000000)
655476.78	4194575.30	0.00000 (00000000)	655776.78	4194575.30	190.67473 (14011317)
656076.78	4194575.30	123.49724 (13032807)	656376.78	4194575.30	91.90971 (14010519)
656676.78	4194575.30	72.94673 (14021603)	653676.78	4194875.30	80.47408 (16012009)
653976.78	4194875.30	96.68661 (16012009)	654276.78	4194875.30	103.22259 (17020404)
654576.78	4194875.30	104.70172 (17043004)	654876.78	4194875.30	137.58374 (17122909)
655176.78	4194875.30	173.56734 (17012717)	655476.78	4194875.30	188.93061 (17022508)
655776.78	4194875.30	144.22142 (17122321)	656076.78	4194875.30	115.20888 (17121119)
656376.78	4194875.30	84.65488 (14022307)	656676.78	4194875.30	71.50096 (14011317)
653676.78	4195175.30	65.93233 (17020404)	653976.78	4195175.30	67.38041 (17043004)
654276.78	4195175.30	71.36543 (17120208)	654576.78	4195175.30	84.40520 (17122909)
654876.78	4195175.30	101.08633 (17122724)	655176.78	4195175.30	128.09579 (17012717)
655476.78	4195175.30	123.04432 (17012905)	655776.78	4195175.30	111.56687 (17021405)
656076.78	4195175.30	94.91976 (17122321)	656376.78	4195175.30	74.24215 (13121109)
656676.78	4195175.30	69.38880 (13103008)	653676.78	4195475.30	47.37284 (17120624)
653976.78	4195475.30	51.51052 (15022507)	654276.78	4195475.30	59.14226 (16011405)
654576.78	4195475.30	90.35928 (13011909)	654876.78	4195475.30	85.71104 (17120219)
655176.78	4195475.30	90.63367 (17012717)	655476.78	4195475.30	83.71464 (17012905)
655776.78	4195475.30	94.89897 (17022508)	656076.78	4195475.30	80.07503 (17022706)
656376.78	4195475.30	68.74785 (17122321)	656676.78	4195475.30	72.52437 (13121109)

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977GSBU)\Documents\HRA\South S *** 12/10/24
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: VOL5 ***
INCLUDING SOURCE(S): VOL5 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M) (YYMMDDHH)	CONC (YYMMDDHH)	X-COORD (M) (YYMMDDHH)	Y-COORD (M) (YYMMDDHH)	CONC (YYMMDDHH)
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656165.71	4192787.75	92.08798 (17012908)	656126.40	4192764.99	95.87775 (17011508)
656103.65	4192731.89	98.47106 (17120120)	656093.30	4192690.51	99.53354 (17120120)
656217.44	4192771.20	95.50990 (17012908)	656279.50	4192760.85	94.79166 (17012908)
656341.57	4192727.75	88.48122 (17012908)	656366.40	4192707.06	87.48878 (15030608)
653815.06	4193437.51	101.45805 (14011709)	653776.43	4193429.79	100.51949 (14011709)
653798.32	4193413.05	100.67511 (17021308)	653708.18	4193118.16	85.07755 (17121504)
653730.07	4193102.71	87.55076 (17121504)	653753.25	4193085.97	87.52068 (17121504)
653800.90	4193053.77	88.88566 (17120517)	653882.02	4192964.92	84.99245 (13012121)
653907.78	4192962.34	86.56920 (13012121)	653945.12	4192954.62	88.45346 (13012105)
654067.45	4192886.37	90.90915 (13021704)	654108.66	4192861.90	91.93161 (15010508)
654140.85	4192841.30	94.73742 (13013108)	654376.51	4192702.22	97.16656 (15010507)
654399.69	4192673.89	95.64195 (13012423)	654024.74	4193417.88	118.15309 (17021308)
653831.84	4193501.47	102.44364 (17121823)	653915.64	4193528.15	109.48187 (17121823)
653813.62	4193608.32	104.09652 (17011605)	653676.78	4192475.30	63.91987 (14021223)
653976.78	4192475.30	72.48951 (14022101)	654276.78	4192475.30	80.83624 (14021122)
654576.78	4192475.30	101.74028 (14011509)	654876.78	4192475.30	95.00139 (15012509)
655176.78	4192475.30	105.01883 (17123009)	655476.78	4192475.30	126.68253 (15041307)
655776.78	4192475.30	100.30863 (17012804)	656076.78	4192475.30	93.35572 (17020801)
656376.78	4192475.30	73.90131 (17011508)	656676.78	4192475.30	85.05608 (15030608)
653676.78	4192775.30	71.70832 (13012105)	653976.78	4192775.30	82.54865 (14021223)
654276.78	4192775.30	95.61664 (15122802)	654576.78	4192775.30	109.47523 (17121508)
654876.78	4192775.30	121.09823 (14021105)	655176.78	4192775.30	130.91071 (17123009)
655476.78	4192775.30	130.20046 (17011203)	655776.78	4192775.30	125.26785 (17012903)
656076.78	4192775.30	101.63610 (17120120)	656376.78	4192775.30	94.85288 (15030608)
656676.78	4192775.30	77.22339 (17122320)	653676.78	4193075.30	84.20233 (17121504)
653976.78	4193075.30	93.98266 (17021403)	654276.78	4193075.30	113.52206 (13010906)
654576.78	4193075.30	135.87648 (15122802)	654876.78	4193075.30	165.44163 (17123007)
655176.78	4193075.30	184.92881 (17011609)	655476.78	4193075.30	183.83950 (17122701)
655776.78	4193075.30	147.41394 (17011208)	656076.78	4193075.30	110.24841 (17012908)
656376.78	4193075.30	105.02021 (17121219)	656676.78	4193075.30	97.17710 (17011509)
653676.78	4193375.30	94.15293 (14011709)	653976.78	4193375.30	111.17558 (17120203)
654276.78	4193375.30	139.60382 (17121504)	654576.78	4193375.30	171.47135 (15010804)
654876.78	4193375.30	220.05038 (15010507)	655176.78	4193375.30	302.95045 (17011609)
655476.78	4193375.30	261.87806 (17122920)	655776.78	4193375.30	180.40031 (17012908)
656076.78	4193375.30	170.37951 (17011509)	656376.78	4193375.30	97.87336 (17122619)
656676.78	4193375.30	76.56250 (17020824)	653676.78	4193675.30	94.72210 (17022506)
653976.78	4193675.30	117.85438 (17022506)	654276.78	4193675.30	153.69408 (17011605)
654576.78	4193675.30	224.55737 (17021308)	654876.78	4193675.30	308.97607 (17120517)
655176.78	4193675.30	543.21636 (17011609)	655476.78	4193675.30	376.08761 (17012908)
655776.78	4193675.30	215.01142 (17011509)	656076.78	4193675.30	132.82375 (17011303)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: VOL5 ***

INCLUDING SOURCE(S): VOL5 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656376.78	4193675.30	99.76755 (17010504)	656676.78	4193675.30	82.80823 (17122519)
653676.78	4193975.30	97.64583 (17013107)	653976.78	4193975.30	122.19918 (17013107)
654276.78	4193975.30	157.91753 (17011121)	654576.78	4193975.30	228.43921 (17011121)
654876.78	4193975.30	362.13374 (17122608)	655176.78	4193975.30	0.00000 (00000000)
655476.78	4193975.30	453.42976 (14011317)	655776.78	4193975.30	226.07577 (14021603)
656076.78	4193975.30	155.11321 (14022208)	656376.78	4193975.30	116.23941 (14022208)
656676.78	4193975.30	90.46873 (14022208)	653676.78	4194275.30	90.94864 (17122608)
653976.78	4194275.30	116.72562 (16012009)	654276.78	4194275.30	150.59937 (17121007)
654576.78	4194275.30	181.47065 (17121402)	654876.78	4194275.30	231.20474 (17122909)
655176.78	4194275.30	336.70286 (17012717)	655476.78	4194275.30	288.30580 (17021405)
655776.78	4194275.30	199.10804 (17121119)	656076.78	4194275.30	137.47930 (13020908)
656376.78	4194275.30	102.67010 (13121420)	656676.78	4194275.30	81.55658 (15122617)
653676.78	4194575.30	89.04634 (17020404)	653976.78	4194575.30	95.52301 (17121402)
654276.78	4194575.30	99.41137 (17120208)	654576.78	4194575.30	121.03893 (16011405)
654876.78	4194575.30	160.84805 (17022607)	655176.78	4194575.30	190.75700 (17012924)
655476.78	4194575.30	194.78502 (17022508)	655776.78	4194575.30	157.22112 (17012601)
656076.78	4194575.30	119.95264 (17022407)	656376.78	4194575.30	94.28249 (17121119)
656676.78	4194575.30	75.71508 (14022307)	653676.78	4194875.30	59.84115 (17120624)
653976.78	4194875.30	68.59683 (17120208)	654276.78	4194875.30	81.73099 (17123021)
654576.78	4194875.30	121.39950 (13011909)	654876.78	4194875.30	118.92986 (17120219)
655176.78	4194875.30	128.70001 (17120618)	655476.78	4194875.30	127.71908 (17120207)
655776.78	4194875.30	115.49545 (17021405)	656076.78	4194875.30	100.86093 (17122321)
656376.78	4194875.30	96.97816 (13121109)	656676.78	4194875.30	76.21198 (13103008)
653676.78	4195175.30	50.86938 (15122623)	653976.78	4195175.30	60.48338 (17123021)
654276.78	4195175.30	88.57811 (13011909)	654576.78	4195175.30	86.10309 (17022607)
654876.78	4195175.30	87.16100 (15021408)	655176.78	4195175.30	94.75790 (17120206)
655476.78	4195175.30	99.64914 (17012905)	655776.78	4195175.30	95.11025 (17022508)
656076.78	4195175.30	82.60171 (17022324)	656376.78	4195175.30	75.89894 (17122321)
656676.78	4195175.30	85.02356 (13121109)	653676.78	4195475.30	47.11854 (17123021)
653976.78	4195475.30	55.60883 (13011909)	654276.78	4195475.30	87.28321 (13011909)
654576.78	4195475.30	73.37084 (17120219)	654876.78	4195475.30	75.71666 (17012717)
655176.78	4195475.30	82.00115 (14012009)	655476.78	4195475.30	70.94635 (17012905)
655776.78	4195475.30	72.85398 (17022508)	656076.78	4195475.30	67.96984 (17121904)
656376.78	4195475.30	63.66304 (17022706)	656676.78	4195475.30	62.57937 (13121809)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: VOL6 ***

INCLUDING SOURCE(S): VOL6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
656165.71	4192787.75	107.63569	(17013024)	656126.40	4192764.99	98.15262 (17013024)
656103.65	4192731.89	98.06730	(17011203)	656093.30	4192690.51	99.95252 (17122917)
656217.44	4192771.20	104.61900	(17122701)	656279.50	4192760.85	99.46423 (17122701)
656341.57	4192727.75	97.68154	(17122319)	656366.40	4192707.06	96.95153 (17012804)
653815.06	4193437.51	71.60229	(17021420)	653776.43	4193429.79	69.99144 (17021420)
653798.32	4193413.05	69.94969	(17021420)	653708.18	4193118.16	62.73391 (17120517)
653730.07	4193102.71	62.24311	(17120517)	653753.25	4193085.97	60.02986 (14021108)
653800.90	4193053.77	59.51014	(15010907)	653882.02	4192964.92	60.13786 (13012105)
653907.78	4192962.34	61.44421	(13012105)	653945.12	4192954.62	61.99529 (13010908)
654067.45	4192886.37	64.18133	(13010906)	654108.66	4192861.90	64.48845 (13021704)
654140.85	4192841.30	64.90171	(14021223)	654376.51	4192702.22	66.16194 (14022101)
654399.69	4192673.89	66.65058	(15122802)	654024.74	4193417.88	77.89431 (17121504)
653831.84	4193501.47	73.11622	(17120203)	653915.64	4193528.15	77.25268 (17120203)
653813.62	4193608.32	76.58533	(17021308)	653676.78	4192475.30	47.91945 (13021704)
653976.78	4192475.30	52.78498	(16020321)	654276.78	4192475.30	57.81860 (15122802)
654576.78	4192475.30	64.20912	(14021122)	654876.78	4192475.30	100.23531 (14011509)
655176.78	4192475.30	75.01010	(14021105)	655476.78	4192475.30	82.62197 (17011609)
655776.78	4192475.30	97.54747	(17123009)	656076.78	4192475.30	117.12945 (15041307)
656376.78	4192475.30	78.86069	(17122701)	656676.78	4192475.30	76.88682 (17012903)
653676.78	4192775.30	52.62938	(13012105)	653976.78	4192775.30	59.10135 (13010906)
654276.78	4192775.30	66.66961	(16020321)	654576.78	4192775.30	70.02297 (14032824)
654876.78	4192775.30	83.36217	(17121508)	655176.78	4192775.30	94.89169 (17122918)
655476.78	4192775.30	98.18362	(14012501)	655776.78	4192775.30	120.31306 (17123009)
656076.78	4192775.30	106.97703	(17122917)	656376.78	4192775.30	100.46036 (17012804)
656676.78	4192775.30	93.54150	(17020801)	653676.78	4193075.30	60.52316 (17120517)
653976.78	4193075.30	64.70360	(17123107)	654276.78	4193075.30	75.68613 (14120608)
654576.78	4193075.30	87.74574	(16020321)	654876.78	4193075.30	101.40526 (15010507)
655176.78	4193075.30	122.55748	(14011509)	655476.78	4193075.30	123.56338 (17011302)
655776.78	4193075.30	153.83641	(17123009)	656076.78	4193075.30	134.35436 (17013024)
656376.78	4193075.30	122.99375	(17012903)	656676.78	4193075.30	105.87628 (17120120)
653676.78	4193375.30	65.73684	(17021420)	653976.78	4193375.30	76.32111 (17121504)
654276.78	4193375.30	85.07577	(15010907)	654576.78	4193375.30	100.70430 (17020505)
654876.78	4193375.30	122.66095	(16020321)	655176.78	4193375.30	143.04724 (13020205)
655476.78	4193375.30	164.75431	(14021105)	655776.78	4193375.30	207.05971 (17123009)
656076.78	4193375.30	182.67433	(17122701)	656376.78	4193375.30	154.10449 (17020801)
656676.78	4193375.30	125.39768	(17012908)	653676.78	4193675.30	91.53160 (14011709)
653976.78	4193675.30	85.25624	(17021308)	654276.78	4193675.30	99.82449 (17120203)
654576.78	4193675.30	123.64571	(17121504)	654876.78	4193675.30	145.57312 (13012121)
655176.78	4193675.30	186.97834	(17121108)	655476.78	4193675.30	230.62550 (17123007)
655776.78	4193675.30	301.14041	(17123009)	656076.78	4193675.30	259.91108 (17122920)

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*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: VOL6 ***
INCLUDING SOURCE(S): VOL6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M) (YYMMDDHH)	CONC (YYMMDDHH)	X-COORD (M) (YYMMDDHH)	Y-COORD (M) (YYMMDDHH)	CONC (YYMMDDHH)
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656376.78	4193675.30	197.12806 (17012908)	656676.78	4193675.30	154.22550 (17121219)
653676.78	4193975.30	72.37651 (17022506)	653976.78	4193975.30	83.81068 (17013105)
654276.78	4193975.30	105.12017 (17013105)	654576.78	4193975.30	133.70390 (17121823)
654876.78	4193975.30	186.79126 (17021308)	655176.78	4193975.30	246.06885 (17120517)
655476.78	4193975.30	354.92362 (16010309)	655776.78	4193975.30	511.93203 (17123009)
656076.78	4193975.30	357.76961 (17012908)	656376.78	4193975.30	290.61433 (17011509)
656676.78	4193975.30	146.76301 (17121906)	653676.78	4194275.30	71.17923 (17011505)
653976.78	4194275.30	85.15052 (17011505)	654276.78	4194275.30	104.69733 (17013008)
654576.78	4194275.30	137.65218 (17013008)	654876.78	4194275.30	187.90006 (17013008)
655176.78	4194275.30	279.64017 (17121807)	655476.78	4194275.30	506.16075 (17121423)
655776.78	4194275.30	0.00000 (00000000)	656076.78	4194275.30	457.13393 (17122519)
656376.78	4194275.30	243.16987 (17122621)	656676.78	4194275.30	159.83004 (17122621)
653676.78	4194575.30	74.22835 (17121322)	653976.78	4194575.30	87.65481 (17121322)
654276.78	4194575.30	105.98990 (17120702)	654576.78	4194575.30	124.54586 (17122608)
654876.78	4194575.30	179.07150 (17122608)	655176.78	4194575.30	272.15205 (17121007)
655476.78	4194575.30	337.85812 (17123024)	655776.78	4194575.30	533.69207 (17012924)
656076.78	4194575.30	387.49646 (17022407)	656376.78	4194575.30	231.95413 (13020908)
656676.78	4194575.30	155.71736 (13020204)	653676.78	4194875.30	66.65361 (17122608)
653976.78	4194875.30	100.48564 (16012009)	654276.78	4194875.30	120.96527 (16012009)
654576.78	4194875.30	130.68394 (17020404)	654876.78	4194875.30	137.02107 (17043004)
655176.78	4194875.30	167.37545 (17123024)	655476.78	4194875.30	218.10294 (17022607)
655776.78	4194875.30	274.54237 (17122408)	656076.78	4194875.30	233.65906 (17012921)
656376.78	4194875.30	184.34545 (14011617)	656676.78	4194875.30	144.74924 (17121119)
653676.78	4195175.30	77.42340 (16012009)	653976.78	4195175.30	77.31241 (17020404)
654276.78	4195175.30	83.81911 (17043004)	654576.78	4195175.30	82.77871 (17121808)
654876.78	4195175.30	100.30395 (17010902)	655176.78	4195175.30	135.99324 (13011909)
655476.78	4195175.30	152.21546 (17120219)	655776.78	4195175.30	179.91492 (17122408)
656076.78	4195175.30	167.00153 (17022508)	656376.78	4195175.30	146.40542 (17022706)
656676.78	4195175.30	113.20030 (14011617)	653676.78	4195475.30	55.73789 (17043004)
653976.78	4195475.30	53.95106 (17120624)	654276.78	4195475.30	59.70506 (15021501)
654576.78	4195475.30	69.67280 (14121304)	654876.78	4195475.30	85.22703 (16022108)
655176.78	4195475.30	104.62877 (17022607)	655476.78	4195475.30	107.36364 (15021408)
655776.78	4195475.30	130.22964 (17122408)	656076.78	4195475.30	117.08769 (17120207)
656376.78	4195475.30	105.62368 (17121904)	656676.78	4195475.30	100.63577 (17012601)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: VOL7 ***
INCLUDING SOURCE(S): VOL7 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656165.71	4192787.75	123.48633	(17013024)	656126.40	4192764.99	121.64624 (17013024)
656103.65	4192731.89	114.08664	(17011203)	656093.30	4192690.51	115.65297 (17122917)
656217.44	4192771.20	120.18079	(17122701)	656279.50	4192760.85	115.75260 (17012804)
656341.57	4192727.75	114.56219	(17122620)	656366.40	4192707.06	112.40180 (17122620)
653815.06	4193437.51	74.13840	(14011709)	653776.43	4193429.79	72.34313 (14011709)
653798.32	4193413.05	78.00847	(14011709)	653708.18	4193118.16	58.32899 (17120203)
653730.07	4193102.71	60.54300	(17120203)	653753.25	4193085.97	61.72998 (17120203)
653800.90	4193053.77	62.82796	(17021420)	653882.02	4192964.92	62.69977 (17121504)
653907.78	4192962.34	64.26361	(17121504)	653945.12	4192954.62	65.61361 (17121504)
654067.45	4192886.37	64.44453	(14021108)	654108.66	4192861.90	64.50296 (15010907)
654140.85	4192841.30	64.73010	(17123107)	654376.51	4192702.22	69.01596 (13021704)
654399.69	4192673.89	69.14195	(14021223)	654024.74	4193417.88	89.69157 (14011709)
653831.84	4193501.47	66.78400	(17012823)	653915.64	4193528.15	70.60993 (17013105)
653813.62	4193608.32	66.79509	(17022506)	653676.78	4192475.30	47.86457 (13012121)
653976.78	4192475.30	54.50909	(14120608)	654276.78	4192475.30	61.77153 (13013108)
654576.78	4192475.30	68.29164	(15122802)	654876.78	4192475.30	75.01072 (13020205)
655176.78	4192475.30	91.48020	(14011509)	655476.78	4192475.30	88.56447 (15010901)
655776.78	4192475.30	96.12221	(17123009)	656076.78	4192475.30	127.16718 (15041307)
656376.78	4192475.30	92.90339	(17012804)	656676.78	4192475.30	85.41081 (17020801)
653676.78	4192775.30	54.36021	(17121504)	653976.78	4192775.30	59.03348 (15010907)
654276.78	4192775.30	68.35616	(13010908)	654576.78	4192775.30	78.85149 (13013108)
654876.78	4192775.30	88.52104	(15122802)	655176.78	4192775.30	97.90069 (13020306)
655476.78	4192775.30	111.18253	(13012120)	655776.78	4192775.30	118.00527 (17123009)
656076.78	4192775.30	124.47689	(17122917)	656376.78	4192775.30	116.72032 (17122920)
656676.78	4192775.30	98.06835	(17120120)	653676.78	4193075.30	58.95494 (17120203)
653976.78	4193075.30	67.48269	(17013106)	654276.78	4193075.30	79.52343 (17120517)
654576.78	4193075.30	88.88410	(13012121)	654876.78	4193075.30	105.46383 (13013108)
655176.78	4193075.30	125.09175	(15010507)	655476.78	4193075.30	145.79757 (17122918)
655776.78	4193075.30	162.69009	(17011609)	656076.78	4193075.30	163.86185 (17013024)
656376.78	4193075.30	144.93235	(17020801)	656676.78	4193075.30	117.12360 (17012908)
653676.78	4193375.30	76.43556	(14011709)	653976.78	4193375.30	87.30319 (14011709)
654276.78	4193375.30	89.57042	(17021308)	654576.78	4193375.30	103.37476 (17021420)
654876.78	4193375.30	124.43244	(17120517)	655176.78	4193375.30	153.27972 (14021223)
655476.78	4193375.30	195.00156	(13020205)	655776.78	4193375.30	258.01123 (17011609)
656076.78	4193375.30	229.12119	(17122318)	656376.78	4193375.30	176.32428 (17012908)
656676.78	4193375.30	140.10775	(17121219)	653676.78	4193675.30	62.31645 (17022506)
653976.78	4193675.30	76.49069	(17022506)	654276.78	4193675.30	89.17420 (17011605)
654576.78	4193675.30	111.67912	(17011605)	654876.78	4193675.30	143.65607 (17123023)
655176.78	4193675.30	195.44765	(17021420)	655476.78	4193675.30	269.93175 (15010804)
655776.78	4193675.30	434.50877	(17011609)	656076.78	4193675.30	330.29540 (17011208)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: VOL7 ***
INCLUDING SOURCE(S): VOL7 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656376.78	4193675.30	259.45604	(17011509)	656676.78	4193675.30	131.63356 (17121906)
653676.78	4193975.30	66.25424	(17011505)	653976.78	4193975.30	78.49992 (17011505)
654276.78	4193975.30	95.05491	(17011505)	654576.78	4193975.30	118.05521 (17011505)
654876.78	4193975.30	153.22251	(17011505)	655176.78	4193975.30	212.74597 (17011505)
655476.78	4193975.30	345.08883	(17121203)	655776.78	4193975.30	0.00000 (00000000)
656076.78	4193975.30	458.99977	(14022208)	656376.78	4193975.30	229.45116 (14022208)
656676.78	4193975.30	147.45504	(14022208)	653676.78	4194275.30	64.36044 (17121322)
653976.78	4194275.30	74.17672	(17120702)	654276.78	4194275.30	83.11943 (17120702)
654576.78	4194275.30	111.44634	(17122608)	654876.78	4194275.30	147.97018 (17011201)
655176.78	4194275.30	202.41159	(17020404)	655476.78	4194275.30	231.57214 (17123024)
655776.78	4194275.30	384.66634	(17012717)	656076.78	4194275.30	310.87721 (17022706)
656376.78	4194275.30	198.32943	(17121119)	656676.78	4194275.30	141.62944 (14011317)
653676.78	4194575.30	68.37352	(16012009)	653976.78	4194575.30	97.30712 (16012009)
654276.78	4194575.30	102.32889	(16012009)	654576.78	4194575.30	105.48085 (17020404)
654876.78	4194575.30	106.12448	(17043004)	655176.78	4194575.30	130.11227 (17123024)
655476.78	4194575.30	165.51623	(17122724)	655776.78	4194575.30	202.04293 (17012924)
656076.78	4194575.30	211.55715	(17022508)	656376.78	4194575.30	159.66844 (17122321)
656676.78	4194575.30	122.26227	(17123020)	653676.78	4194875.30	64.79325 (16012009)
653976.78	4194875.30	65.32438	(17020404)	654276.78	4194875.30	70.62093 (17043004)
654576.78	4194875.30	71.25208	(17120208)	654876.78	4194875.30	84.02485 (17010902)
655176.78	4194875.30	110.22551	(13011909)	655476.78	4194875.30	129.77883 (17120219)
655776.78	4194875.30	137.43077	(17012924)	656076.78	4194875.30	135.19588 (17121401)
656376.78	4194875.30	126.45183	(17021405)	656676.78	4194875.30	105.66735 (17122321)
653676.78	4195175.30	49.83520	(17043004)	653976.78	4195175.30	48.21383 (17120624)
654276.78	4195175.30	52.36131	(15021501)	654576.78	4195175.30	59.88170 (14121304)
654876.78	4195175.30	73.58048	(17020506)	655176.78	4195175.30	82.04855 (17022607)
655476.78	4195175.30	88.58016	(15021408)	655776.78	4195175.30	96.93055 (17120618)
656076.78	4195175.30	103.86963	(17012905)	656376.78	4195175.30	93.63787 (17022508)
656676.78	4195175.30	87.50539	(17022706)	653676.78	4195475.30	37.94190 (17121808)
653976.78	4195475.30	40.96592	(15022507)	654276.78	4195475.30	46.59711 (14121304)
654576.78	4195475.30	56.52027	(17020506)	654876.78	4195475.30	95.27053 (13011909)
655176.78	4195475.30	73.74567	(17120106)	655476.78	4195475.30	75.70082 (17012717)
655776.78	4195475.30	80.38679	(14012009)	656076.78	4195475.30	75.25228 (17012905)
656376.78	4195475.30	78.83680	(17022508)	656676.78	4195475.30	68.66250 (17021405)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: VOL8 ***
INCLUDING SOURCE(S): VOL8 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656165.71	4192787.75	110.92996 (17122820)	656126.40	4192764.99	115.84215 (17011609)
656103.65	4192731.89	115.06005 (17011609)	656093.30	4192690.51	111.71362 (17011609)
656217.44	4192771.20	115.82371 (17123009)	656279.50	4192760.85	123.45462 (17123009)
656341.57	4192727.75	135.11010 (15041307)	656366.40	4192707.06	142.62368 (15041307)
653815.06	4193437.51	51.03948 (17012823)	653776.43	4193429.79	50.12100 (17013105)
653798.32	4193413.05	51.47648 (17012823)	653708.18	4193118.16	62.25411 (14011709)
653730.07	4193102.71	57.64014 (14011709)	653753.25	4193085.97	52.11243 (14011709)
653800.90	4193053.77	49.80693 (17021308)	653882.02	4192964.92	50.93463 (17021420)
653907.78	4192962.34	51.66708 (17021420)	653945.12	4192954.62	52.14620 (17021420)
654067.45	4192886.37	52.73495 (17121504)	654108.66	4192861.90	54.91688 (17121504)
654140.85	4192841.30	54.47448 (17121504)	654376.51	4192702.22	54.98224 (13012121)
654399.69	4192673.89	55.29824 (13012105)	654024.74	4193417.88	68.28172 (14011709)
653831.84	4193501.47	53.66436 (17013105)	653915.64	4193528.15	55.71280 (17013105)
653813.62	4193608.32	53.88651 (17022506)	653676.78	4192475.30	42.22489 (17120517)
653976.78	4192475.30	44.43638 (17123107)	654276.78	4192475.30	49.67453 (13010908)
654576.78	4192475.30	55.61926 (14021223)	654876.78	4192475.30	62.36879 (14022101)
655176.78	4192475.30	69.17190 (15010507)	655476.78	4192475.30	90.51175 (14011509)
655776.78	4192475.30	80.60625 (13012120)	656076.78	4192475.30	94.69380 (17011609)
656376.78	4192475.30	130.26975 (15041307)	656676.78	4192475.30	89.39621 (17013024)
653676.78	4192775.30	44.46781 (17013106)	653976.78	4192775.30	50.94924 (17121504)
654276.78	4192775.30	54.27674 (15010907)	654576.78	4192775.30	61.72840 (13012105)
654876.78	4192775.30	69.61496 (14021223)	655176.78	4192775.30	79.56205 (14022101)
655476.78	4192775.30	89.87182 (13020205)	655776.78	4192775.30	100.91793 (17122918)
656076.78	4192775.30	118.22516 (17011609)	656376.78	4192775.30	149.29541 (15041307)
656676.78	4192775.30	104.22321 (17122319)	653676.78	4193075.30	54.74735 (14011709)
653976.78	4193075.30	53.04051 (17120203)	654276.78	4193075.30	60.74370 (17123002)
654576.78	4193075.30	70.22337 (17121504)	654876.78	4193075.30	78.03052 (17123107)
655176.78	4193075.30	91.69821 (13010906)	655476.78	4193075.30	108.08777 (15122802)
655776.78	4193075.30	118.20846 (15022608)	656076.78	4193075.30	138.28020 (17011609)
656376.78	4193075.30	162.02436 (15041307)	656676.78	4193075.30	137.93587 (17122920)
653676.78	4193375.30	50.39296 (14011709)	653976.78	4193375.30	73.22185 (14011709)
654276.78	4193375.30	82.97357 (14011709)	654576.78	4193375.30	79.81469 (17021308)
654876.78	4193375.30	91.47539 (17021420)	655176.78	4193375.30	108.64630 (17120517)
655476.78	4193375.30	128.61838 (13022803)	655776.78	4193375.30	154.53415 (13012124)
656076.78	4193375.30	182.41296 (13012120)	656376.78	4193375.30	204.65104 (17122917)
656676.78	4193375.30	167.87376 (17011208)	653676.78	4193675.30	49.02334 (17122902)
653976.78	4193675.30	57.82362 (17022506)	654276.78	4193675.30	67.87552 (17022506)
654576.78	4193675.30	79.69834 (17011605)	654876.78	4193675.30	95.08702 (17012823)
655176.78	4193675.30	119.19200 (17123023)	655476.78	4193675.30	153.92930 (17021308)
655776.78	4193675.30	200.06238 (14120904)	656076.78	4193675.30	270.96390 (14021408)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: VOL8 ***

INCLUDING SOURCE(S): VOL8 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
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656376.78	4193675.30	294.99054	(17122318)	656676.78	4193675.30	218.09406 (17022501)
653676.78	4193975.30	51.22592	(17011505)	653976.78	4193975.30	58.89934 (17011505)
654276.78	4193975.30	68.65430	(17011505)	654576.78	4193975.30	81.14298 (17011505)
654876.78	4193975.30	98.22349	(17011505)	655176.78	4193975.30	122.45590 (17011505)
655476.78	4193975.30	159.36113	(17011505)	655776.78	4193975.30	235.73699 (17121420)
656076.78	4193975.30	0.00000	(00000000)	656376.78	4193975.30	0.00000 (00000000)
656676.78	4193975.30	236.39341	(17122621)	653676.78	4194275.30	51.03519 (17011121)
653976.78	4194275.30	59.63963	(17121322)	654276.78	4194275.30	69.30559 (17121322)
654576.78	4194275.30	78.69900	(17120702)	654876.78	4194275.30	89.52429 (17120702)
655176.78	4194275.30	122.57614	(17122608)	655476.78	4194275.30	162.26801 (17011201)
655776.78	4194275.30	212.63028	(17121402)	656076.78	4194275.30	278.06360 (17122909)
656376.78	4194275.30	334.49533	(17022508)	656676.78	4194275.30	217.25633 (17121119)
653676.78	4194575.30	44.41430	(17122608)	653976.78	4194575.30	55.33489 (17122608)
654276.78	4194575.30	77.71849	(16012009)	654576.78	4194575.30	103.46407 (16012009)
654876.78	4194575.30	97.28859	(16012009)	655176.78	4194575.30	107.58891 (17121402)
655476.78	4194575.30	113.12988	(17120208)	655776.78	4194575.30	151.61947 (17122909)
656076.78	4194575.30	169.37834	(17120219)	656376.78	4194575.30	193.46587 (17012905)
656676.78	4194575.30	167.87510	(17022706)	653676.78	4194875.30	79.00912 (16012009)
653976.78	4194875.30	80.61209	(16012009)	654276.78	4194875.30	63.85113 (17020404)
654576.78	4194875.30	67.71110	(17121402)	654876.78	4194875.30	65.33459 (17120624)
655176.78	4194875.30	75.18514	(15022507)	655476.78	4194875.30	96.56699 (17122909)
655776.78	4194875.30	108.12682	(17022607)	656076.78	4194875.30	135.45499 (17012717)
656376.78	4194875.30	122.92921	(17012905)	656676.78	4194875.30	122.33908 (17122223)
653676.78	4195175.30	46.76632	(17020404)	653976.78	4195175.30	47.41485 (17121402)
654276.78	4195175.30	49.95521	(17043004)	654576.78	4195175.30	50.09492 (17121808)
654876.78	4195175.30	58.07807	(17123024)	655176.78	4195175.30	66.25573 (17011701)
655476.78	4195175.30	106.06932	(13011909)	655776.78	4195175.30	94.56101 (17120219)
656076.78	4195175.30	97.13510	(17122901)	656376.78	4195175.30	94.03461 (17012720)
656676.78	4195175.30	100.20066	(17022508)	653676.78	4195475.30	38.65292 (17043004)
653976.78	4195475.30	36.81991	(17120624)	654276.78	4195475.30	40.08882 (17120208)
654576.78	4195475.30	46.25005	(17123024)	654876.78	4195475.30	49.59952 (17020406)
655176.78	4195475.30	82.43494	(13011909)	655476.78	4195475.30	66.75967 (17022607)
655776.78	4195475.30	65.98158	(15122702)	656076.78	4195475.30	78.45199 (17020802)
656376.78	4195475.30	78.34112	(17012720)	656676.78	4195475.30	78.77003 (17121401)

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

NETWORK

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE
GRID-ID		

VOL1 1ST HIGHEST VALUE IS 21.49151 AT (653976.78, 4194275.30, 7.37, 7.37, 0.00) DC
2ND HIGHEST VALUE IS 20.35625 AT (654276.78, 4193975.30, 7.53, 7.53, 0.00) DC

3RD HIGHEST VALUE IS	12.82949 AT (654576.78, 4194275.30,	7.58,	7.58,	0.00)	DC
4TH HIGHEST VALUE IS	11.10116 AT (654576.78, 4193975.30,	6.91,	6.91,	0.00)	DC
5TH HIGHEST VALUE IS	8.56236 AT (653976.78, 4193975.30,	7.18,	7.18,	0.00)	DC
6TH HIGHEST VALUE IS	6.90676 AT (653976.78, 4194575.30,	7.01,	7.01,	0.00)	DC
7TH HIGHEST VALUE IS	5.85184 AT (654276.78, 4194575.30,	7.37,	7.37,	0.00)	DC
8TH HIGHEST VALUE IS	5.59383 AT (653676.78, 4194275.30,	6.79,	6.79,	0.00)	DC
9TH HIGHEST VALUE IS	4.90264 AT (654876.78, 4193975.30,	7.08,	7.08,	0.00)	DC
10TH HIGHEST VALUE IS	4.71237 AT (654876.78, 4194275.30,	7.52,	7.52,	0.00)	DC

VOL2 1ST HIGHEST VALUE IS	30.22087 AT (653976.78, 4193975.30,	7.18,	7.18,	0.00)	DC
2ND HIGHEST VALUE IS	23.57633 AT (654276.78, 4193675.30,	6.93,	6.93,	0.00)	DC
3RD HIGHEST VALUE IS	11.46580 AT (653976.78, 4193675.30,	7.53,	7.53,	0.00)	DC
4TH HIGHEST VALUE IS	10.03902 AT (654576.78, 4193675.30,	7.86,	7.86,	0.00)	DC
5TH HIGHEST VALUE IS	9.72115 AT (654576.78, 4193975.30,	6.91,	6.91,	0.00)	DC
6TH HIGHEST VALUE IS	6.56227 AT (653676.78, 4193975.30,	6.73,	6.73,	0.00)	DC
7TH HIGHEST VALUE IS	6.38844 AT (653976.78, 4194275.30,	7.37,	7.37,	0.00)	DC
8TH HIGHEST VALUE IS	5.44686 AT (653915.64, 4193528.15,	7.72,	7.72,	0.00)	DC
9TH HIGHEST VALUE IS	5.24683 AT (653813.62, 4193608.32,	7.37,	7.37,	0.00)	DC
10TH HIGHEST VALUE IS	4.98986 AT (654276.78, 4193375.30,	7.49,	7.49,	0.00)	DC

VOL3 1ST HIGHEST VALUE IS	9.38893 AT (655176.78, 4193975.30,	7.42,	7.42,	0.00)	DC
2ND HIGHEST VALUE IS	7.74540 AT (654276.78, 4194275.30,	7.48,	7.48,	0.00)	DC
3RD HIGHEST VALUE IS	7.52180 AT (655176.78, 4194275.30,	7.82,	7.82,	0.00)	DC
4TH HIGHEST VALUE IS	7.05291 AT (654876.78, 4193675.30,	6.80,	6.80,	0.00)	DC
5TH HIGHEST VALUE IS	6.53832 AT (654276.78, 4193975.30,	7.53,	7.53,	0.00)	DC
6TH HIGHEST VALUE IS	5.83216 AT (654576.78, 4193675.30,	7.86,	7.86,	0.00)	DC
7TH HIGHEST VALUE IS	5.64908 AT (654576.78, 4194575.30,	7.62,	7.62,	0.00)	DC
8TH HIGHEST VALUE IS	5.09527 AT (655176.78, 4193675.30,	6.83,	6.83,	0.00)	DC
9TH HIGHEST VALUE IS	4.69472 AT (654876.78, 4194575.30,	7.80,	7.80,	0.00)	DC
10TH HIGHEST VALUE IS	4.11276 AT (654276.78, 4194575.30,	7.37,	7.37,	0.00)	DC

VOL4 1ST HIGHEST VALUE IS	11.02244 AT (655776.78, 4194275.30,	8.72,	8.72,	0.00)	DC
2ND HIGHEST VALUE IS	8.98455 AT (655476.78, 4193975.30,	8.08,	8.08,	0.00)	DC
3RD HIGHEST VALUE IS	6.77229 AT (655776.78, 4194575.30,	8.28,	8.28,	0.00)	DC
4TH HIGHEST VALUE IS	6.58738 AT (655176.78, 4193975.30,	7.42,	7.42,	0.00)	DC
5TH HIGHEST VALUE IS	6.33777 AT (654876.78, 4194575.30,	7.80,	7.80,	0.00)	DC
6TH HIGHEST VALUE IS	6.27094 AT (654876.78, 4194275.30,	7.52,	7.52,	0.00)	DC
7TH HIGHEST VALUE IS	6.15012 AT (655776.78, 4193975.30,	8.61,	8.61,	0.00)	DC
8TH HIGHEST VALUE IS	4.34969 AT (656076.78, 4194275.30,	8.85,	8.85,	0.00)	DC
9TH HIGHEST VALUE IS	4.15694 AT (655176.78, 4194875.30,	8.10,	8.10,	0.00)	DC
10TH HIGHEST VALUE IS	3.62973 AT (656076.78, 4193975.30,	9.09,	9.09,	0.00)	DC

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

NETWORK

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE
GRID-ID		

VOL5 1ST HIGHEST VALUE IS 24.60904 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
2ND HIGHEST VALUE IS 22.77387 AT (655176.78, 4193675.30, 6.83, 6.83, 0.00) DC
3RD HIGHEST VALUE IS 18.12749 AT (655476.78, 4193675.30, 7.19, 7.19, 0.00) DC
4TH HIGHEST VALUE IS 10.54278 AT (654876.78, 4193975.30, 7.08, 7.08, 0.00) DC
5TH HIGHEST VALUE IS 6.94658 AT (655776.78, 4193675.30, 8.47, 8.47, 0.00) DC
6TH HIGHEST VALUE IS 6.36488 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
7TH HIGHEST VALUE IS 6.33987 AT (654876.78, 4193675.30, 6.80, 6.80, 0.00) DC
8TH HIGHEST VALUE IS 6.04504 AT (655176.78, 4194275.30, 7.82, 7.82, 0.00) DC
9TH HIGHEST VALUE IS 5.31432 AT (654876.78, 4194275.30, 7.52, 7.52, 0.00) DC
10TH HIGHEST VALUE IS 5.16642 AT (655476.78, 4193375.30, 7.42, 7.42, 0.00) DC

VOL6 1ST HIGHEST VALUE IS 22.58313 AT (656076.78, 4194275.30, 8.85, 8.85, 0.00) DC
2ND HIGHEST VALUE IS 12.63382 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC
3RD HIGHEST VALUE IS 11.75670 AT (655776.78, 4194575.30, 8.28, 8.28, 0.00) DC
4TH HIGHEST VALUE IS 9.86538 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
5TH HIGHEST VALUE IS 9.30999 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
6TH HIGHEST VALUE IS 8.57252 AT (655476.78, 4194575.30, 8.38, 8.38, 0.00) DC
7TH HIGHEST VALUE IS 6.31736 AT (656076.78, 4194575.30, 8.25, 8.25, 0.00) DC
8TH HIGHEST VALUE IS 6.26428 AT (656376.78, 4194275.30, 9.45, 9.45, 0.00) DC
9TH HIGHEST VALUE IS 5.22256 AT (656376.78, 4193975.30, 9.55, 9.55, 0.00) DC
10TH HIGHEST VALUE IS 4.96098 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC

VOL7 1ST HIGHEST VALUE IS 33.77625 AT (656076.78, 4193975.30, 9.09, 9.09, 0.00) DC
2ND HIGHEST VALUE IS 12.93780 AT (656076.78, 4193675.30, 8.79, 8.79, 0.00) DC
3RD HIGHEST VALUE IS 12.86749 AT (655776.78, 4193675.30, 8.47, 8.47, 0.00) DC
4TH HIGHEST VALUE IS 10.37052 AT (655476.78, 4193975.30, 8.08, 8.08, 0.00) DC
5TH HIGHEST VALUE IS 9.76372 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
6TH HIGHEST VALUE IS 7.23169 AT (656376.78, 4193975.30, 9.55, 9.55, 0.00) DC
7TH HIGHEST VALUE IS 6.44784 AT (655476.78, 4194275.30, 8.27, 8.27, 0.00) DC
8TH HIGHEST VALUE IS 6.37687 AT (656376.78, 4193675.30, 9.38, 9.38, 0.00) DC
9TH HIGHEST VALUE IS 6.03451 AT (656076.78, 4194275.30, 8.85, 8.85, 0.00) DC
10TH HIGHEST VALUE IS 5.06718 AT (655476.78, 4193675.30, 7.19, 7.19, 0.00) DC

VOL8 1ST HIGHEST VALUE IS 11.35749 AT (656376.78, 4193675.30, 9.38, 9.38, 0.00) DC
2ND HIGHEST VALUE IS 11.07294 AT (656676.78, 4193975.30, 9.29, 9.29, 0.00) DC
3RD HIGHEST VALUE IS 9.97359 AT (656076.78, 4194275.30, 8.85, 8.85, 0.00) DC
4TH HIGHEST VALUE IS 9.02235 AT (656376.78, 4194275.30, 9.45, 9.45, 0.00) DC
5TH HIGHEST VALUE IS 7.47700 AT (656676.78, 4193675.30, 9.14, 9.14, 0.00) DC
6TH HIGHEST VALUE IS 7.02094 AT (656076.78, 4193675.30, 8.79, 8.79, 0.00) DC
7TH HIGHEST VALUE IS 5.83982 AT (655776.78, 4193975.30, 8.61, 8.61, 0.00) DC
8TH HIGHEST VALUE IS 4.85515 AT (655776.78, 4194275.30, 8.72, 8.72, 0.00) DC
9TH HIGHEST VALUE IS 4.56950 AT (656676.78, 4194275.30, 9.51, 9.51, 0.00) DC
10TH HIGHEST VALUE IS 3.49818 AT (656376.78, 4193375.30, 8.47, 8.47, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

DC = DISCCART

DP = DISCPOLR

*** AERMOD - VERSION 19191 *** *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 12/10/24

*** AERMET - VERSION 18081 *** ***

*** 10:09:04

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	DATE	AVERAGE CONC	RECEPTOR	ZELEV	ZHILL
ZFLAG)	OF TYPE	GRID-ID	(XR, YR,		
VOL1	HIGH	1ST HIGH VALUE IS	575.05892 ON 17122608: AT (	653976.78, 4194275.30,	7.37, 7.37,
0.00)	DC				
VOL2	HIGH	1ST HIGH VALUE IS	675.82510 ON 17011201: AT (	653976.78, 4193975.30,	7.18, 7.18,
0.00)	DC				
VOL3	HIGH	1ST HIGH VALUE IS	204.10816 ON 17021308: AT (	654276.78, 4193975.30,	7.53, 7.53,
0.00)	DC				
VOL4	HIGH	1ST HIGH VALUE IS	229.14771 ON 17122701: AT (	655476.78, 4193975.30,	8.08, 8.08,
0.00)	DC				
VOL5	HIGH	1ST HIGH VALUE IS	543.21636 ON 17011609: AT (	655176.78, 4193675.30,	6.83, 6.83,
0.00)	DC				
VOL6	HIGH	1ST HIGH VALUE IS	533.69207 ON 17012924: AT (	655776.78, 4194575.30,	8.28, 8.28,
0.00)	DC				
VOL7	HIGH	1ST HIGH VALUE IS	458.99977 ON 14022208: AT (	656076.78, 4193975.30,	9.09, 9.09,
0.00)	DC				
VOL8	HIGH	1ST HIGH VALUE IS	334.49533 ON 17022508: AT (	656376.78, 4194275.30,	9.45, 9.45,
0.00)	DC				

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

DC = DISCCART

DP = DISCPOLR

*** AERMOD - VERSION 19191 *** C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\South S *** 12/10/24

*** AERMET - VERSION 18081 ***

*** 10:09:04

PAGE 44

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 11 Warning Message(s)

A Total of 971 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 442 Calm Hours Identified

A Total of 529 Missing Hours Identified (1.21 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186	90	MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used	0.50
ME W187	90	MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET	
MX W420	34276	METQA: Wind Speed Out-of-Range. KURDAT =	16112904
MX W420	34282	METQA: Wind Speed Out-of-Range. KURDAT =	16112910
MX W420	34288	METQA: Wind Speed Out-of-Range. KURDAT =	16112916
MX W420	34294	METQA: Wind Speed Out-of-Range. KURDAT =	16112922
MX W420	34300	METQA: Wind Speed Out-of-Range. KURDAT =	16113004
MX W420	40768	METQA: Wind Speed Out-of-Range. KURDAT =	17082616
MX W420	40792	METQA: Wind Speed Out-of-Range. KURDAT =	17082716
MX W420	40798	METQA: Wind Speed Out-of-Range. KURDAT =	17082722
MX W420	40804	METQA: Wind Speed Out-of-Range. KURDAT =	17082804

*** AERMOD Finishes Successfully ***

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Appendix 3 – HARP2 Output Files:

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCAcute
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Exposure duration are only adjusted for cancer assessments

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating acute risk

Acute risk breakdown by pollutant and receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-

977GSBU)\Documents\HRA\SSCC_FEIR\HARP2\SSSC FEIR\hra\Acute RiskNCAcuteRisk.csv
Acute risk total by receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-
977GSBU)\Documents\HRA\SSCC_FEIR\HARP2\SSSC FEIR\hra\Acute RiskNCAcuteRiskSumByRec.csv
HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCChronic
Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Exposure duration are only adjusted for cancer assessments

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

HOME GROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden

Fraction leafy: 0.137

Fraction exposed: 0.137

Fraction protected: 0.137

Fraction root: 0.137

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating chronic risk

Chronic risk breakdown by pollutant and receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_FEIR\HARP2\SSSC FEIR\hra\Chronic RiskNCChronicRisk.csv

Chronic risk total by receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_FEIR\HARP2\SSSC FEIR\hra\Chronic RiskNCChronicRiskSumByRec.csv

HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 70

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 0
16 to 70 Years Bin: 54

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

Worker adjustment factors enabled: NO

****Fraction at time at home****
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_FEIR\HARP2\SSSC FEIR\hra\Residential CancerCancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_FEIR\HARP2\SSSC FEIR\hra\Residential CancerCancerRiskSumByRec.csv
HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16
Total Exposure Duration: 40

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 40

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****
Worker adjustment factors enabled: NO

****Fraction at time at home****
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_FEIR\HARP2\SSSC FEIR\hra\Worker CancerCancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_FEIR\HARP2\SSSC FEIR\hra\Worker CancerCancerRiskSumByRec.csv
HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: NCChronic
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER
Exposure duration are only adjusted for cancer assessments

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating chronic risk

Chronic risk breakdown by pollutant and receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_RDEIR_cons\SSSC-CONSTR\hra\CHRONICNCChronicRisk.csv

Chronic risk total by receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_RDEIR_cons\SSSC-CONSTR\hra\CHRONICNCChronicRiskSumByRec.csv

HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 15

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 13
16<30 Years Bin: 0
16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

****Fraction at time at home****
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_RDEIR_cons\SSSC-CONSTR\hra\RES CANCERCancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_RDEIR_cons\SSSC-CONSTR\hra\RES CANCERCancerRiskSumByRec.csv
HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: Cancer
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16
Total Exposure Duration: 15

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 15

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: Moderate8HR

****Worker Adjustment Factors****
Worker adjustment factors enabled: NO

****Fraction at time at home****
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_RDEIR_cons\SSSC-CONSTR\hra\WORK CANCERCancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-977GSBU)\Documents\HRA\SSCC_RDEIR_cons\SSSC-CONSTR\hra\WORK CANCERCancerRiskSumByRec.csv
HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: NCAcute
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER
Exposure duration are only adjusted for cancer assessments

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-

977GSBU)\Documents\HRA\SSCC_RDEIR_cons\SSSC-CONSTR\hra\ACUTENCAcuteRisk.csv

Acute risk total by receptor saved to: C:\Users\Smith\Dropbox\My PC (DESKTOP-

977GSBU)\Documents\HRA\SSCC_RDEIR_cons\SSSC-CONSTR\hra\ACUTENCAcuteRiskSumByRec.csv

HRA ran successfully

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APPENDIX C

Draft EIR Comments (2021)

**BLUM COLLINS & HO, LLP
ATTORNEYS AT LAW
AON CENTER
707 WILSHIRE BLVD., SUITE 4880
LOS ANGELES, CALIFORNIA 90017
(213) 572-0400**

November 29, 2021

Nicole Moore, Planning Manager
City of Stockton
345 N. El Dorado Street
Stockton, CA 95202

VIA EMAIL TO:
Nicole.Moore@stocktonca.gov

SUBJECT: Comments on South Stockton Commerce Center EIR (SCH NO. 2020090561)

Dear Ms. Moore,

Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the proposed South Stockton Commerce Center. Please accept and consider these comments on behalf of Golden State Environmental Justice Alliance (GSEJA). Also, GSEJA formally requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

A-1

1.0 Summary

The project proposes a Tentative Map for the 422.22-acre site to create 13 development lots, two basin lots, two open space lots, one sewer pump station lot, and off-site sewer improvements. Of the 13 development lots, 12 will be for development of industrial uses and one will be for development of commercial uses. Based on a maximum FAR of 0.47, a maximum of 6,091,551 square feet of industrial type land uses could be developed throughout the site. Based on a FAR of 0.30, a maximum of 140,350 square feet of commercial land uses could be developed. Neither a conceptual or finalized site plan are provided for public review in the EIR. The project requires approval of a General Plan Amendment and Zoning Map Amendment to shift the boundaries of two areas currently designated Commercial (CG) and Industrial (IL) to be consistent with the future Commerce Drive right-of-way center line to enable vehicular truck/trailer access to the IL site.

A-2

2.0 Project Description

Project Piecemealing

The EIR does not accurately or adequately describe the project, meaning “the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment” (CEQA § 15378). Figures 2.06 and 2.0-9 depict the western portion of the project site (west of the railroad- south of Airport Way) to change the existing residential zoning classification (RH) to an industrial classification (IL). The EIR only addresses this via a footnote that states, “The Stockton Zoning Map (last revised June 29, 2020) identifies the zoning for APN 177-050-09 as CG (Commercial), RM (Residential Medium-Density), and RH (Residential High-Density). However, City of Stockton Ordinance No. 2019-07-16-1501-02 (adopted July 16, 2019, effective August 15, 2019) rezoned APN 177-050-09 to IL (Industrial-Limited) and CG (Commercial), consistent with the Industrial and Commercial General Plan Land Use Designations. These zoning actions will be reflected in the next revision of the Stockton Zoning Map.” Adoption of Ordinance No. 2019-07-16-1501-02 to rezone APN 177-050-09 to IL and CG was a necessary precedent for the proposed project and to reflect “the applicant’s current development interests for the area¹.” The project has been piecemealed into at least two separate actions - a necessary rezoning and the development proposal of the proposed project. Additionally, it is clear that the currently proposed project was already in the pipeline at the time of Ordinance No. 2019-07-16-1501-02 as the staff report also states that “A new Development Agreement and MDP are not required because with the approval of the Zoning Map Amendment, *the modified project* will be consistent with the 2040 General Plan Land Use Map.”

A-3

CEQA § 15165 - Multiple and Phased Projects requires that:

“Where individual projects are, or a phased project is, to be undertaken and where the total undertaking comprises a project with significant environmental effect, the Lead Agency shall prepare a single program EIR for the ultimate project as described in Section 15168. Where an individual project is a necessary precedent for action on a larger project, or commits the Lead Agency to a larger project, with significant environmental effect, an EIR must address itself to the scope of the larger project. Where one project is one of several similar projects of a public agency, but is not deemed a part of a larger undertaking or a larger project, the agency may prepare one EIR for all projects, or one for each project, but shall in either case comment upon the cumulative effect.”

¹ Stockton City Council File No. 19-5275 regarding Ordinance No. 2019-07-16-1501-02 and related actions <https://stockton.legistar.com/LegislationDetail.aspx?ID=4059625&GUID=5250366C-C65C-43EC-93E3-006431546EDC>

Piecemealing the necessary rezoning action for the project site misleads the public and decision makers by circumventing adequate and accurate environmental analysis for the whole of the action. A revised EIR must be prepared pursuant to Section 15168 which accurately represents the whole of the action without piecemealing the project into separate projects to present unduly low environmental impacts.

The EIR notes the following regarding a Development Agreement for the proposed project:

“The proposed project includes a request for approval of a Development Agreement (DA) governing the relationship between the City of Stockton and the SSCC Applicant, or its successors. A primary purpose of the DA may be to regulate development density and intensity over an extended period of time; however, the DA would not increase the maximum density or development intensity. The DA will also be used to establish other agreements between the City/Applicant (or its successors) related to the project. Such other agreements may include, but are not limited to, commitments to project entitlements and development standards as well as any other administrative and/or financial relationships that may be defined during the review of the initial application or subsequent applications related to developing the project.”

The development agreement is not included as an attachment for public review in compliance with CEQA’s requirements for meaningful disclosure. Incorporation by reference (CEQA § 15150 (f)) is not appropriate as the development agreement contributes directly to analysis of the problem at hand. The EIR must be revised to include the development agreement for review, analysis, and comment by the public and decision makers. This is especially vital as the EIR states the primary purpose of the DA is to regulate development density and intensity of the project.

It is notable that the EIR states that “although a final and definitive Site Plan is not currently proposed, for planning purposes a conceptual site plan was prepared to establish a target Floor Area Ratio (FAR) that was used to generate the maximum square footage of building area for the Tentative Map and for purposes of environmental review.” The basic components of a Planning Application include a site plan, floor plan, grading plan, and elevations. It is illogical to prepare a Project EIR (as stated in EIR Section 1.2) without final versions of these items. The EIR lacks basic project information and is inadequate as an informational document. Additionally, none of these items (including the conceptual site plan the EIR states was prepared) are included as part of the EIR for public review, which does not comply with CEQA’s requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate as the site plan, floor plan, grading plan, and elevations contribute directly to analysis of the problem at hand. The EIR must be revised to include all application items for review, analysis, and comment by the public and decision makers.

A-3
cont'd

Additionally, it can be concluded that a final and definitive site plan was prepared for the project as a General Plan Amendment and Rezone of the two areas between Airport Way and the Union Pacific Railroad right-of-way is proposed. These areas are currently designated Commercial and Industrial and are zoned CG (Commercial, General) and IL (Industrial, Light), respectively. The current boundaries of the designations will be modified to be consistent with the future Commerce Drive right-of-way center line to enable vehicular truck/trailer access to the IL site. Circulation needs are dependent upon building and site layout, which are determined as part of a final and definitive site plan. The project would not be knowledgeable enough to propose these changes if a final and definitive site plan had not already been prepared.

A-3
cont'd

3.3 Air Quality, 3.7 Greenhouse Gases, Climate Change, and Energy

Please refer to attachments from SWAPE for a complete technical commentary and analysis.

The EIR does not include for analysis relevant environmental justice issues in reviewing potential impacts, including cumulative impacts generated by the proposed project. This is especially significant as the surrounding community is highly burdened by pollution. According to CalEnviroScreen 4.0, CalEPA's screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed project's census tract (6077003803) ranks worse than 99% of the rest of the state overall. The surrounding community, including sensitive receptors such as the single family and multi-family residences to the east, bears the impact of multiple sources of pollution and is more polluted than average on every pollution indicator measured by CalEnviroScreen. For example, the project census tract ranks in the 51st percentile for ozone burden and the 57th percentile for PM 2.5 burden, which is typically attributed to heavy truck activity in the area.

A-4

Further, the project's census tract is a diverse community including 58% Hispanic, 11% African-American, and 9% Asian residents, which are especially vulnerable to the impacts of pollution. The community has a high rate of linguistic isolation, meaning 49% of households speak little to no English. The community has a high rate of low educational attainment, meaning 89% of the census tract over age 25 has not attained a high school diploma, which is an indication that they may lack health insurance or access to medical care. The community is especially vulnerable as it ranks in the 84th percentile for incidence of asthma and 89th percentile for incidence of cardiovascular disease, which can be attributed to high levels of pollution.

Additionally, the project's census tract is identified as a SB 535 Disadvantaged Community, which is not discussed or presented for analysis in the EIR.

3.4 Biological Resources

The EIR states regarding impact 3.4-1 that “Field surveys and habitat evaluations for the entire Project site were performed on May 4, and November 9, 2020. (De Novo Planning Group, 2020). No special-status invertebrates were observed within the Project site during field surveys and none are expected to be affected by the proposed Project based on the lack of appropriate habitat.” A finding of no impact is also concluded for impacts 3.4-2 through 3.4-10.

However, the EIR does not include any meaningful evidence, such as a Biological Resources Assessment, to support these conclusions. The information provided in Figures 3.4-1 to 3.4-3 is based on general internet-based research and do not provide project-specific information regarding impacts to Biological Resources. The EIR must be revised to support the claims that there are no impacts to Biological Resources by providing meaningful, supporting evidence such as a project-specific Biological Resources Assessment. If a Biological Resources Assessment was prepared and not attached for public review, this is a violation of CEQA § 15150 (f) as the report contributes directly to the analysis of the problem at hand.

A-5

3.8 Hazards and Hazardous Materials

The proposed project site is within Traffic Pattern Zone 7a of the Stockton Airport’s Safety Zones, as identified in the Airport’s ALUCP. Lands within Traffic Pattern Zone 7a cannot be developed with non-residential intensities greater than 450 persons per acre and must have open land over 10 percent of the site. The EIR concludes that “given that the Project’s proposed land uses are compatible with the safety requirements of the ALUCP, and that the Project and future development would be subject to existing Stockton Municipal Code Chapter 16.28 requirements as well as proposed General Plan requirements about development within the AIA, the impact would be less than significant.”

However, the EIR has not provided any meaningful evidence or analysis to support the claim that the impacts are less than significant. SJCOG’s Project Review Guidelines for the Airport Land Use Commission² (ALUC) list that state law mandates ALUC review for “adoption or approval of any amendment to a general or specific plan affecting the property within an airport influence area (Public Utilities Code Section 21676(b)).” ALUC review is required by state law for the proposed project as it requires a General Plan Amendment to proceed. Delaying ALUC review to follow the CEQA process is implementation of the project prior to CEQA review. Additionally, the ALUC also requires project review for buildings 100 feet or taller, which may also be applicable

A-6

² SJCOG Project Review Guidelines for the Airport Land Use Commission
<https://www.sjcog.org/DocumentCenter/View/5041/2019-ALUC-Project-Review-Guidelines?bidId=>

to the project since the EIR has not included elevations for public review. The EIR notes the open land and persons per acre requirements of the ALUC, but does not provide any meaningful evidence or supporting information to demonstrate that the project complies with this requirement. The EIR must be revised to include a complete review by the ALUC for consistency with the Stockton Airport Land Use Compatibility Plan requirements.

A-6
cont'd

3.9 Land Use and Population

The EIR concludes that project would “generate additional employment opportunities. The additional employees may come from Stockton or surrounding communities. The Project would not directly introduce new residents to the City as no housing is proposed as part of the Project. It is noted, however, that *some portion* of the proposed Project employees would become Stockton residents.” This is uncertain language and does not provide any meaningful evidence that the project will have less than significant impacts. The EIR must be revised and recirculated to include a quantified analysis of the employees generated during project construction and operations.

Further, the EIR is erroneous and misleading to the public and decision makers by providing inaccurate data regarding SJCOG projections. The EIR states that SJCOG projects the City will add 48,270 new dwelling units, 153,530 new residents, and 41,030 new jobs between 2015 and 2040. SJCOG’s Population, Household, and Employment Projections³ actually project the City will add 41,030 dwelling units, 122,708 residents, and 39,754 jobs between 2015 and 2040. The EIR must be revised and recirculated to include the accurate information.

A-7

The EIR concludes that the project “is expected to require approximately 2,964 full-time and part-time employees. It is *anticipated* that the employment growth would be met both by existing residents and through the attraction of new residents.” However, the EIR does not provide a methodology for this calculation. The EIR must be revised to include the methodology for determining the number of employees generated by the project with meaningful evidence to support the use of the methodology. Utilizing the 2,964 jobs noted in the EIR in order to provide any method of calculation, the project represents 7.5% of Stockton’s employment growth and 2.4% of the population growth from 2015 - 2040. A single project accounting for 7.5% of the employment growth and 2.4% of the population growth within Stockton over 25 years represents a significant amount of growth. The EIR must be revised to include this analysis, and also provide a cumulative analysis discussion of projects approved since 2015 and projects “in the pipeline” to determine if the project will exceed SJCOG’s employment and/or population growth forecast. Additionally, the revised EIR must also provide demographic and geographic information on the

³ SJCOG’s 2018 RTP/SCS Appendix R- Population, Household, and Employment Projections
<https://www.sjcog.org/DocumentCenter/View/3722/Final-2018-RTPSCS-Technical-Appendix-R---Population-Household-and-Employment-Projections?bidId=>

location of qualified workers to fill these positions in order to provide an accurate environmental analysis. The revised EIR must also include this information and analysis regarding project generated construction jobs.

It must also be noted that the EIR is internally inconsistent as this section utilizes 2,964 employees for analysis while Appendix F - Transportation Impact Assessment notes that the project operations will generate 3,200 employees.

Table 3.10-2 General Plan Policy Consistency does not provide a consistency analysis for all applicable General Plan goals, policies, and programs. The EIR is inadequate as an informational document and a revised EIR must be prepared with a consistency analysis with all General Plan policies, including the following:

POLICY LU-5.2 Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development.

Action LU-5.2A Continue to coordinate with the San Joaquin Council of Governments and comply with the terms of the MultiSpecies Habitat Conservation and Open Space Plan to protect critical habitat areas that support endangered, threatened, and special-status species.

Action LU-5.2B For projects on or within 100 feet of sites that have the potential to contain special-status species or critical or sensitive habitats, including wetlands, require preparation of a baseline assessment by a qualified biologist following appropriate protocols, such as wetland delineation protocol defined by the US Army Corps of Engineers. If such sensitive species or habitats are found to be present, development shall avoid impacting the resource, and if avoidance is not feasible, impacts shall be minimized through project design or compensation identified in consultation with a qualified biologist.

Action LU-5.2C Require new development to implement best practices to protect biological resources, including incidental take minimization measures and other federal and State requirements and recommendations that are consistent with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan.

Action TR-4.1A Strive for Level of Service (LOS) D or better for both daily roadway segment and peak hour intersection operations, except when doing so would conflict with other land use, environmental, or economic development priorities.

GOAL SAF-4: CLEAN AIR Improve local air quality.

POLICY SAF-4.1 Reduce air impacts from mobile and stationary sources of air pollution.

POLICY CH-2.3 Focus on reducing the unique and compounded environmental impacts and risks in disadvantaged communities.

A-7
cont'd

A-8

Additionally, the EIR finds the project is consistent with Policy TR-3.2: Require new development and transportation projects to reduce travel demand and greenhouse gas emissions, support electric vehicle charging, and accommodate multi-passenger autonomous vehicle travel as much as feasible. This is erroneous and misleading to the public and decision makers as the project results in significant and unavoidable VMT and greenhouse gas emissions impacts. Further, regarding Action TR-4.1A, the EIR concludes the project will result in significant and unavoidable LOS impacts, which directly conflicts with this General Plan Action. The EIR must be revised to include these inconsistencies and make a finding of significance.

A-8
cont'd

The EIR does not provide any consistency analysis with the Policies and Supportive Strategies of SJCOG's 2018 RTP/SCS⁴. Due to errors in modeling and modeling without supporting evidence, as noted throughout this comment letter/attachments, and the EIR's determination that the project will have significant and unavoidable cumulatively considerable impacts to Agricultural Resources, Air Quality and Greenhouse Gas Emissions/Climate Change/Energy, and significant and unavoidable impacts to Transportation (VMT and LOS), the proposed project is directly inconsistent with the following Policies and Supportive Strategies of SJCOG's RTP/SCS:

Policy: Enhance the Environment for Existing and Future Generations and Conserve Energy

Strategy #1: Encourage efficient development patterns that maintain agricultural viability and natural resources

Strategy #3: Improve air quality by reducing transportation-related emissions

Policy: Maximize mobility and accessibility

Strategy #4: Improve regional transportation system efficiency

Policy: Preserve the efficiency of the existing transportation system

The EIR must be revised to include a finding of significance due to inconsistency with the 2018 RTP/SCS document.

A-9

3.13 Transportation and Circulation

The EIR concludes, "Implementation of the Proposed Project would not result in a geometric design feature that is inconsistent with applicable design standards for the City of Stockton. The project would not result in a significant change to the vehicle mix or speed of traffic that is not compatible with the design of existing or planned facility design. Therefore, the impact would be

A-10

⁴ SJCOG 2018 RTP/SCS <https://www.sjcog.org/DocumentCenter/View/4156/Final-Compiled-RTPSCS-2018>

Nicole Moore

November 29, 2021

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Less-Than-Significant.” The EIR also reaches a less than significant impact conclusion regarding access for emergency response vehicles. However, the EIR does not provide any meaningful evidence, such as a site plan, to support this conclusion. The EIR is not able to logically conclude that the project will not result in a geometric design feature inconsistent with design standards that creates a hazard, change the vehicle mix/speed of traffic, or impede emergency vehicle access without providing a site plan and circulation layout. The EIR must be revised to include these items for public review and analysis in order to be an adequate informational document.

A-10
cont'd

Conclusion

For the foregoing reasons, GSEJA believes the EIR is flawed and an amended EIR must be prepared for the proposed project and recirculated for public review. Golden State Environmental Justice Alliance requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

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Sincerely,

A handwritten signature in black ink, appearing to be 'Gary Ho', with a stylized, looped flourish at the end.

Gary Ho

Blum Collins & Ho, LLP

Attachments:

1. SWAPE Comment Letter



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November 12, 2021

Gary Ho
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Subject: Comments on the South Stockton Commerce Center Project (SCH No. 2020090561)

Dear Mr. Ho,

We have reviewed the October 2021 Draft Environmental Impact Report ("DEIR") for the South Stockton Commerce Center Project ("Project") located in the City of Stockton ("City"). The Project proposes to develop 6,091,551-SF of industrial space, 140,350-SF of commercial space, 54 acres of open space, 41 acres of public facilities, and 18 acres of right-of-way circulation improvements on the 422.22-acre site.

Our review concludes that the DEIR fails to adequately evaluate the Project's air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An updated EIR should be prepared to adequately assess and mitigate the potential air quality, health risk, and greenhouse gas impacts that the project may have on the surrounding environment.

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The DEIR's air quality analysis relies on emissions calculated with CalEEMod.2016.3.2 (p. 3.3-27).¹ CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project's

¹ CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.

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construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected.

When reviewing the Project's CalEEMod output files, provided in the CalEEMod Outputs as Appendix B.1 to the Air Quality, Greenhouse Gas, and Energy Appendices ("AQ & GHG Report"), we found that several model inputs were not consistent with information disclosed in the DEIR. As a result, the Project's construction and operational emissions are underestimated. Thus, an updated EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Failure to Model All Proposed Land Use Types

According to the DEIR:

"For purposes of the environmental analysis, a range of industrial uses is assumed. These uses include General Light Industrial, Industrial Park, Warehousing, Mini-Warehouse, High-Cube Transload And Short-Term Storage Warehouse, High-cube Fulfillment Center Warehouse, High-Cube Parcel Hub Warehouse, And High-Cube Cold Storage Warehouse" (p. 2.0-5, Table 2.0-2).

As demonstrated above, the Project proposes to include several different industrial and warehouse land uses types. However, review of the CalEEMod output files demonstrates that the "South Stockton Commerce Center" model fails to differentiate between the above-mentioned land use types and rather includes all 6,091,551-SF as "General Light Industry" (see excerpt below) (Appendix B.1, pp. 651, 754, 848).

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6,091.55	1000sqft	298.00	6,091,551.00	0
Other Asphalt Surfaces	18.20	Acre	18.20	792,792.00	0
Regional Shopping Center	140.35	1000sqft	11.00	140,350.00	0
Other Non-Asphalt Surfaces	41.00	Acre	41.00	1,785,960.00	0
City Park	54.00	Acre	54.00	2,352,240.00	0

As you can see from the excerpt above, the model fails to distinguish between the various industrial land use types. This inconsistency presents an issue, as CalEEMod includes 63 different land use types that are each assigned a distinctive set of energy usage emission factors.² Furthermore, each land use type includes a specific trip rate that CalEEMod uses to calculate mobile-source emissions.³ Thus, by failing to include all proposed land use types, the model may underestimate the Project's construction-related and operational emissions and should not be relied upon to determine Project significance.

² "CalEEMod User's Guide, Appendix D." CAPCOA, September 2016, available at:

http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/05_appendix-d2016-3-1.pdf?sfvrsn=2.

³ CalEEMod User's Guide, available at: http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/01_user-39-s-guide2016-3-1.pdf?sfvrsn=2, p. 14.

Unsubstantiated Changes to Individual Construction Phase Lengths

Review of the CalEEMod output files demonstrates that the “South Stockton Commerce Center” model includes several changes to the default individual construction phase lengths (see excerpt below) (Appendix B.1, pp. 652, 755, 849).

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	300.00	240.00
tblConstructionPhase	NumDays	775.00	620.00
tblConstructionPhase	NumDays	7,750.00	3,685.00
tblConstructionPhase	NumDays	550.00	440.00
tblConstructionPhase	NumDays	550.00	3,685.00

As a result of these changes, the model includes the following construction schedule (see excerpt below) (Appendix B.1, pp. 662, 762, 856):

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
1	Site Preparation	Site Preparation	8/1/2021	7/1/2022	5	240
2	Grading	Grading	7/2/2023	11/14/2025	5	620
3	Building Construction	Building Construction	11/15/2025	12/30/2039	5	3685
4	Paving	Paving	11/15/2025	7/23/2027	5	440
5	Architectural Coating	Architectural Coating	11/15/2025	12/30/2039	5	3685

As you can see in the excerpt above, the site preparation phase was decreased by 20%, from the default value of 300 to 240 days; the grading phase was decreased by 20%, from the default value of 775 to 620 days; the building construction phase was decreased by 52%, from the default value of 7,750 to 3,685 days; the paving phase was decreased by 20%, from the default value of 550 to 440 days; and the architectural coating phase was increased by 570%, from the default value of 550 to 3,685 days. As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.⁴ According to the “User Entered Comments & Non-Default Data” table, the justification provided for these changes is: “Construction schedule based on project size and details” (Appendix B.1, pp. 652, 755, 849). Furthermore, regarding the Project’s anticipated construction schedule, the DEIR states:

“The proposed Project is assumed to commence construction in 2021 and finish in late 2039” (p. 3.7-31).

However, these justifications remain insufficient. While the DEIR indicates the total construction duration, the DEIR fails to mention or justify the individual construction phase lengths. This is incorrect, as according to the CalEEMod User’s Guide:

⁴ CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 2, 9

“CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA.”⁵

Here, as the DEIR only justifies a total construction duration of approximately 18 years, the DEIR fails to provide substantial evidence to support the revised individual construction phase lengths. As such, we cannot verify the changes.

These unsubstantiated changes present an issue, as the construction emissions are improperly spread out over a longer period of time for some phases, but not for others. According to the CalEEMod User’s Guide, each construction phase is associated with different emissions activities (see excerpt below).⁶

Demolition involves removing buildings or structures.

Site Preparation involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading.

Grading involves the cut and fill of land to ensure that the proper base and slope is created for the foundation.

Building Construction involves the construction of the foundation, structures and buildings.

Architectural Coating involves the application of coatings to both the interior and exterior of buildings or structures, the painting of parking lot or parking garage striping, associated signage and curbs, and the painting of the walls or other components such as stair railings inside parking structures.

Paving involves the laying of concrete or asphalt such as in parking lots, roads, driveways, or sidewalks.

As such, by disproportionately altering the individual construction phase lengths without proper justification, the model may underestimate the peak daily emissions associated with some phases of construction, here specifically the architectural coating phase. Thus, the model should not be relied upon to determine Project significance.

Unsubstantiated Reduction to Acres of Grading Value

Review of the CalEEMod output files demonstrates that the “South Stockton Commerce Center” model includes a manual reduction to the default acres of grading value (see excerpt below) (Appendix B.1, pp. 654, 757, 851).

Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	1,550.00	328.00

As you can see in the excerpt above, the acres of grading value was decreased from the default value of 1,550- to 328-acres. As previously mentioned, the CalEEMod User’s Guide requires any changes to

⁵ CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 12.

⁶ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 31.

model defaults be justified.⁷ According to the “User Entered Comments & Non-Default Data” table, the justification provided for this reduction is: “328 acres assumed to be graded” (Appendix B.1, pp. 652, 755, 849). However, this change remains unsupported for two reasons.

First, the model cannot simply assume that only 328 acres would be graded. According to the CalEEMod User’s Guide:

“CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, provided that the information is supported by substantial evidence as required by CEQA.”⁸

Here, as the DEIR and associated documents fail to provide substantial evidence to support the revised acres of grading value, we cannot verify the reduction.

Second, according to the CalEEMod User’s Guide:

“[T]he dimensions (e.g., length and width) of the grading site have no impact on the calculation, only the total area to be graded. In order to properly grade a piece of land multiple passes with equipment may be required. The acres is based on the equipment list and days in grading or site preparation phase according to the anticipated maximum number of acres a given piece of equipment can pass over in an 8-hour workday.”⁹

As demonstrated above, the acres of grading value is based on construction equipment and the length of the grading or site preparation phase. Thus, as the dimensions of the Project site have no impact on acres of grading, we cannot verify the revised value.

This unsubstantiated reduction presents an issue, as CalEEMod uses the acres of grading value to estimate the dust emissions associated with grading.¹⁰ Thus, by including an unsubstantiated reduction to the default acres of grading value, the model may underestimate the Project’s construction-related emissions and should not be relied upon to determine Project significance.

Failure to Implement All Feasible Mitigation to Reduce Emissions

As discussed above, the DEIR’s air quality analysis relies upon an incorrect and unsubstantiated air model to determine the significance of the Project’s criteria air pollutant emissions. However, despite the DEIR’s reliance upon a flawed air model, the Project’s construction-related and operational criteria air pollutant emissions estimates indicate a significant air quality impact. Specifically, the DEIR concludes

⁷ CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 2, 9

⁸ CalEEMod Model 2013.2.2 User’s Guide, available at: <http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6>, p. 12.

⁹ “Appendix A Calculation Details for CalEEMod.” available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 9.

¹⁰ “Appendix A Calculation Details for CalEEMod.” available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 9.

that the Project's construction-related NO_x emissions, as well as operational NO_x, ROG, and PM₁₀ emissions, would exceed the applicable SJVAPCD thresholds (see excerpts below) (p. 3.3-35, 3.3-31).

TABLE 3.3-7: CONSTRUCTION PROJECT GENERATED EMISSIONS (TONS PER YEAR) - MITIGATED

POLLUTANT	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
THRESHOLD	100	10	10	27	15	15
MAXIMUM ANNUAL EMISSIONS	20.3	22.3	5.8	0.1	7.1	2.0
EXCEEDS THRESHOLD?	N	Y	N	N	N	N

SOURCES: CALFEEMOD (v.2016.3.2)

TABLE 3.3-6: OPERATIONAL PROJECT GENERATED EMISSIONS (TONS PER YEAR)

POLLUTANT	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
THRESHOLD	100	10	10	27	15	15
EMISSIONS	39.4	114.7	33.0	0.5	24.6	7.0
EXCEEDS THRESHOLD?	N	Y	Y	N	Y	N

SOURCES: CALFEEMOD (v.2016.3.2)

As a result, the DEIR concludes that the Project's construction-related and operational criteria air pollutant emissions would be significant-and-unavoidable (p. 3.3-34, 3.3-35). However, while we agree that the Project's criteria air pollutant emissions would result in a significant air quality impact, the DEIR's conclusion that these impacts are "significant and unavoidable" is incorrect. According to CEQA Guidelines § 15096(g)(2):

"When an EIR has been prepared for a project, the Responsible Agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment."

As you can see, an impact can only be labeled as significant and unavoidable after all available, feasible mitigation is considered. Here, while the DEIR includes Mitigation Measures ("MM(s)") 3.3-1 through 3.3-5, the DEIR fails to implement all feasible mitigation (p. 3.3-34 – 3.3-36). Therefore, the DEIR's conclusion that the Project's air quality impacts are significant-and-unavoidable is unsubstantiated. To reduce the Project's air quality impacts to the maximum extent possible, additional feasible mitigation measures should be incorporated, such as those suggested in the section of this letter titled "Feasible Mitigation Measures Available to Reduce Emissions." Thus, the Project should not be approved until an updated EIR is prepared, including updated, accurate air modeling, as well as incorporating all feasible mitigation to reduce emissions to less-than-significant levels.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The DEIR estimates that the maximum incremental cancer risk posed to nearby, existing sensitive receptors as a result of Project operation associated truck idling, truck on-site mobile, and TRU diesel

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particulate matter (“DPM”) emissions would be 1.09 in one million, which would not exceed the SJVAPCD significance threshold of 20 in one million (see excerpt below) (p. 3.3-40, Table 3.3-9).

TABLE 3.3-9: SUMMARY OF MAXIMUM HEALTH RISKS

<i>RISK METRIC</i>	<i>MAXIMUM RISK</i>	<i>SIGNIFICANCE THRESHOLD</i>	<i>IS THRESHOLD EXCEEDED?</i>
Residential Cancer Risk (70-year exposure)	1.09	20 per million	No
Workplace Cancer Risk (40-year exposure)	0.14	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥ 1	No
Acute (non-cancer) ¹	<0.01	Hazard Index ≥ 1	No

SOURCES: AERMOD (LAKES ENVIRONMENTAL SOFTWARE, 2022); AND HARP-2 AIR DISPERSION AND RISK TOOL.

However, the DEIR fails to discuss the health risk impacts associated with Project construction. The DEIR’s evaluation of the Project’s potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons.

First, by failing to prepare a quantified construction HRA, the Project is inconsistent with CEQA’s requirement to correlate the increase in emissions that the Project would generate to the adverse impacts on human health caused by those emissions. This is incorrect, as construction of the proposed Project will produce emissions of DPM through the exhaust stacks of construction equipment over a potential construction period of approximately 18 years (p. 3.7-31). However, the DEIR fails to discuss the potential TACs associated with Project construction or indicate the concentrations at which such pollutants would trigger adverse health effects. Thus, without making a reasonable effort to connect the Project’s construction-related TAC emissions to the potential health risks posed to nearby receptors, the AQ & GHG Report is inconsistent with CEQA’s requirement to correlate the increase in emissions generated by the Project with the potential adverse impacts on human health.

Second, the State of California Department of Justice recommends the preparation of a quantitative HRA pursuant to the Office of Environmental Health Hazard Assessment (“OEHHA”), the organization responsible for providing guidance on conducting HRAs in California, as well as local air district guidelines.¹¹ OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* in February 2015, as referenced by the AQ & GHG Report (Appendix A, p. 2).¹² The OEHHA document recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident (“MEIR”).¹³ Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, we

¹¹ “Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act.” State of California Department of Justice, *available at*: <https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf>, p. 6.

¹² “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, *available at*: http://oehha.ca.gov/air/hot_spots/hotspots2015.html

¹³ “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, *available at*: http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-6, 8-15

recommend that health risk impacts from Project operation also be evaluated, as a 30-year exposure duration vastly exceeds the 6-month requirement set forth by OEHHA. This recommendation reflects the most recent state health risk policies, and as such, we recommend that an analysis of health risk impacts posed to nearby sensitive receptors from Project operation be included in an updated EIR for the Project.

Third, while the DEIR includes an HRA evaluating the health risk impacts to nearby, existing receptors as a result of Project operation, the HRA fails to evaluate the cumulative lifetime cancer risk to nearby, existing receptors as a result of Project construction and operation together. According to OEHHA guidance, as referenced by the AQ & GHG Report, “the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk at the receptor location” (Appendix A, p. 2).¹⁴ However, the DEIR’s HRA fails to sum each age bin to evaluate the total cancer risk over the course of the Project’s total construction and operation. This is incorrect and thus, an updated analysis should quantify the entirety of the Project’s construction and operational health risks and then sum them to compare to the SJVACPD threshold of 20 in one million, as referenced by the DEIR (p. 3.3-40).

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Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The DEIR estimates that the Project would generate net annual greenhouse gas (“GHG”) emissions of 72,615.9 metric tons of carbon dioxide equivalents per year (“MT CO₂e/year”) (p. 3.7-32, Table 3.7-2).

TABLE 3.7-2: OPERATIONAL GHG EMISSIONS AT BUILDOUT (MITIGATED METRIC TONS/YEAR)

	BIO- CO ₂	NON-BIO- CO ₂	TOTAL CO ₂	CH ₄	N ₂ O	CO ₂ E
Area	0	0.1	0.1	<1	0	0.1
Energy	0	21,602.5	21,602.5	0.8	0.3	21,699.6
Mobile	0	42,748.6	42,748.6	1.8	0	42,794.6
Waste	1,564.2	0	1,564.2	92.4	0	3,875.1
Water	450.2	2,305.8	2,756.0	46.3	1.1	4,246.4
Total	2,014.4	66,657.0	68,671.4	141.4	1.4	72,615.9

SOURCES: CAL EEMOD (v.2016.3.2)

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Furthermore, based on a service population of 2,964 people, the DEIR estimates a service population efficiency value of 24.5 metric tons of carbon dioxide equivalents per service population per year (“MT CO₂e/SP/year”), which exceeds the 2040 threshold of 4.84 MT CO₂e/SP/year. As a result, the DEIR concludes that the Project would result in a significant-and-unavoidable greenhouse gas (“GHG”) impact after the implementation of mitigation measure (“MM”) 3.7-1 (p. 3.7-33). However, while we agree that the Project would result in a significant GHG impact, the DEIR’s assertion that this impact is significant-and-unavoidable is insufficient for two reasons:

- (1) The DEIR’s GHG analysis relies upon an incorrect and unsubstantiated air model; and

¹⁴ “Guidance Manual for preparation of Health Risk Assessments.” OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf> p. 8-4

(2) The DEIR fails to implement all feasible mitigation.

1) Incorrect and Unsubstantiated Quantitative Analysis of Emissions

As previously stated, the DEIR estimates that the Project would generate net annual GHG emissions of 72,615.9 MT CO₂e/year (p. 3.7-32, Table 3.7-2). However, the DEIR's quantitative GHG analysis is unsubstantiated. As previously discussed, when we reviewed the Project's CalEEMod output files, provided in the AQ & GHG Report as Appendix B to the DEIR, we found that several of the values inputted into the model are not consistent with information disclosed in the DEIR. As a result, the model underestimates the Project's emissions, and the DEIR's quantitative GHG analysis should not be relied upon to determine Project significance. An updated EIR should be prepared that adequately assesses the potential GHG impacts that construction and operation of the proposed Project may have on the surrounding environment

2) Failure to Implement All Feasible Mitigation to Reduce GHG Emissions

As discussed above, the DEIR's GHG analysis relies upon an incorrect and unsubstantiated air model to determine the significance of the Project's GHG emissions. However, despite the DEIR's flawed air model, the DEIR concludes that the proposed Project's GHG emissions would be significant-and-unavoidable (p. 3.7-33). However, while we agree that the Project would result in a significant GHG impact, the DEIR's conclusion that this impact is "significant and unavoidable" is incorrect. As previously stated, according to CEQA Guidelines § 15096(g)(2):

"When an EIR has been prepared for a project, the Responsible Agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment."

As you can see, an impact can only be labeled as significant-and-unavoidable after all available, feasible mitigation is considered. Here, while the DEIR implements MM 3.7-1, which requires the applicant to demonstrate prior to the approval of new development phases that the Project does not exceed SJVAPCD greenhouse thresholds for Project operations, the DEIR fails to implement all feasible mitigation. Therefore, the DEIR's conclusion that Project's GHG emissions would be significant-and-unavoidable is unsubstantiated. To reduce the Project's GHG impacts to the maximum extent possible, additional feasible mitigation measures should be incorporated, such as those suggested in the section of this letter titled "Feasible Mitigation Measures Available to Reduce Emissions." Thus, the Project should not be approved until an updated EIR is prepared, including updated, accurate air modeling, as well as incorporating all feasible mitigation to reduce emissions to less-than-significant levels.

Feasible Mitigation Measures Available to Reduce Emissions

The DEIR's analysis demonstrates that the Project would result in significant air quality and GHG impacts that should be mitigated further. In an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project. Feasible mitigation measures can be

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found in the Department of Justice Warehouse Project Best Practices document.¹⁵ Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

- Requiring off-road construction equipment to be zero-emission, where available, and all diesel-fueled off-road construction equipment, to be equipped with CARB Tier IV-compliant engines or better, and including this requirement in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant construction equipment for use prior to any ground-disturbing and construction activities.
- Prohibiting off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day.
- Requiring on-road heavy-duty haul trucks to be model year 2010 or newer if diesel-fueled.
- Providing electrical hook ups to the power grid, rather than use of diesel-fueled generators, for electric construction tools, such as saws, drills and compressors, and using electric tools whenever feasible.
- Limiting the amount of daily grading disturbance area.
- Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area.
- Forbidding idling of heavy equipment for more than two minutes.
- Keeping onsite and furnishing to the lead agency or other regulators upon request, all equipment maintenance records and data sheets, including design specifications and emission control tier classifications.
- Conducting an on-site inspection to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts.
- Using paints, architectural coatings, and industrial maintenance coatings that have volatile organic compound levels of less than 10 g/L.
- Providing information on transit and ridesharing programs and services to construction employees.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations for construction employees.
- Requiring that all facility-owned and operated fleet equipment with a gross vehicle weight rating greater than 14,000 pounds accessing the site meet or exceed 2010 model-year emissions equivalent engine standards as currently defined in California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025. Facility operators shall maintain records on-site demonstrating compliance with this requirement and shall make records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring all heavy-duty vehicles entering or operated on the project site to be zero-emission beginning in 2030.
- Requiring on-site equipment, such as forklifts and yard trucks, to be electric with the necessary electrical charging stations provided.

¹⁵ "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." State of California Department of Justice.

- Requiring tenants to use zero-emission light- and medium-duty vehicles as part of business operations.
- Forbidding trucks from idling for more than two minutes and requiring operators to turn off engines when not in use.
- Posting both interior- and exterior-facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to CARB, the air district, and the building manager.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, air filtration systems at sensitive receptors within a certain radius of facility for the life of the project.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the project, and making the resulting data publicly available in real time. While air monitoring does not mitigate the air quality or greenhouse gas impacts of a facility, it nonetheless benefits the affected community by providing information that can be used to improve air quality or avoid exposure to unhealthy air.
- Constructing electric truck charging stations proportional to the number of dock doors at the project.
- Constructing electric plugs for electric transport refrigeration units at every dock door, if the warehouse use could include refrigeration.
- Constructing electric light-duty vehicle charging stations proportional to the number of parking spaces at the project.
- Installing solar photovoltaic systems on the project site of a specified electrical generation capacity, such as equal to the building's projected energy needs.
- Requiring all stand-by emergency generators to be powered by a non-diesel fuel.
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks.
- Requiring operators to establish and promote a rideshare program that discourages single-occupancy vehicle trips and provides financial incentives for alternate modes of transportation, including carpooling, public transit, and biking.
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking.
- Achieving certification of compliance with LEED green building standards.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations.
- Posting signs at every truck exit driveway providing directional information to the truck route.
- Improving and maintaining vegetation and tree canopy for residents in and around the project area.
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB approved courses. Also require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request.

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- Requiring tenants to enroll in the United States Environmental Protection Agency’s SmartWay program, and requiring tenants to use carriers that are SmartWay carriers.
- Providing tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation. Furthermore, we recommend the Project consider the mandatory and voluntary GHG emissions reduction measures in the City’s CAP, specifically the measures relating to building energy, land-use and transportation, waste generation, water consumption, wastewater treatment, urban forestry, and off-road vehicles.¹⁶ An updated EIR should be prepared to include all feasible mitigation measures, as well as include updated air quality, health risk, and GHG analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The updated EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project’s significant emissions are reduced to the maximum extent possible.

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Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

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Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

¹⁶ “City of Stockton Climate Action Plan.” City of Stockton, August 2014, *available at*: https://www.stocktonca.gov/files/Climate_Action_Plan_August_2014.pdf, p. 3-18 – 3-38.

Attachment A: Matt Hagemann CV
Attachment B: Paul E. Rosenfeld CV



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**Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review**

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.

B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist

California Certified Hydrogeologist

Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014, 2017;
- Senior Environmental Analyst, Komex H₂O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt’s duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, *Oxygenates in Water: Critical Information and Research Needs*.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.

- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukunaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.



Technical Consultation, Data Analysis and
Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE

2656 29th Street, Suite 201
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Paul Rosenfeld, Ph.D.

Principal Environmental Chemist

Chemical Fate and Transport & Air Dispersion Modeling

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H₂O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*. 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. *Journal of Real Estate Research*. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.**, Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermid and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste*. Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries*. Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution*, 123 (17), 319-327.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities*. Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004*. New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellev, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS-6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld**. (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States” Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International*

Conferences on Soils Sediment and Water. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The 23rd *Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants..* Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. \$100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 5-14-2021
Trial, October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty, Plaintiff vs. Consolidated Rail Corporation and National Railroad Passenger Corporation
d/b/a AMTRAK,
Case No.: No. 18-L-6845
Rosenfeld Deposition, 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe, Plaintiff vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA
Rail, Defendants
Case No.: No. 17-cv-8517
Rosenfeld Deposition, 5-25-2021

In the Superior Court of the State of Arizona In and For the Cuntly of Maricopa
Mary Tryon et al., Plaintiff vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case Number CV20127-094749
Rosenfeld Deposition: 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al *Plaintiffs*, vs. CNA Insurance Company et al.
Case Number 1:17-cv-000508
Rosenfeld Deposition: 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff*, vs. Marathon Petroleum, LP, *Defendant*.
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs*, vs. United States Metals Refining Company et. al. *Defendant*.
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs*, vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS “Conti Perdido”
Defendant.
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case No.: 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosiences, LLC, et al., Defendants
Cause No.: 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs*, vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action NO. 14-C-30000
Rosenfeld Deposition, June 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant*.
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs*, vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant*.
Civil Action Number 2:09-cv-232-WHA-TFM
Rosenfeld Deposition: July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*
Civil Action No. CV 2008-2076
Rosenfeld Deposition: September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.
Case Number 2:07CV1052
Rosenfeld Deposition: July 2009

November 19, 2021

Nicole Moore
Senior Planner
City of Stockton Community Development Department
345 N. El Dorado
Stockton, California 95202
nicole.moore@stocktonca.gov

Dear Nicole Moore:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the South Stockton Commerce Center Specific Plan (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020090561. The Project is proposed within the City of Stockton (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes. The Project proposes the development of up to 6,091,551 square feet of industrial type land uses and 140,350 square feet of commercial land uses on approximately 422 acres of land. Once in operation, the Project is expected to generate approximately 22,633 daily vehicle trips, including 5,552 daily heavy-duty truck trips, along local roadways.

CARB submitted a comment letter, which is attached to this letter, on the Notice of Preparation (NOP) for the DEIR released in September 2020. CARB comments dated November 17, 2020, highlighted the need for preparing a health risk assessment (HRA) for the Project and encouraged the City and applicant to implement all existing and emerging zero emission technologies to minimize exposure to diesel particulate matter (diesel PM) and nitrogen oxides (NOx) emissions for all neighboring communities, and to minimize the greenhouse gases that contribute to climate change. Due to the Project's proximity to residences already disproportionately burdened by multiple sources of pollution, CARB's comments on the NOP expressed concerns with the potential cumulative health risks associated with the construction and operation of the Project. CARB reviewed the DEIR and has the following concerns:

B-1

The City Uses Inappropriate Trip Lengths When Modeling the Project's Air Quality Impacts from Mobile Sources

The Project's operational mobile source air pollutant emissions may have been underestimated in the DEIR by using vehicle trip lengths unsupported by substantial evidence. The Project's operational air pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod). Based on CARB's review of the CalEEMod outputs found in Appendix B.1 (CalEEMod Outputs) of the DEIR, the City relied on CalEEMod vehicle trip length defaults to estimate the Project's mobile source air pollutant emissions. After applying these defaults, 59 percent of the Project's total vehicle trips would have a

B-2

travel distance of 9.5 miles and 41 percent of the Project's total vehicle trips would have a travel distance 7.3 miles.

The DEIR does not specify the distance workers and truck drivers would need to travel to operate the proposed industrial development. The Project is located within a short distance from the Port of Stockton and other industrial warehouses, which the Project could serve. However, the heavy-duty trucks transporting goods to the proposed industrial uses could travel greater distances, such as Port of Oakland or Port of Point San Pablo. Unless the City restricts the Project's truck trip distances to those specified in the Project's air quality analysis, the City must remodel the Project's air quality impacts assuming a truck trip distance supported by substantial evidence.

B-2
cont'd

The DEIR Did Not Account for Air Pollutant Emissions from Heavy Duty Trucks During On-Site Grading

The DEIR did not account for mobile source air pollutant emissions from heavy-duty trucks during the Project's construction grading phase. The Project's description does not specify if the Project would require the export or import of soil to level the site. Also, based on CARB's review of the CalEEMod outputs, found in Appendix B.1 (CalEEMod Outputs) of the DEIR, the City assumed that no heavy-duty truck trips would be required to import or export soil during the on-site grading. However, some of the mitigation measures presented in the DEIR seems to suggest that heavy-duty trucks would be required Project's construction grading phase. For example, Mitigation Measures 3.3-4 requires all heavy-duty trucks leaving the Project site during construction phase to be fully covered, which suggests heavy-duty trucks will be required to either import or export soil from the Project site. If soil must be imported or exported to grade the Project site, the truck trips needed to accomplish that must be accounted for.

B-3

The City must remodel the Project's construction air pollutant emissions using accurate heavy duty truck trip estimates. Residences and other sensitive receptors (e.g., daycare facilities, senior care facilities, and schools) located near construction haul routes could be exposed to diesel exhaust emissions that were not evaluated in the DEIR. The FEIR should clearly state the total number of heavy-duty truck trips expected during Project construction so the public can fully understand the potential environmental effects of the Project on their communities.

The DEIR Does Not Analyze Potential Air Quality Impacts from the Project's Transport Refrigeration Units

Although the HRA prepared for the Project evaluated cancer risks from the operation of onsite and off-site TRUs, the City and applicant did not model and report air pollutant emissions from TRUs in the DEIR. The air pollutant emission estimates, found in Table 3.3-6 (Operational Project Generated Emissions) of the DEIR, were modeled using CalEEMod. Although CalEEMod can estimate air pollutant emissions from area, energy, and mobile sources, the current version of CalEEMod does not account for air pollutant emissions from

B-4

TRUs. Since a portion of the Project will be used for cold storage, CARB urges the City and applicant to model and report the Project's air pollution emissions from TRUs using CARB's latest emission factors. As indicated above, the City and applicant should assume that a conservative percentage of the Project's truck fleet is equipped with TRUs, as well as a conservative idling duration for each TRU.

B-4
cont'd

The Health Risk Assessment Used Inappropriate Assumptions When Modeling the Project's Health Risk Impacts

The HRA prepared for the Project and presented in Appendix B.3 (Health Risk Assessment) of the DEIR, concluded that residences near the Project site would be exposed to diesel PM emissions that would result in cancer risks of 1.09 chances per million during Project operation. Since the Project's cancer risks are below the San Joaquin Valley Air Pollution Control District's (SJVAPCD) significance threshold of 20 chances per million, the DEIR concluded that the Project would result in a less than significant impact on public health. CARB has reviewed the Project's HRA and is concerned that the Project's cancer risk impacts may have been underestimated for the reasons detailed below.

The cancer risk impacts presented in the HRA should have been based on PM10 idling emissions factors obtained from the latest version of CARB's Emission Factors model (EMFAC). As shown in Table 2 (Emission Source Assumptions) of the HRA, the City used a 0.0035 grams per hour PM10 idling emission factor to calculate the cancer risk impacts while trucks are idling within the Project site. This PM10 idling emission factor was based on idling test data found in the EMFAC2014 Technical Documentation Guidebook. Since the public release of EMFAC2014 in May 2015, CARB has made many updates to the EMFAC model and has released two updated versions: EMFAC2017, released in May 2018, and EMFAC2021, released in January 2021. Some of the updates to the EMFAC model included updates to the heavy-duty truck activity and emission rates, and implementation of CARB's latest regulations. EMFAC2014 underestimated diesel PM emission rates from diesel heavy-duty trucks due to limited in-use test data for engine model year 2010 and newer, thus the Project's mobile source diesel PM emissions are likely underestimated in the DEIR. CARB urges the City and applicant to model and report the Project's air pollution emissions from mobile sources using emission factors found in CARB's latest EMFAC2021. Emission factors can be easily obtained by running the EMFAC2021 Web Database:
<https://arb.ca.gov/emfac/emissions-inventory>.

B-5

The HRA assumed all TRUs visiting the Project site would not idle longer than 15 minutes. Data obtained by CARB staff indicates that TRUs can operate for as long as two hours per visit, which is well above the 15-minute duration assumed in the HRA. Unless the applicant and City restrict TRU idling durations to less than 15 minutes, the Project's HRA should be revised to assume a TRU idling duration legitimized by substantial evidence.

The HRA prepared for the warehouse/logistics center cold storage scenario assumed 15 percent of the Project's total daily heavy-duty truck traffic would consist of trucks equipped

with TRUs. It is unclear in the HRA how this estimate was derived. Due to the large size of the proposed warehouse development, CARB is concerned that the number of TRUs visiting the Project site may be underestimated in the HRA. CARB urges the City and applicant to provide substantial evidence to support this assumption.

The HRA assumed the TRUs accessing the Project site would have an average power rating of 34 hp. TRUs with a power rating of less than 25 hp have a higher PM emission rate (0.3 g/bhp-hr) than those greater than 25 hp (0.02 g/bhp-hr). Unless the applicant and City prohibit TRUs with a power rating of less than 25 hp from accessing the Project site, the Project's HRA should be revised. The revised HRA should assume a conservative percentage of the TRUs entering the Project site have a power rating of less than 25 hp, legitimized by substantial evidence.

The HRA did not evaluate cancer risk impacts from trucks and trucks with TRUs traveling along local roadways. According to the Project's description, a roadway named Commerce Drive will be constructed through the Project site. This roadway will connect the Project site to Airport Way and State Route 99. There are residences located adjacent to Airport Way that will be exposed to diesel PM emissions from trucks and trucks with TRUs traveling to and from the Project site that has the potential to result in a potentially significant cancer risk impact. To fully understand the Project's impact on public health, the revised HRA should evaluate potential cancer risks along local roadways serving the Project site.

Although the HRA did model cancer risk impacts at residences located south and southwest of the Project site, the HRA did not model cancer risk impacts at residences located west of the Project site, across from Airport Way. To fully understand the Project's public health impacts, the HRA should evaluate cancer risks at all residences near the Project.

The City did not evaluate the Project's potential cancer risks impacts in the HRA or provide any other quantitative or qualitative analysis to evaluate the Project's potential impact on public health during its construction. The Office of Environmental Health Hazard Assessment's (OEHHHA) guidance, recommends assessing cancer risks for construction projects lasting longer than two months.¹ According to the Chapter 3.3 (Air quality) of the DEIR, the construction of the project would begin in 2021 and last for nearly two decades (i.e., 2040), which is beyond the construction duration that would require a project to prepare a construction HRA. To fully understand the Project's potential impacts on public health, the HRA should be revised to evaluate the Project's construction cancer risk impacts.

Since the Project is expected to be built out over a period lasting two decades, it is likely that portions of the Project could be built out and operational while other portions of the Project site is still being constructed. If this overlap is anticipated to occur, residences near the Project would be exposed to diesel PM emissions from onsite construction equipment and

B-5
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¹ Office of Environmental Health Hazard Assessment (OEHHHA). Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February 2015. Accessed at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>

heavy-duty trucks serving the proposed industrial development that were not accounted for in the Project's HRA. To account for this potential overlap, the City must evaluate the combined cancer risk impacts from the combined construction and operation of the Project. If no overlap is expected to occur, the FEIR must include a project design measure that prohibits the operation of any industrial uses until the Project is completely built out in the year 2040.

Lastly, the HRA modeled the Project's cancer risk impacts using mobile emission factors obtained from EMFAC2017 assuming a 2040 operational year. The mobile PM10 emission factors in EMFAC will be lower in future years due fleet turnover and the development of cleaner vehicles with lower emissions over time. If a large portion of the proposed industrial development is anticipated to be operational sooner than 2040, such as 2025 or 2030, the mobile emission factors used to model the Project's cancer risk impacts could be underestimated. To conservatively estimate the Project's impact on public health, the cancer risks presented in the revised HRA should be based on mobile emission factors that take into account for early operational years.

B-5
cont'

The City Must Include Additional Mitigation Measures to Minimize the Project's Significant and Unavoidable Impact on Air Quality

Chapter 3.3 (Air Quality) of the DEIR concludes that nitrogen oxides (NOx) emitted during Project construction and volatile organic compounds (VOC) and NOx emitted during Project operation would exceed the SJVAPCD's significance thresholds. To reduce the Project's impact on air quality, the DEIR included five mitigation measures (MM 3.3-1 through MM 3.3-5). These mitigation measures include requiring the applicant to comply with SJVAPCD's Rule 9510 to mitigate the Project's operational air pollutant emissions, and Rules 8011 through 8081 to mitigate the Project's construction fugitive dust emissions. These measures also require the Project applicant to implement dust control practices identified in the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) to further reduce emissions of fugitive dust emitted during the construction of the Project. After complying with all SJVAPCD's Rules, the City concluded in the DEIR that the Project's impact on air quality would remain significant and unavoidable.

B-6

Although complying with local air district rules would reduce the Project's air pollutant and fugitive dust emissions, these rules should not be exclusively relied on to mitigate the Project's impact on air quality. In the DEIR, the City states that the Project would comply with SJVAPCD Rule 9510. This rule requires the applicant to reduce the Project's operational NOx and PM10 emissions by 33.3 and 50 percent, respectively. This rule also requires the applicant to reduce the Project's construction NOx and PM10 emissions by 20 and 45 percent, respectively. To achieve these reductions, the applicant will need to pay into an off-site mitigation fund managed by the SJVAPCD for any emission reductions required by the rule that are not achieved through on-site emission reductions. The City must explain in the DEIR how the rule will achieve the desired emission reductions after all feasible mitigation measures are implemented. The City must list all the Project design features and mitigation

measures that would reduce the Project's operational air pollutant emissions and the amount of money the applicant will pay into SJVAPCD's off-site mitigation fund.

Under CEQA, Projects that will have a significant and unavoidable impact on the environment must implement all feasible mitigation measures to reduce those impacts (see California Public Resources Code § 21081; 14 CCR § 15126.2(b)). Based on CARB's review of the DEIR, the City has failed to meet this requirement under CEQA. To meet the minimum requirements of CEQA and protect public health, the City must include meaningful and project-specific mitigation measures in the FEIR to reduce the Project's air pollutant emissions. Appendix A of this letter contains a list of feasible measures that can be applied to the Project to minimize air pollution. The mitigation measures in the FEIR must be fully enforceable and imposed by the City.

B-6
cont'd

Conclusion

CARB is concerned about the potential public health impacts should the City approve the Project and how those impacts were evaluated in the DEIR. The Project's air quality impact analysis and conclusions are based on heavy-duty truck trip distances and mixes that were not supported by substantial evidence. The DEIR did not account for air pollutant emissions from haul truck trips during onsite grading or trucks with TRUs during Project operation. The cancer risk impacts presented in the Project's HRA were based on unsubstantiated evidence. Lastly, the City did not include meaningful and project-specific mitigation measures in the DEIR to reduce the Project's significant and unavoidable impact on air quality.

B-7

Given the breadth and scope of projects subject to CEQA review throughout California that have air quality and greenhouse gas impacts, coupled with CARB's limited staff resources to substantively respond to all issues associated with a project, CARB must prioritize its substantive comments here based on staff time, resources, and its assessment of impacts. CARB's deliberate decision to substantively comment on some issues does not constitute an admission or concession that it substantively agrees with the lead agency's findings and conclusions on any issues on which CARB does not substantively submit comments.

CARB appreciates the opportunity to comment on the DEIR for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. Please include CARB on your list of selected State agencies that will receive the FEIR. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist via email at stanley.armstrong@arb.ca.gov.

Sincerely,



Robert Krieger, Branch Chief, Risk Reduction Branch

Attachment

cc: See next page.

cc: State Clearinghouse
state.clearinghouse@opr.ca.gov

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Stanley Armstrong, Air Pollution Specialist, Risk Reduction Branch

Attachment A

November 17, 2020

Nicole Moore
Acting Planning Manager
City of Stockton
345 North El Dorado Street
Stockton, California 95202
Submitted via email: nicole.moore@stocktonca.gov

Dear Nicole Moore:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Notice of Preparation (NOP) for the South Stockton Commerce Center Project (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020090561. The Project proposes the development of a maximum of 140,350 square feet of commercial uses and 6,091,551 square feet of industrial uses on a 437.45-acre site. The proposed Project is within the City of Stockton (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

Freight facilities, like the one proposed in the Project, can result in high daily volumes of heavy-duty diesel truck traffic and operation of on-site equipment (e.g., forklifts and yard tractors) that emit toxic diesel emissions, and contribute to regional air pollution and global climate change.¹ CARB has reviewed the NOP and is concerned about the air pollution and health risk impacts that would result should the City approve the Project.

I. The Project Would Increase Exposure to Air Pollution in Disadvantaged Communities

The Project, if approved, will expose nearby communities to elevated levels of air pollution. Residences are located south and west of the Project site, with the closest residences situated approximately 930 feet from the Project's western boundary. In addition to residences, the Venture Academy Family of Schools is located within 2 miles of the Project. The communities near the Project are exposed to existing toxic diesel particulate matter (diesel PM) emissions from aircraft operations at the Stockton Metropolitan Airport and vehicular traffic along Interstate 5 (I-5) and State Route 99 (SR-99). Due to the Project's proximity to residences and a school already burdened by multiple sources of air pollution, CARB is concerned with the potential cumulative health impacts associated with the construction and operation of the Project.

¹ With regard to greenhouse gas emissions from this project, CARB has been clear that local governments and project proponents have a responsibility to properly mitigate these impacts. CARB's guidance, set out in detail in the Scoping Plan issued in 2017, makes clear that in CARB's expert view, local mitigation is critical to achieving climate goals and reducing greenhouse gases below levels of significance.

The State of California has placed additional emphasis on protecting local communities from the harmful effects of air pollution through the passage of Assembly Bill 617 (AB 617) (Garcia, Chapter 136, Statutes of 2017). AB 617 is a significant piece of air quality legislation that highlights the need for further emission reductions in communities with high exposure burdens, like those in which the Project is located. Diesel PM emissions generated during the construction and operation of the Project would negatively impact nearby communities, which are already disproportionately impacted by air pollution from aircraft operations at the Stockton Metropolitan Airport and vehicular traffic along I-5 and SR-99.

Through its authority under Health and Safety Code section 39711, the California Environmental Protection Agency (CalEPA) is charged with the duty to identify disadvantaged communities. CalEPA bases its identification of these communities on geographic, socioeconomic, public health, and environmental hazard criteria (Health and Safety Code, section 39711, subsection (a)). In this capacity, CalEPA currently defines a disadvantaged community, from an environmental hazard and socioeconomic standpoint, as a community that scores within the top 25 percent of the census tracts, as analyzed by the California Communities Environmental Health Screening Tool Version 3.0 (CalEnviroScreen). CalEnviroScreen uses a screening methodology to help identify California communities currently disproportionately burdened by multiple sources of pollution. The census tract containing the Project is within the top 5 percent for Pollution Burden² and is considered a disadvantaged community; therefore, CARB urges the City to ensure that the Project does not adversely impact neighboring disadvantaged communities.

II. The DEIR Should Quantify and Discuss the Potential Cancer Risks from On-site Transport Refrigeration Units

Since the NOP states the proposed industrial uses could be used for cold storage, it is likely that trucks and trailers visiting the Project site would be equipped with transport refrigeration units (TRU).³ TRUs on trucks and trailers can emit large quantities of diesel exhaust while operating within the Project site. Residences and other sensitive receptors (e.g., daycare facilities, senior care facilities, and schools) located near where these TRUs could be operating, would be exposed to diesel exhaust emissions that would result in a significant cancer risk.

CARB urges the City to model air pollutant emissions from on-site TRUs in the DEIR, as well as include potential cancer risks from on-site TRUs in the Project's health risk assessment (HRA). The HRA prepared for the Project should account for all potential health risks from Project-related diesel PM emission sources such as backup

². Pollution Burden represents the potential exposure to pollutants and the adverse environmental conditions caused by pollution.

³. TRUs are refrigeration systems powered by integral diesel engines that protect perishable goods during transport in an insulated truck and trailer vans, rail cars, and domestic shipping containers.

generators, TRUs, and heavy-duty truck traffic, and include all the air pollutant reduction measures listed in Attachment A of this comment letter.

In addition to the health risks associated with operational emissions, health risks associated with construction emissions should also be included in the air quality section of the DEIR and the Project's HRA. Construction of the Project would result in short-term diesel emissions from the use of both on-road and off-road diesel equipment. The Office of Environmental Health Hazard Assessment's (OEHHA) guidance (2015 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments)⁴ recommends assessing cancer risks for construction projects lasting longer than two months. Since construction would very likely occur over a period lasting longer than two months, the HRA prepared for the Project should include health risks for existing residences near the Project site during construction.

The HRA prepared in support of the Project should be based on the latest OEHHA guidance. The HRA should evaluate and present the existing baseline (current conditions), future baseline (full build-out year, without the Project), and future year with the Project. The health risks modeled under both the existing and the future baselines should reflect all applicable federal, state, and local rules and regulations. By evaluating health risks using both baselines, the public and City planners will have a complete understanding of the potential health impacts that would result from the Project.

III. Conclusion

To reduce the exposure of toxic diesel PM emissions in disadvantaged communities already disproportionately impacted by air pollution, the final design of the Project should include all existing and emerging zero-emission technologies to minimize diesel PM and oxides of nitrogen (NO_x) emissions, as well as the greenhouse gases that contribute to climate change. CARB encourages the City and applicant to implement the measures listed in Attachment A of this comment letter to reduce the Project's construction and operational air pollution emissions.

Given the breadth and scope of projects subject to CEQA review throughout California that have air quality and greenhouse gas impacts, coupled with CARB's limited staff resources to substantively respond to all issues associated with a project, CARB must prioritize its substantive comments here based on staff time, resources, and its assessment of impacts. CARB's deliberate decision to substantively comment on some issues does not constitute an admission or concession that it substantively agrees with the lead agency's findings and conclusions on any issues on which CARB does not substantively submit comments.

⁴. Office of Environmental Health Hazard Assessment (OEHHA). Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February 2015. Accessed at: <https://oehha.ca.gov/media/downloads/cmr/2015guidancemanual.pdf>.

Nicole Moore
November 17, 2020
Page 4

CARB appreciates the opportunity to comment on the NOP for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. Please include CARB on your State Clearinghouse list of selected State agencies that will receive the DEIR as part of the comment period. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist, via email at stanley.armstrong@arb.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Richard Boyd".

Richard Boyd
Assistant Division Chief
Transportation and Toxics Division

Attachment

cc: See next page.

cc: State Clearinghouse
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ATTACHMENT A

Recommended Air Pollution Emission Reduction Measures for Warehouses and Distribution Centers

The California Air Resources Board (CARB) recommends developers and government planners use all existing and emerging zero to near-zero emission technologies during project construction and operation to minimize public exposure to air pollution. Below are some measures, currently recommended by CARB, specific to warehouse and distribution center projects. These recommendations are subject to change as new zero-emission technologies become available.

Recommended Construction Measures

1. Ensure the cleanest possible construction practices and equipment are used. This includes eliminating the idling of diesel-powered equipment and providing the necessary infrastructure (e.g., electrical hookups) to support zero and near-zero equipment and tools.
2. Implement, and plan accordingly for, the necessary infrastructure to support the zero and near-zero emission technology vehicles and equipment that will be operating on site. Necessary infrastructure may include the physical (e.g., needed footprint), energy, and fueling infrastructure for construction equipment, on-site vehicles and equipment, and medium-heavy and heavy-heavy duty trucks.
3. In construction contracts, include language that requires all off-road diesel-powered equipment used during construction to be equipped with Tier 4 or cleaner engines, except for specialized construction equipment in which Tier 4 engines are not available. In place of Tier 4 engines, off-road equipment can incorporate retrofits, such that, emission reductions achieved equal or exceed that of a Tier 4 engine.
4. In construction contracts, include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) used during project construction be battery powered.
5. In construction contracts, include language that requires all heavy-duty trucks entering the construction site, during the grading and building construction phases be model year 2014 or later. All heavy-duty haul trucks should also meet CARB's lowest optional low-oxides of nitrogen (NO_x) standard starting in the year 2022.¹

¹: In 2013, CARB adopted optional low-NO_x emission standards for on-road heavy-duty engines. CARB encourages engine manufacturers to introduce new technologies to reduce NO_x emissions below the current mandatory on-road heavy-duty diesel engine emission standards for model-year 2010 and later. CARB's optional low-NO_x emission standard is available at: <https://www.arb.ca.gov/msprog/onroad/optionnox/optionnox.htm>.

6. In construction contracts, include language that requires all construction equipment and fleets to be in compliance with all current air quality regulations. CARB is available to assist in implementing this recommendation.

Recommended Operation Measures

1. Include contractual language in tenant lease agreements that requires tenants to use the cleanest technologies available, and to provide the necessary infrastructure to support zero-emission vehicles and equipment that will be operating on site.
2. Include contractual language in tenant lease agreements that requires all loading/unloading docks and trailer spaces be equipped with electrical hookups for trucks with transport refrigeration units (TRU) or auxiliary power units. This requirement will substantially decrease the amount of time that a TRU powered by a fossil-fueled internal combustion engine can operate at the project site. Use of zero-emission all-electric plug-in TRUs, hydrogen fuel cell transport refrigeration, and cryogenic transport refrigeration are encouraged and can also be included in lease agreements.²
3. Include contractual language in tenant lease agreements that requires all TRUs entering the project site be plug-in capable.
4. Include contractual language in tenant lease agreements that requires future tenants to exclusively use zero-emission light and medium-duty delivery trucks and vans.
5. Include contractual language in tenant lease agreements requiring all TRUs, trucks, and cars entering the project site be zero-emission.
6. Include contractual language in tenant lease agreements that requires all service equipment (e.g., yard hostlers, yard equipment, forklifts, and pallet jacks) used within the project site to be zero-emission. This equipment is widely available.
7. Include contractual language in tenant lease agreements that requires all heavy-duty trucks entering or on the project site to be model year 2014 or later, expedite a transition to zero-emission vehicles, and be fully zero-emission beginning in 2030.

². CARB's technology assessment for transport refrigerators provides information on the current and projected development of TRUs, including current and anticipated costs. The assessment is available at: https://www.arb.ca.gov/msprog/tech/techreport/tru_07292015.pdf.

8. Include contractual language in tenant lease agreements that requires the tenant be in, and monitor compliance with, all current air quality regulations for on-road trucks including CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation,³ Periodic Smoke Inspection Program (PSIP),⁴ and the Statewide Truck and Bus Regulation.⁵
9. Include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than five minutes while on site.
10. Include contractual language in tenant lease agreements that limits on-site TRU diesel engine runtime to no longer than 15 minutes. If no cold storage operations are planned, include contractual language and permit conditions that prohibit cold storage operations unless a health risk assessment is conducted, and the health impacts fully mitigated.
11. Include rooftop solar panels for each proposed warehouse to the extent feasible, with a capacity that matches the maximum allowed for distributed solar connections to the grid.
12. Including language in tenant lease agreements, requiring the installing of vegetative walls⁶ or other effective barriers that separate loading docks and people living or working nearby.

³. In December 2008, CARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty tractors that pull 53-foot or longer box-type trailers. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation is available at: <https://www.arb.ca.gov/cc/hdghg/hdghg.htm>.

⁴. The PSIP program requires that diesel and bus fleet owners conduct annual smoke opacity inspections of their vehicles and repair those with excessive smoke emissions to ensure compliance. CARB's PSIP program is available at: <https://www.arb.ca.gov/enf/hdvp/hdvp.htm>.

⁵. The regulation requires that newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model-year engines or equivalent. CARB's Statewide Truck and Bus Regulation is available at: <https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>.

⁶. Effectiveness of Sound Wall-Vegetation Combination Barriers as Near-Roadway Pollutant Mitigation Strategies (2017) is available at: <https://www2.arb.ca.gov/sites/default/files/classic/research/apr/past/13-306.pdf>.



Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act

In carrying out its duty to enforce laws across California, the California Attorney General's Bureau of Environmental Justice (Bureau)¹ regularly reviews proposed warehouse projects for compliance with the California Environmental Quality Act (CEQA) and other laws. When necessary, the Bureau submits comment letters to lead agencies, and in rare cases the Bureau has filed litigation to enforce CEQA.² This document builds upon the Bureau's comment letters, collecting knowledge gained from the Bureau's review of hundreds of warehouse projects across the state. It is meant to help lead agencies pursue CEQA compliance and promote environmentally-just development as they confront warehouse project proposals.³ While CEQA analysis is necessarily project-specific, this document provides information on feasible best practices and mitigation measures, the overwhelming majority of which have been adapted from actual warehouse projects in California.

I. Background

In recent years, the proliferation of e-commerce and rising consumer expectations of rapid shipping have contributed to a boom in warehouse development.⁴ California, with its ports, population centers, and transportation network, has found itself at the center of this trend. For example, in 2014, 40 percent of national container cargo flowed through Southern California, which was home to nearly 1.2 billion square feet of warehouse facilities.⁵ In the Inland Empire alone, 150 million square feet of new industrial space was built over the last decade,⁶ and 21 of the largest 100 logistics leases signed in 2019 nationwide were in the Inland

¹ <https://oag.ca.gov/environment/justice>.

² <https://oag.ca.gov/environment/ceqa/letters>; *South Central Neighbors United et al. v. City of Fresno et al.* (Super. Ct. Fresno County, No. 18CECG00690).

³ Anyone reviewing this document to determine CEQA compliance responsibilities should consult their own attorney for legal advice.

⁴ As used in this document, "warehouse" or "logistics facility" is defined as a facility consisting of one or more buildings that stores cargo, goods, or products on a short or long term basis for later distribution to businesses and/or retail customers.

⁵ Industrial Warehousing in the SCAG Region, Task 2. Inventory of Warehousing Facilities (April 2018), http://www.scag.ca.gov/Documents/Task2_FacilityInventory.pdf at 1-1, 2-11.

⁶ Los Angeles Times, *When your house is surrounded by massive warehouses*, October 27, 2019, <https://www.latimes.com/california/story/2019-10-27/fontana-california-warehouses-inland-empire-pollution>.

Empire, comprising 17.5 million square feet.⁷ This trend has not slowed, even with the economic downturn caused by COVID-19, as e-commerce has continued to grow.⁸ Forecasts predict that the Central Valley is where a new wave of warehouse development will go.⁹

When done properly, these activities can contribute to the economy and consumer welfare. However, imprudent warehouse development can harm local communities and the environment. Among other pollutants, diesel trucks visiting warehouses emit nitrogen oxide (NO_x)—a primary precursor to smog formation and a significant factor in the development of respiratory problems like asthma, bronchitis, and lung irritation—and diesel particulate matter (a subset of fine particular matter that is smaller than 2.5 micrometers)—a contributor to cancer, heart disease, respiratory illnesses, and premature death.¹⁰ Trucks and on-site loading activities can also be loud, bringing disruptive noise levels during 24/7 operation that can cause hearing damage after prolonged exposure.¹¹ The hundreds, and sometimes thousands, of daily truck and passenger car trips that warehouses generate contribute to traffic jams, deterioration of road surfaces, and traffic accidents. These environmental impacts also tend to be concentrated in neighborhoods already suffering from disproportionate health impacts.

⁷ CBRE, *Dealmakers: E-Commerce & Logistics Firms Drive Demand for Large Warehouses in 2019* (January 23, 2020), <https://www.cbre.us/research-and-reports/US-MarketFlash-Dealmakers-E-Commerce-Logistics-Firms-Drive-Demand-for-Large-Warehouses-in-2019>; see also CBRE, *E-Commerce and Logistics Companies Expand Share Of Largest US Warehouse Leases, CBRE Analysis Finds* (Feb. 25, 2019), <https://www.cbre.us/about/media-center/inland-empire-largest-us-warehouse-leases> (20 of the largest 100 warehousing leases in 2018 were in the Inland Empire, comprising nearly 20 million square feet).

⁸ CBRE, 2021 U.S. Real Estate Market Outlook, Industrial & Logistics, <https://www.cbre.us/research-and-reports/2021-US-Real-Estate-Market-Outlook-Industrial-Logistics>; Kaleigh Moore, *As Online Sales Grow During COVID-19, Retailers Like Montce Swim Adapt And Find Success*, FORBES (June 24, 2020), available at <https://www.forbes.com/sites/kaleighmoore/2020/06/24/as-online-sales-grow-during-covid-19-retailers-like-montce-swim-adapt-and-find-success/>.

⁹ New York Times, *Warehouses Are Headed to the Central Valley, Too* (Jul. 22, 2020), available at <https://www.nytimes.com/2020/07/22/us/coronavirus-ca-warehouse-workers.html>.

¹⁰ California Air Resources Board, Nitrogen Dioxide & Health, <https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health> (NO_x); California Air Resources Board, Summary: Diesel Particulate Matter Health Impacts, <https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts>; Office of Environmental Health Hazard Assessment and American Lung Association of California, Health Effects of Diesel Exhaust, <https://oehha.ca.gov/media/downloads/calenviroscreen/indicators/diesel4-02.pdf> (DPM).

¹¹ Noise Sources and Their Effects, <https://www.chem.purdue.edu/chemsafety/Training/PPETrain/dblevels.htm> (a diesel truck moving 40 miles per hour, 50 feet away, produces 84 decibels of sound).

II. Proactive Planning: General Plans, Local Ordinances, and Good Neighbor Policies

To systematically address warehouse development, we encourage governing bodies to proactively plan for logistics projects in their jurisdictions. Proactive planning allows jurisdictions to prevent land use conflicts before they materialize and guide sustainable development. Benefits also include providing a predictable business environment, protecting residents from environmental harm, and setting consistent expectations jurisdiction-wide.

Proactive planning can take any number of forms. Land use designation and zoning decisions should channel development into appropriate areas. For example, establishing industrial districts near major highway and rail corridors but away from sensitive receptors can help avoid conflicts between warehouse facilities and residential communities.

In addition, general plan policies, local ordinances, and good neighbor policies should set minimum standards for logistics projects. General plan policies can be incorporated into existing economic development, land use, circulation, or other related elements. Many jurisdictions alternatively choose to consolidate policies in a separate environmental justice element. Adopting general plan policies to guide warehouse development may also help jurisdictions comply with their obligations under SB 1000, which requires local government general plans to identify objectives and policies to reduce health risks in disadvantaged communities, promote civil engagement in the public decision making process, and prioritize improvements and programs that address the needs of disadvantaged communities.¹²

The Bureau is aware of four good neighbor policies in California: Riverside County, the City of Riverside, the City of Moreno Valley, and the Western Riverside Council of Governments.¹³ These policies provide minimum standards that all warehouses in the jurisdiction must meet. For example, the Western Riverside Council of Governments policy sets a minimum buffer zone of 300 meters between warehouses and sensitive receptors, and it requires a number of design features to reduce truck impacts on nearby sensitive receptors. The Riverside County policy requires vehicles entering sites during both construction and operation to meet certain California Air Resources Board (CARB) guidelines, and it requires community benefits agreements and supplemental funding contributions toward additional pollution offsets.

The Bureau encourages jurisdictions to adopt their own local ordinances and/or good neighbor policies that combine the most robust policies from those models with measures discussed in the remainder of this document.

¹² For more information about SB 1000, see <https://oag.ca.gov/environment/sb1000>.

¹³ <https://www.rivcocob.org/wp-content/uploads/2020/01/Good-Neighbor-Policy-F-3-Final-Adopted.pdf> (Riverside County); <https://riversideca.gov/planning/pdf/good-neighbor-guidelines.pdf> (City of Riverside); http://qcode.us/codes/morenovalley/view.php?topic=9-9_05-9_05_050&frames=on (City of Moreno Valley); <http://www.wrcog.cog.ca.us/DocumentCenter/View/318/Good-Neighbor-Guidelines-for-Siting-Warehouse-Distribution-Facilities-PDF?bidId=> (Western Riverside Council of Governments).

III. Community Engagement

Early and consistent community engagement is central to establishing good relationships between communities, lead agencies, and warehouse developers and tenants. Robust community engagement can give lead agencies access to community residents' on-the-ground knowledge and information about their concerns, build community support for projects, and develop creative solutions to ensure new logistics facilities are mutually beneficial. Examples of best practices for community engagement include:

- Holding a series of community meetings at times and locations convenient to members of the affected community and incorporating suggestions into the project design.
- Posting information in hard copy in public gathering spaces and on a website about the project. The information should include a complete, accurate project description, maps and drawings of the project design, and information about how the public can provide input and be involved in the project approval process. The information should be in a format that is easy to navigate and understand for members of the affected community.
- Providing notice by mail to residents and schools within a certain radius of the project and along transportation corridors to be used by vehicles visiting the project, and by posting a prominent sign on the project site. The notice should include a brief project description and directions for accessing complete information about the project and for providing input on the project.
- Providing translation or interpretation in residents' native language, where appropriate.
- For public meetings broadcast online or otherwise held remotely, providing for access and public comment by telephone and supplying instructions for access and public comment with ample lead time prior to the meeting.
- Partnering with local community-based organizations to solicit feedback, leverage local networks, co-host meetings, and build support.
- Considering adoption of a community benefits agreement, negotiated with input from affected residents and businesses, by which the developer provides benefits to the community.
- Creating a community advisory board made up of local residents to review and provide feedback on project proposals in early planning stages.
- Identifying a person to act as a community liaison concerning on-site construction activity and operations, and providing contact information for the community relations officer to the surrounding community.

IV. Warehouse Siting and Design Considerations

The most important consideration when planning a logistics facility is its location. Warehouses located in residential neighborhoods or near other sensitive receptors expose community residents and those using or visiting sensitive receptor sites to the air pollution, noise, traffic, and other environmental impacts they generate. Therefore, placing facilities away from sensitive receptors significantly reduces their environmental and quality of life harms on local

communities. The suggested best practices for siting and design of warehouse facilities does not relieve lead agencies' responsibility under CEQA to conduct a project-specific analysis of the project's impacts and evaluation of feasible mitigation measures and alternatives; lead agencies' incorporation of the best practices must be part of the impact, mitigation and alternatives analyses to meet the requirements of CEQA. Examples of best practices when siting and designing warehouse facilities include:

- Per CARB guidance, siting warehouse facilities so that their property lines are at least 1,000 feet from the property lines of the nearest sensitive receptors.¹⁴
- Creating physical, structural, and/or vegetative buffers that adequately prevent or substantially reduce pollutant dispersal between warehouses and any areas where sensitive receptors are likely to be present, such as homes, schools, daycare centers, hospitals, community centers, and parks.
- Providing adequate areas for on-site parking, on-site queuing, and truck check-in that prevent trucks and other vehicles from parking or idling on public streets.
- Placing facility entry and exit points from the public street away from sensitive receptors, e.g., placing these points on the north side of the facility if sensitive receptors are adjacent to the south side of the facility.
- Locating warehouse dock doors and other onsite areas with significant truck traffic and noise away from sensitive receptors, e.g., placing these dock doors on the north side of the facility if sensitive receptors are adjacent to the south side of the facility.
- Screening dock doors and onsite areas with significant truck traffic with physical, structural, and/or vegetative barriers that adequately prevent or substantially reduce pollutant dispersal from the facility towards sensitive receptors.
- Posting signs clearly showing the designated entry and exit points from the public street for trucks and service vehicles.
- Posting signs indicating that all parking and maintenance of trucks must be conducted within designated on-site areas and not within the surrounding community or public streets.

V. Air Quality and Greenhouse Gas Emissions Analysis and Mitigation

Emissions of air pollutants and greenhouse gases are often among the most substantial environmental impacts from new warehouse facilities. CEQA compliance demands a proper accounting of the full air quality and greenhouse gas impacts of logistics facilities and adoption of all feasible mitigation of significant impacts. Although efforts by CARB and other authorities to regulate the heavy-duty truck and off-road diesel fleets have made excellent progress in reducing the air quality impacts of logistics facilities, the opportunity remains for local jurisdictions to further mitigate these impacts at the project level. Lead agencies and developers

¹⁴ California Air Resources Board (CARB), Air Quality and Land Use Handbook: A Community Health Perspective (April 2005), at ES-1. CARB staff has released draft updates to this siting and design guidance which suggests a greater distance may be warranted under varying scenarios; this document may be found on CARB's website and is entitled: "California Sustainable Freight Initiative: Concept Paper for the Freight Handbook" (December 2019).

should also consider designing projects with their long-term viability in mind. Constructing the necessary infrastructure to prepare for the zero-emission future of goods movement not only reduces a facility's emissions and local impact now, but it can also save money as regulations tighten and demand for zero-emission infrastructure grows. In planning new logistics facilities, the Bureau strongly encourages developers to consider the local, statewide, and global impacts of their projects' emissions.

Examples of best practices when studying air quality and greenhouse gas impacts include:

- Fully analyzing all reasonably foreseeable project impacts, including cumulative impacts. In general, new warehouse developments are not ministerial under CEQA because they involve public officials' personal judgment as to the wisdom or manner of carrying out the project, even when warehouses are permitted by a site's applicable zoning and/or general plan land use designation. CEQA Guidelines § 15369.
- When analyzing cumulative impacts, thoroughly considering the project's incremental impact in combination with past, present, and reasonably foreseeable future projects, even if the project's individual impacts alone do not exceed the applicable significance thresholds.
- Preparing a quantitative air quality study in accordance with local air district guidelines.
- Preparing a quantitative health risk assessment in accordance with California Office of Environmental Health Hazard Assessment and local air district guidelines.
- Refraining from labeling compliance with CARB or air district regulations as a mitigation measure—compliance with applicable regulations is a baseline expectation.
- Fully analyzing impacts from truck trips. CEQA requires full public disclosure of a project's anticipated truck trips, which entails calculating truck trip length based on likely truck trip destinations, rather than the distance from the facility to the edge of the air basin. Emissions beyond the air basin are not speculative, and, because air pollution is not static, may contribute to air basin pollution. Moreover, any contributions to air pollution outside the local air basin should be quantified and their significance should be considered.
- Accounting for all reasonably foreseeable greenhouse gas emissions from the project, without discounting projected emissions based on participation in California's Cap-and-Trade Program.

Examples of measures to mitigate air quality and greenhouse gas impacts from construction are below. To ensure mitigation measures are enforceable and effective, they should be imposed as permit conditions on the project where applicable.

- Requiring off-road construction equipment to be zero-emission, where available, and all diesel-fueled off-road construction equipment, to be equipped with CARB Tier IV-compliant engines or better, and including this requirement in applicable

bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant construction equipment for use prior to any ground-disturbing and construction activities.

- Prohibiting off-road diesel-powered equipment from being in the “on” position for more than 10 hours per day.
- Requiring on-road heavy-duty haul trucks to be model year 2010 or newer if diesel-fueled.
- Providing electrical hook ups to the power grid, rather than use of diesel-fueled generators, for electric construction tools, such as saws, drills and compressors, and using electric tools whenever feasible.
- Limiting the amount of daily grading disturbance area.
- Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area.
- Forbidding idling of heavy equipment for more than two minutes.
- Keeping onsite and furnishing to the lead agency or other regulators upon request, all equipment maintenance records and data sheets, including design specifications and emission control tier classifications.
- Conducting an on-site inspection to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts.
- Using paints, architectural coatings, and industrial maintenance coatings that have volatile organic compound levels of less than 10 g/L.
- Providing information on transit and ridesharing programs and services to construction employees.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations for construction employees.

Examples of measures to mitigate air quality and greenhouse gas impacts from operation include:

- Requiring that all facility-owned and operated fleet equipment with a gross vehicle weight rating greater than 14,000 pounds accessing the site meet or exceed 2010 model-year emissions equivalent engine standards as currently defined in California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025. Facility operators shall maintain records on-site demonstrating compliance with this requirement and shall make records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring all heavy-duty vehicles entering or operated on the project site to be zero-emission beginning in 2030.
- Requiring on-site equipment, such as forklifts and yard trucks, to be electric with the necessary electrical charging stations provided.
- Requiring tenants to use zero-emission light- and medium-duty vehicles as part of business operations.
- Forbidding trucks from idling for more than two minutes and requiring operators to turn off engines when not in use.
- Posting both interior- and exterior-facing signs, including signs directed at all

dock and delivery areas, identifying idling restrictions and contact information to report violations to CARB, the air district, and the building manager.

- Installing and maintaining, at the manufacturer's recommended maintenance intervals, air filtration systems at sensitive receptors within a certain radius of facility for the life of the project.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the project, and making the resulting data publicly available in real time. While air monitoring does not mitigate the air quality or greenhouse gas impacts of a facility, it nonetheless benefits the affected community by providing information that can be used to improve air quality or avoid exposure to unhealthy air.
- Constructing electric truck charging stations proportional to the number of dock doors at the project.
- Constructing electric plugs for electric transport refrigeration units at every dock door, if the warehouse use could include refrigeration.
- Constructing electric light-duty vehicle charging stations proportional to the number of parking spaces at the project.
- Installing solar photovoltaic systems on the project site of a specified electrical generation capacity, such as equal to the building's projected energy needs.
- Requiring all stand-by emergency generators to be powered by a non-diesel fuel.
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks.
- Requiring operators to establish and promote a rideshare program that discourages single-occupancy vehicle trips and provides financial incentives for alternate modes of transportation, including carpooling, public transit, and biking.
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking.
- Achieving certification of compliance with LEED green building standards.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations.
- Posting signs at every truck exit driveway providing directional information to the truck route.
- Improving and maintaining vegetation and tree canopy for residents in and around the project area.
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses. Also require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring tenants to enroll in the United States Environmental Protection Agency's SmartWay program, and requiring tenants to use carriers that are SmartWay carriers.

- Providing tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

VI. Noise Impacts Analysis and Mitigation

The noise associated with logistics facilities can be among their most intrusive impacts to nearby sensitive receptors. Various sources, such as unloading activity, diesel truck movement, and rooftop air conditioning units, can contribute substantial noise pollution. These impacts are exacerbated by logistics facilities' typical 24-hour, seven-days-per-week operation. Construction noise is often even greater than operational noise, so if a project site is near sensitive receptors, developers and lead agencies should adopt measures to reduce the noise generated by both construction and operation activities.

Examples of best practices when studying noise impacts include:

- Preparing a noise impact analysis that considers all reasonably foreseeable project noise impacts, including to nearby sensitive receptors. All reasonably foreseeable project noise impacts encompasses noise from both construction and operations, including stationary, on-site, and off-site noise sources.
- Adopting a lower significance threshold for incremental noise increases when baseline noise already exceeds total noise significance thresholds, to account for the cumulative impact of additional noise and the fact that, as noise moves up the decibel scale, each decibel increase is a progressively greater increase in sound pressure than the last. For example, 70 dBA is ten times more sound pressure than 60 dBA.

Examples of measures to mitigate noise impacts include:

- Constructing physical, structural, or vegetative noise barriers on and/or off the project site.
- Locating or parking all stationary construction equipment as far from sensitive receptors as possible, and directing emitted noise away from sensitive receptors.
- Verifying that construction equipment has properly operating and maintained mufflers.
- Requiring all combustion-powered construction equipment to be surrounded by a noise protection barrier
- Limiting operation hours to daytime hours on weekdays.
- Paving roads where truck traffic is anticipated with low noise asphalt.
- Orienting any public address systems onsite away from sensitive receptors and setting system volume at a level not readily audible past the property line.

VII. Traffic Impacts Analysis and Mitigation

Warehouse facilities inevitably bring truck and passenger car traffic. Truck traffic can present substantial safety issues. Collisions with heavy-duty trucks are especially dangerous for passenger cars, motorcycles, bicycles, and pedestrians. These concerns can be even greater if

truck traffic passes through residential areas, school zones, or other places where pedestrians are common and extra caution is warranted.

Examples of measures to mitigate traffic impacts include:

- Designing, clearly marking, and enforcing truck routes that keep trucks out of residential neighborhoods and away from other sensitive receptors.
- Installing signs in residential areas noting that truck and employee parking is prohibited.
- Constructing new or improved transit stops, sidewalks, bicycle lanes, and crosswalks, with special attention to ensuring safe routes to schools.
- Consulting with the local public transit agency and securing increased public transit service to the project area.
- Designating areas for employee pickup and drop-off.
- Implementing traffic control and safety measures, such as speed bumps, speed limits, or new traffic signs or signals.
- Placing facility entry and exit points on major streets that do not have adjacent sensitive receptors.
- Restricting the turns trucks can make entering and exiting the facility to route trucks away from sensitive receptors.
- Constructing roadway improvements to improve traffic flow.
- Preparing a construction traffic control plan prior to grading, detailing the locations of equipment staging areas, material stockpiles, proposed road closures, and hours of construction operations, and designing the plan to minimize impacts to roads frequented by passenger cars, pedestrians, bicyclists, and other non-truck traffic.

VIII. Other Significant Environmental Impacts Analysis and Mitigation

Warehouse projects may result in significant environmental impacts to other resources, such as to aesthetics, cultural resources, energy, geology, or hazardous materials. All significant adverse environmental impacts must be evaluated, disclosed and mitigated to the extent feasible under CEQA. Examples of best practices and mitigation measures to reduce environmental impacts that do not fall under any of the above categories include:

- Appointing a compliance officer who is responsible for implementing all mitigation measures, and providing contact information for the compliance officer to the lead agency, to be updated annually.
- Creating a fund to mitigate impacts on affected residents, schools, places of worship, and other community institutions by retrofitting their property. For example, retaining a contractor to retrofit/install HVAC and/or air filtration systems, doors, dual-paned windows, and sound- and vibration-deadening insulation and curtains.
- Sweeping surrounding streets on a daily basis during construction to remove any construction-related debris and dirt.
- Directing all lighting at the facility into the interior of the site.

- Using full cut-off light shields and/or anti-glare lighting.
- Using cool pavement to reduce heat island effects.
- Installing climate control in the warehouse facility to promote worker well-being.
- Installing air filtration in the warehouse facility to promote worker well-being.

IX. Conclusion

California's world-class economy, ports, and transportation network position it at the center of the e-commerce and logistics industry boom. At the same time, California is a global leader in environmental protection and environmentally just development. The guidance in this document furthers these dual strengths, ensuring that all can access the benefits of economic development. The Bureau will continue to monitor proposed projects for compliance with CEQA and other laws. Lead agencies, developers, community advocates, and other interested parties should feel free to reach out to us as they consider how to guide warehouse development in their area.

Please do not hesitate to contact the Environmental Justice Bureau at ej@doj.ca.gov if you have any questions.

From: Scott Lichtig <Scott.Lichtig@doj.ca.gov>
Sent: Tuesday, November 23, 2021 8:18 AM
To: Nicole Moore <Nicole.Moore@stocktonca.gov>
Subject: South Stockton Commerce Center Project DEIR

CAUTION: This email originated from outside the City of Stockton. Do not click any links or open attachments if this is unsolicited email.

Ms. Moore-

The Attorney General's Office appreciates the opportunity to review the DEIR for the South Stockton Commerce Center (SCH# 2020090561). Attached for your consideration is the Attorney General's "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." We encourage Stockton to review the enforceable and feasible mitigation measures included in Section V "Air Quality and Greenhouse Gas Emissions Analysis and Mitigation."

Thank you again for the opportunity to review the DEIR and provide Stockton with this guidance. Please feel free to contact me with any questions.

Sincerely,

Scott Lichtig

Deputy Attorney General

Environment Section | Bureau of Environmental Justice

California Attorney General's Office

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CA AGO - Warehouse Projects Best Practices and Mitigation Measures to Comply with CEQA.pdf

168K

Central Valley Regional Water Quality Control Board

29 November 2021

Nicole Moore
City of Stockton
345 North El Dorado Street
Stockton, CA 95202
Nicole.Moore@stocktonca.gov

COMMENTS TO REQUEST FOR REVIEW FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, SOUTH STOCKTON COMMERCE CENTER PROJECT, SCH#2020090561, SAN JOAQUIN COUNTY

Pursuant to the State Clearinghouse's 14 October 2021 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Draft Environmental Impact Report* for the South Stockton Commerce Center Project, located in San Joaquin County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:

http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:

https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_2018_05.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

D-2
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D-3

D-4

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

D-5

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ. For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

D-6

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

D-7

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality/certification/

D-8

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

D-9

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board’s Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

D-10

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

D-10
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For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

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If you have questions regarding these comments, please contact me at (916) 464-4856 or Nicholas.White@waterboards.ca.gov.



Nicholas White
Water Resource Control Engineer

cc: State Clearinghouse unit, Governor's Office of Planning and Research,
Sacramento



Environmental Health Department

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October 28, 2021

To: City of Stockton
Attention: Nicole Moore, Planning Manager

From: Jeffrey Wong; (209) 468-0335
Lead Senior Registered Environmental Health Specialist

RE: **South Stockton Commerce Center – Draft Environmental Impact Report, SU0014475 (2688)**

The San Joaquin County Environmental Health Department (EHD) recommends the following conditions as a part of developing this project:

E-1

1. Any existing wells or septic systems to be abandoned shall be destroyed under permit and inspection by the EHD (San Joaquin County Development Title, Section 9-1110.3 & 9-1110.4)
2. Any geotechnical drilling shall be conducted under permit and inspection by The Environmental Health Department (San Joaquin County Development Title, Section 9-1115.3 and 9-1115.6).

E-2

E-3



December 14, 2021

Nicole Moore
City of Stockton
Community Development Department
345 N El Dorado Street
Stockton, CA 95202

Project: Draft Environmental Impact Report for South Stockton Commerce Center Project

District CEQA Reference No: 20211169

Dear Ms. Moore:

The San Joaquin Valley Air Pollution Control District (District) has reviewed the City of Stockton's (City) Draft Environmental Impact Report (DEIR) for South Stockton Commerce Center. Per the DEIR, the proposed project consists of the construction and operation of 6,091,551 square feet of industrial development, in addition to 140,350 square feet of commercial development on a 422.22 acre-site (Project). The Project is located west of the 99 Frontage Road and State Route 99, and east of Airport Way in Stockton, CA.

F-1

The District offers the following comments:

1) Assembly Bill 617

Assembly Bill 617 requires CARB and air districts to develop and implement Community Emission Reduction Programs (CERPs) in an effort to reduce air pollution exposure in impacted disadvantage communities. The Project lies near one of the impacted communities in the State selected by the California Air Resources Board (CARB) under the Assembly Bill (AB) 617 (2017, Garcia) and has the potential to expose sensitive receptors to increased air pollution within the nearby impacted community. The Stockton CERP was adopted by the District's Governing Board in March 2021 and identifies a wide range of measures designed to reduce air pollution exposure. Therefore, in an effort to reduce air pollution exposure to the impacted disadvantaged community, the District recommends the City incorporate mitigation measures outlined in the Stockton CERP for the Project which can be found at: <https://community.valleyair.org/media/2487/final-stockton-cerp-no-appendix-with-cover.pdf>.

F-2

Samir Sheikh

Executive Director/Air Pollution Control Officer

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2) **Construction Emissions**

The DEIR, specifically Table 3.3-7 (Construction Project Generated Tons per Year – Mitigated) identifies the maximum annual criteria pollutant emissions for a given year within the Project's estimated multi-year construction period. The DEIR specifically Table 3.3-7, should be revised to include the estimated criteria pollutant emissions for each construction year within the Project's estimated multi-year construction period and compare to the District's significance thresholds. This will fully demonstrate to the public the construction-related air quality impacts from the Project.

F-3

Additionally, construction air emissions are short-term emissions generated from construction activities such as mobile heavy-duty diesel off-road equipment. Since the Project's construction-related NOx emissions exceed District significance thresholds, the City should consider incorporating the below measure into the Project.

Recommended Measure: To reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment, including the latest tier equipment.

3) **Operational Emissions**

The DEIR did not characterize an appropriate trip length distance for off-site heavy heavy-duty (HHD) truck travel. Based on the following factors: 1) the Project consists of industrial and commercial development and is expected to generate a high volume of HHD truck trips, and 2) HHD trucks generally travel further distances for distribution, it appears inaccurate to incorporate a default delivery trip length assumption of 7.3 miles as reflected in the California Emissions Estimator Model (CalEEMod) analysis.

F-4

Based on the above, the Project operational emissions may be significantly underestimated. Therefore, the District recommends the DEIR be revised to include a discussion characterizing an appropriate trip length distance for HHD truck travel, and reflect the appropriate distance in the air quality emissions analysis for consistency.

4) **Feasibility of implementing a Voluntary Emission Reduction Agreement**

The Project's construction-related and operation-related emissions are expected to exceed District significance thresholds, resulting in a significant impact on air quality. Therefore, the DEIR should include a discussion on the feasibility of implementing a Voluntary Emission Reduction Agreement (VERA) for this Project.

F-5

A VERA is a mitigation measure by which the project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emission reduction projects, with the District serving a role of administrator of the emissions reduction projects and verifier of the successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate project specific emissions by providing funds for the District's incentives programs. The funds are disbursed by the District in the form of grants for projects that achieve emission reductions. Thus, project-related impacts on air quality can be mitigated. Types of emission reduction projects that have been funded in the past include electrification of stationary internal combustion engines (such as agricultural irrigation pumps), replacing old heavy-duty trucks with new, cleaner, more efficient heavy-duty trucks, and replacement of old farm tractors.

F-5
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In implementing a VERA, the District verifies the actual emission reductions that have been achieved as a result of completed grant contracts, monitors the emission reduction projects, and ensures the enforceability of achieved reductions. After the project is mitigated, the District certifies to the Lead Agency that the mitigation is completed, providing the Lead Agency with an enforceable mitigation measure demonstrating that project-related emissions have been mitigated. To assist the Lead Agency and project proponent in ensuring that the DEIR is compliant with CEQA, the District recommends the DEIR include an assessment of the feasibility of implementing a VERA.

5) Truck Routing

Truck routing involves the assessment of which roads HHD trucks take to and from their destination, and the emissions impact that the HHD trucks may have on residential communities and sensitive receptors. Based on the information provided, the Project consists of industrial and commercial development that is expected to generate a high volume of HHD truck trips (e.g. warehouses with deliveries).

The District recommends the City evaluate HHD truck routing within the scope of the Project, with the aim of limiting exposure of residential communities and sensitive receptors to emissions. This evaluation would consider the current truck routes, the quantity and type of each truck (e.g. Medium Heavy-Duty, HHD, etc.), the destination and origin of each trip, traffic volume correlation with the time of day or the day of the week, overall VMT, and associated exhaust emissions. The truck routing evaluation would also identify alternative truck routes and their impacts on VMT, and air quality.

F-6

6) Cleanest Available Heavy Duty Trucks

The San Joaquin Valley will not be able to attain stringent health-based federal air quality standards without significant reductions in emissions from HHD trucks, the single largest source of NO_x emissions in the San Joaquin Valley. The District's 2018 PM_{2.5} Plan includes significant new reductions from HHD trucks, including emissions reductions by 2023 through the implementation of CARB's Statewide Truck and Bus Regulation, which requires truck fleets operating in California to meet the 2010 standard of 0.2 g-NO_x/bhp-hr by 2023. Additionally, to meet federal air quality attainment standards, the District's Plan relies on a significant and immediate transition of HHD fleets to zero or near-zero emissions technologies, including the near-zero truck standard of 0.02 g/bhp-hr NO_x established by CARB.

F-7

The Project will include industrial use development and is expected to generate a high volume of HHD truck trips per day (e.g. warehouses with deliveries). Therefore, the District recommends that the following measures be considered by the City for inclusion into the Project to reduce Project-related operational emissions:

- *Recommended Measure:* Fleets associated with operational activities utilize the cleanest available HHD trucks, including zero and near-zero (0.02 g/bhp-hr NO_x) technologies.

7) Reduce Idling of Heavy Duty Trucks

The goal of this strategy is to limit the potential for localized PM_{2.5} and toxic air contaminant impacts associated with failure to comply with the state's Heavy Duty anti-idling regulation (e.g. limiting vehicle idling to specific time limits). The Project consists of industrial and commercial development that is expected to generate a high volume of HHD truck trips per day. The diesel exhaust from excessive idling has the potential to impose significant adverse health and environmental impacts. Therefore, the City should consider deploying strategies to ensure compliance of the anti-idling regulation, especially near sensitive receptors, and discuss the importance of limiting the amount of idling within/near the Project site.

F-8

- *Recommended Measure:* Fleets limit vehicle idling pursuant to 13 CCR § 2485 and 13 CCR § 2480.

8) Electric On-Site Off-Road and On-Road Equipment

Since the Project consists of industrial and commercial development, the Project may have the potential to result in increased use of off-road equipment (i.e. forklifts) and/or on-road equipment (i.e. mobile yard trucks with the ability to move materials). The District recommends the following measure be considered by the City to incorporate electric or zero emission equipment used on-site for this Project.

F-9

- *Recommended Measure:* All on-site service equipment (forklifts, pallet jacks, etc.) utilize zero-emissions technologies.

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9) Health Risk Assessment

The District has reviewed the Project's Health Risk Assessment (HRA) and offers the following comments:

- The point source parameters included in the AERMOD model were the same for HHD truck transport refrigeration units (TRUs) and for HHD truck idling. The HRA should be revised to ensure TRU point source parameters reflect the Project's specific TRU dimensions and parameters. Please reference the District's Modeling Guidance for example TRU source parameters, which can be found at:
https://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm#modeling_guidance
- The AERMOD model used the non-default regulatory terrain option, "flat." The HRA should be revised to ensure the default terrain option in AERMOD, "elevated," is used to estimate the potential risk of the Project's operational emissions on nearby sensitive receptors.
- The AERMOD model excluded potential sensitive receptors south of the Project (e.g. residential units). The HRA should be revised to ensure all sensitive receptors near the Project are identified and included in the AERMOD model.
- Per Appendix B.3 (Analysis of Public Health Risks), the HRA assumed TRUs would operate 15 minutes per hour. However, TRUs are expected to operate for a longer duration. The HRA should include a discussion justifying the 15 minute per hour duration for TRUs. The HRA also identified that 15% of the total HHD trucks would have TRUs. The HRA should include the methodology used to determine the percentage of trucks with TRUs for the Project.
- Per Appendix B.3 (Analysis of Public Health Risks), the HRA utilized the average emission rate for summer and winter months assuming all HHD diesel trucks traveling to-and-from the Project site would be a 2009 or newer vehicle model. The HRA should include a discussion confirming and justifying the model years of all on-site HHD trucks associated with the Project.

F-10

- Per Appendix B.3 (Analysis of Public Health Risks), HHD truck off-site mobile emissions were not evaluated in the HRA for the Project. Therefore, the HRA should include mobile emissions associated with HHD trucks trips traveling 0.25 miles outside of the Project area, per the District Modeling Guidance.
- Per Appendix 1 (Emission Calculations), the HRA included emission rates (g/mile) associated with speed bins 10 and 30 miles per hour to calculate on-site HHD truck travel using the EMFAC2017 database. However, the District the HRA should be revised to include the average emission rate for the speeds 5, 10, 15, 20, and 25 miles per hour to calculate the operational on-site HHD truck travel emissions, per the District Modeling Guidance.
- Per Appendix 1 (Emission Calculations), the HRA included emission rates for operational mobile emissions assuming operation would begin in 2040. However, operation may occur before full-buildout is complete for the Project. Therefore, the District recommends that the HRA be revised to ensure operational emissions are assessed at the first year of operational use.
- If the Project is expected to buildout in phases, the HRA should reflect the subsequent phase buildout for construction and operational emissions. Additionally, after each subsequent phase, newly added receptors to the area should be included in the AERMOD model.
- Since construction is expected to occur over a 20-year period, diesel particulate matter (DPM) exhaust emissions are expected to cause long-term and short-term health impacts for nearby sensitive receptors. Therefore, the HRA should be revised to ensure cancer risk, as well as chronic and acute hazard index scores, are evaluated for nearby sensitive receptors for construction related DPM exhaust mobile emissions.
- The HARP2 model for the HRA excluded homegrown produce as a pathway for toxic emissions. The HRA should be revised to include homegrown produce as a pathway in the HARP2 model, per District policy APR 1906 (Framework for Performing Health Risk Assessments), which can be found at: https://www.valleyair.org/policies_per/Policies/APR-1906.pdf.

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- The HARP2 model for the HRA applied “fraction of time” at residences for the inhalation pathway exposure. The HRA should be revised to ensure the applied “fraction of time” at residences is not selected in the HARP2 model, per District policy APR 1906 (Framework for Performing Health Risk Assessments), which can be found at: https://www.valleyair.org/policies_per/Policies/APR-1906.pdf.
- The HARP2 model used the residential receptor type for the worker cancer risk assessment. The HRA should be revised to ensure the worker receptor type is used in the HARP2 model when evaluating the cancer health risk, chronic, and acute hazard index scores for nearby worker receptors. Additionally, the HRA should be revised to include a worker adjustment factor in the HARP2 model that reflects the Project operating schedule. For example, if the Project operates 7 days a week, 8 hours a day, and 52 weeks a year, the worker adjustment factor of 4.2 should be applied in the HARP2 model.

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Based on the above comments, the District recommends the HRA be revised to ensure the analysis adequately assesses the Project’s potential health impacts to nearby sensitive receptors.

10)Ambient Air Quality Analysis

An Ambient Air Quality Analysis (AAQA) uses air dispersion modeling to determine if emission increases from a project will cause or contribute to a violation of State or National Ambient Air Quality Standards. Since the Project’s emissions exceed 100 pounds per day, an AAQA should be performed for the Project.

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Specific information for assessing significance, including screening tools and modeling guidance, is available online at the District’s website: www.valleyair.org/ceqa.

11)Vegetative Barriers and Urban Greening

There are residential units located southeast and west of the Project. The District suggests the City consider the feasibility of incorporating vegetative barriers and urban greening as a measure to further reduce air pollution exposure on sensitive receptors (e.g. residential units).

While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, vegetative barriers have been shown to be an additional measure to potentially reduce a population’s exposure to air pollution through the interception of airborne particles and the uptake of gaseous pollutants. Examples of vegetative barriers include, but are not limited to the following: trees, bushes, shrubs, or a mix of these. Generally, a higher and thicker

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vegetative barrier with full coverage will result in greater reductions in downwind pollutant concentrations. In the same manner, urban greening is also a way to help improve air quality and public health in addition to enhancing the overall beautification of a community with drought tolerant low maintenance greenery.

F-12
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12)Clean Lawn and Garden Equipment in the Community

Since the Project consists of commercial development, gas-powered commercial lawn and garden equipment have the potential to result in an increase of NOx and PM2.5 emissions. Utilizing electric lawn care equipment can provide residents with immediate economic, environmental, and health benefits. The District's Clean Green Yard Machines (CGYM) program, which provides incentive funding for replacement of existing gas powered lawn and garden equipment. The District suggests the Project consider the feasibility of utilizing electric lawn care equipment. More information on the District CGYM program and funding can be found at: <http://www.valleyair.org/grants/cgym.htm> and <http://valleyair.org/grants/cgym-commercial.htm>.

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13)On-Site Solar Deployment

It is the policy of the State of California that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045. While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, the production of solar energy is contributing to improving air quality and public health. The District suggests that the City consider incorporating solar power systems as an emission reduction strategy for the Project.

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14)Charge Up! Electric Vehicle Chargers

To support further installation of electric vehicle charging equipment and development of such infrastructure, the District offers incentives to public agencies, businesses, and property owners of multi-unit dwellings to install electric charging infrastructure (Level 2 and 3 chargers). The purpose of this incentive program is to promote clean air alternative-fuel technologies and the use of low or zero-emission vehicles. The District suggests that the City and Project proponents consider the feasibility of installing electric vehicle chargers for this Project.

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Please visit www.valleyair.org/grants/chargeup.htm for more information.

15)District Rules and Regulations

The District issues permits for many types of air pollution sources and regulates some activities not requiring permits. A project subject to District rules and regulation would reduce its impacts on air quality through compliance with regulatory

F-16

requirements. In general, a regulation is a collection of rules, each of which deals with a specific topic. For example, *Regulation II - Permits* encompasses multiple rules associated with the permitting of emission sources such as Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), and others.

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15a) District Rule 9510 - Indirect Source Review

The purpose of District Rule 9510 (Indirect Source Review) is to reduce the growth in both NO_x and PM₁₀ emissions associated with development and transportation projects from mobile and area sources associated with construction and operation of development projects. The rule encourages clean air design elements to be incorporated into the development project. In case the proposed project clean air design elements are insufficient to meet the targeted emission reductions, the rule requires developers to pay a fee used to fund projects to achieve off-site emissions reductions.

The DEIR states, specifically Mitigation Measure 3.3-1 “...each project applicant shall coordinate with the SJVAPCD to ensure compliance with Rule 9510 for both operational and construction emissions. The intent is that each phase of development would demonstrate that in the individual project does not exceed the applicable SJVAPCD criteria pollutant thresholds for each project operations or construction. If the SJVAPCD criteria pollutant emissions for an individual project is exceeded, the project applicant shall develop a reasonably feasible offsite mitigation strategy to reduce long-term air quality impacts to below the applicable SJVPACD thresholds of significance. This may consist of fee payments to the SJVAPCD for their use in funding offsite mitigation strategies.”

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To clarify, the entire Project is subject to District Rule 9510 because it will receive a project-level discretionary approval from a public agency and will equal or exceed 25,000 square feet of light industrial space. When subject to the rule, an Air Impact Assessment (AIA) application is required no later than applying for project-level approval from a public agency. In this case, if not already done, please inform the Project proponent to immediately submit one AIA application covering the entire Project to the District to comply with District Rule 9510.

In addition, per section 2.5.2 of District Rule 9510, “non-residential projects with contiguous or adjacent property under common ownership of a single entity in whole or in part, that is designated and zoned for the same development density and land use, and has the capability to accommodate development projects emitting more than two (2.0) tons per year of operational NO_x or PM₁₀ when determining applicability of the rule under Section 2.1,...,are subject to this rule. Single parcels where the individual building pads are to be developed in phases must base emissions on the potential development of all pads when

determining the applicability of this rule.” Additionally section 9.0 of District Rule 9510 provides criteria for notifying the District in a scenario for which a portion of the Project changes ownership.

An AIA application is required and the District recommends that demonstration of submitting the AIA application to the District, before issuance of the first building permit, be made a condition of Project approval.

- Information about how to comply with District Rule 9510 can be found online at:
<http://www.valleyair.org/ISR/ISRHome.htm>.
- The AIA application form can be found online at:
<http://www.valleyair.org/ISR/ISRFormsAndApplications.htm>

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15b) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources

Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 (Permits Required) requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201 (New and Modified Stationary Source Review) requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology (BACT).

This Project may have certain activities subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District permits.

Prior to commencing construction on any permit-required equipment or process, a finalized ATC must be issued to the Project proponent by the District. For further information or assistance, the Project proponent may contact the District's Small Business Assistance (SBA) Office at (209) 557-6446.

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15c) District Rule 9410 (Employer Based Trip Reduction)

The Project may be subject to District Rule 9410 (Employer Based Trip Reduction) if the project would result in employment of 100 or more “eligible” employees. District Rule 9410 requires employers with 100 or more “eligible” employees at a worksite to establish an Employer Trip Reduction Implementation Plan (eTRIP) that encourages employees to reduce single-occupancy vehicle trips, thus reducing pollutant emissions associated with work

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commutes. Under an eTRIP plan, employers have the flexibility to select the options that work best for their worksites and their employees.

Information about District Rule 9410 can be found online at:
www.valleyair.org/tripreduction.htm.

For additional information, you can contact the District by phone at 559-230-6000 or by e-mail at etrip@valleyair.org.

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15d) District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants)

In the event an existing building will be renovated, partially demolished or removed, the Project may be subject to District Rule 4002. This rule requires a thorough inspection for asbestos to be conducted before any regulated facility is demolished or renovated. Information on how to comply with District Rule 4002 can be found online at:
<http://www.valleyair.org/busind/comply/asbestosbultn.htm>.

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15e) District Regulation VIII (Fugitive PM10 Prohibitions)

The Project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities*.

The application for both the Construction Notification and Dust Control Plan can be found online at:
<https://www.valleyair.org/busind/comply/PM10/forms/DCP-Form.docx>

Information about District Regulation VIII can be found online at:
http://www.valleyair.org/busind/comply/pm10/compliance_pm10.htm

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15f) Other District Rules and Regulations

The Project may also be subject to the following District rules: Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

The list of rules above is neither exhaustive nor exclusive. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm. To identify other District rules or regulations that apply to this Project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's SBA Office at (209) 557-6446.

F-22

16) District Comment Letter

The District recommends that a copy of the District's comments be provided to the Project proponent.

F-23

If you have any questions or require further information, please contact Diana Walker by e-mail at Diana.Walker@valleyair.org or by phone at (559) 230-5820.

F-24

Sincerely,

Brian Clements
Director of Permit Services



Mark Montelongo
Program Manager



SIERRA CLUB

DELTA-SIERRA GROUP
MOTHER LODE CHAPTER

*Delta-Sierra Group
Mother Lode Chapter
P.O. Box 9258
Stockton CA 95208*

Nicole Moore
City of Stockton
345 N. El Dorado Street
Stockton CA 95202
via email: Nicole.Moore@stocktonca.gov.

12.31.2021

Re: South Stockton Commerce Center Project Draft Environmental Impact Report

The Delta-Sierra Group reviewed the Notice of Preparation/Initial Study (NOP/IS) and submitted comments on 10.27.2020 for the South Stockton Commerce Center Project. As will be explained later in our comments we only came to learn of the availability of Draft Environmental Impact Report (DEIR) on 12.28.2021. The South Stockton Commerce Center Project is for the planned industrial development of 437.45 acres of agricultural lands located off Airport Way immediately north of the confluence with French Camp Slough and the North Fork of Little John's Creek.

SETTING



PROPOSED PROJECT

The Project includes a Tentative Map for the 437.45-acre site to create 13 development lots, two basin lots, one park lot, one open space lot, and one sewer pump station lot.

TABLE 2.0-2: SSCC LAND USE SUMMARY

LAND USE	ACREAGE (NET)	TOTAL SQUARE FEET PER LAND USE	FLOOR AREA RATIO	MAXIMUM SQUARE FEET
Commercial	11.0	467,834	0.30	140,350
Industrial ¹	298.0	12,960,747	0.47	6,091,551
Open Space	54.0	--	--	--
Public Facilities (Storm Basins, Outfall and Pump Stations)	41.0	--	--	--
Roadway Right of Way	18.2	--	--	--
TOTAL	422.2	--	--	6,231,901

NOTE: FOR PURPOSES OF THE ENVIRONMENTAL ANALYSIS, A RANGE OF INDUSTRIAL USES IS ASSUMED. THESE USES INCLUDE GENERAL LIGHT INDUSTRIAL, INDUSTRIAL PARK, WAREHOUSING, MINI-WAREHOUSE, HIGH-CUBE TRANSLOAD AND SHORT-TERM STORAGE WAREHOUSE, HIGH-CUBE FULFILLMENT CENTER WAREHOUSE, HIGH-CUBE PARCEL HUB WAREHOUSE, AND HIGH-CUBE COLD STORAGE WAREHOUSE.

G-2

The DEIR does not include a full disclosure of impacts for this speculative and discretionary project. A final and definitive site plan is not currently proposed. Planned mitigation and environmental impact analysis is based on a conceptual site plan which underestimates impacts and fails to address cumulative impacts resulting from the operation of the Project.

All mitigation must be paid for before any permit is issued. This is a speculative project with several owners to be involved in the future. Without a final definitive site plan and the piecemeal analysis of impacts proposed for the 13 individual projects, the public will not have an opportunity to evaluate whether or not the mitigation measures are adequate for the individual projects. CEQA provides a seat at the table whereas the review of individual projects would not likely be at a level that would require public notice and engagement. If the DEIR is not significantly modified to address our comments and those of others and recirculated, the FEIR will include mitigation measures deemed acceptable by the City of Stockton through 2045 and pose an environmental burden on already burdened residents.

Mitigations proposed in the DEIR should not be static but requirements adjusted as conditions change related to future climate, groundwater, flooding, transportation, or air quality that will warrant additional mitigation during Project development of this speculative project.

The City of Stockton must release the mitigation monitoring and reporting results to the public throughout the development process.

COMMUNITY INVOLVEMENT

An email was sent to the City of Stockton contact for the Project, Nicole Moore on 3.19.2021 to follow up on the NOP/IS comments submitted on 10.25.2020¹. This 3.19.2021 email expressed concerns about notification for the release of a draft environmental impact report and to provide a link for the Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act² which included best practices relating to community engagement.

G-3

¹ https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u14441/NOP_South_Commerce_10272020_F.pdf

² <https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf>

A subsequent email to the City of Stockton Project contact, Nicole Moore was sent on 3.19.2021 to follow up on the City of Stockton's 3.19.2021 response to our initial email of 3.19.202. This subsequent email requested clarification regarding the City of Stockton's CEQA process, ASK Stockton noticing, and the City of Stockton's CEQA process to comply with CEQA Guidelines. A suggestion was also made that the city as part of required outreach convene a committee to discuss possible city-specific adopted measures. No response to this email was received.

Yesterday, 12.28.2021, in the process of investigating a proposed housing project identified on a map, we discovered that the DEIR review periods for a similar type of project, Mariposa Industrial Park and for the South Stockton Commerce Center Project had ended. The Mariposa Industrial Park Project was completely unknown to the Delta-Sierra Group because two public notices in the newspaper were missed. We requested in the 10.25.2020 correspondence to the City of Stockton that we be placed on a CEQA notification list, as will be further described below. This 10.25.20 request was ignored.

The City of Stockton's continued reliance on the minimum public notice of CEQA projects or public hearings ignores the reality of residents' ability to engage in community affairs as volunteers. The process of public notice involves publishing a public notice in a newspaper of largest general circulation, notifying the State Clearinghouse at the California Office of Planning and Research, and providing a public notice to the San Joaquin County Recorder-Clerk's Office. The Clerk's Office places a paper copy of the notice on a second-floor wall where their office is located, for public viewing during office hours of 8:00 AM to 5:00 PM.

The purpose of the California Environmental Quality Act (CEQA)³ is to:

- Prevent or minimize significant, avoidable damage to the environment.
- Disclose potential environmental effects of a proposed discretionary project, through a variety of publicly accessible documents.
- Encourage public participation in the environmental review and decision-making process.
- Ensure transparency in governmental decision-making process.

The CEQA Guidelines that were most recently published included the following statement:

§ 15087. Public Review of Draft EIR⁴

(a) Notice shall be mailed to the last known name and address of all organizations and individuals who have previously requested such notice in writing.

In our 10.27.2020 comment letter the Delta-Sierra Group stated the following in writing:

Please add the Delta-Sierra Group to your CEQA notification list. We became aware of the project through a CEQAnet link from a colleague. Please let us know if there is to be any public meeting regarding this project and when the draft environmental impact report becomes available to review. If you have any questions, you may contact me by email mebeth@outlook.com.

³ [https://www.conservation.ca.gov/dlrp/Pages/CA-Environmental-Quality-Act-\(CEQA\)-.aspx](https://www.conservation.ca.gov/dlrp/Pages/CA-Environmental-Quality-Act-(CEQA)-.aspx)

⁴ http://files.resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf

The DEIR included the following statements

“Additionally, a public scoping meeting was held during the public review period to solicit recommendations for a reasonable range of alternatives to the proposed Project. No specific alternatives were recommended by commenting agencies or the general public during the NOP public review process.”

We specifically asked for notification of a public meeting and no notification was provided by the City of Stockton. Additionally, the website where the South Stockton Commerce Center Project CEQA documents are found includes no notice of a specific public scoping meeting⁵.

The DEIR included the NOP/IS notice which included the following statements:

“A responsible agency, trustee agency, or other public agency may request a meeting with the City of Stockton or its representatives in accordance with Section 15082(c) of the CEQA Guidelines. A public scoping meeting and neighborhood meeting will be held during the public review period as follows:

1. Virtual Scoping and Neighborhood Meeting: To obtain the call-in and access information please RFVP with Nicole Moore, Acting Current Planning Manager at Nicole.Moore@stocktonca.gov.”

Our 10.27.2021 letter which was conveyed by email to Nicole.Moore@stocktonca.gov specifically requested to learn of the time for a public meeting. We were never notified of the time and date for this proposed public scoping and neighborhood meeting.

No notification of DEIR availability was provided by the City of Stockton, and we only learned of the DEIR availability on 12.28.2021 and initiated review and developed comments presented below. We hope that these comments will be included and considered when developing a revised DEIR or a Final Environmental Impact Report (FEIR) as the official comment period only ended on 12.14.2021.

DEIR IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Aesthetics and Visual Resources Mitigation Measure 3.1-1

The Project proposes approximately 54 acres of open space areas within the site, which will include approximately seven acres of open space in which a portion of it will be for a habitat setback area located east of the UPRR, south of the future Commerce Drive and along French Camp Slough. The remaining 47 acres of open space area is associated with the French Camp Slough drainage area. Additional open space is needed to accommodate flood flows on the North Fork of Little John’s Creek.

We are concerned with the newly proposed restriction on wildlife habitat setback area adjacent to the UPRR tracks. The restrictions on wildlife movement which construction of the proposed Project poses could create a situation where a protected wildlife corridor is needed to avoid increased wildlife kills due to rail or truck traffic. Additional habitat setback area is needed.

This open space is vital for localized wildlife habitat and must be protected from impacts related to the implementation of industrial/commercial future plans. A future lighting plan is to be submitted to the City of Stockton for review and should be made available for public review especially those that are wildlife and habitat experts to determine if the proposed plan will interfere with localized wildlife

⁵ <http://www.stocktonca.gov/government/departments/communityDevelop/cdSouth.html> pdf created

activities. Lighting mitigation of impacts related to wildlife habitat is not the same as lighting mitigation in an urbanized setting. Additional lighting mitigation is necessary.

There is a proposed grade-separated overpass of the UPRR line and a proposed railroad spur line to provide rail access throughout the Project. Designs of overpasses that are aesthetically pleasing can add significantly to the sense of place. Additionally, the proposed new road, Commerce Drive, is proposed to have a 78-foot right-of-way with one 16-foot traffic lane in each direction, and a 16-foot center turn lane. Five-foot landscaped areas would separate the traffic lanes from the 8-foot sidewalks on both the north and south sides of the road. All landscaping must be maintained by the Project proponent so as not to put further burdens on City of Stockton residents to fund on-going maintenance relating to this discretionary project. Onsite vegetation should also be considered to provide shading and reduce the heat island effect associated with the proposed asphalt paving as well as vegetative buffers between the Project and residential areas can help to reduce pollutant dispersal.

G-5
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Agricultural Resources Mitigation Measure 3.2-1

The proposed Project will result in the conversion of farmland including prime farmland and farmland of statewide importance as indicated by the Department of Conservation Land Division in their NOP/IS comments available to the public⁶. The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan specifically addresses loss of habitat not loss of agricultural activities on agricultural lands⁷. There are different fees related to habitat potential with a category for agricultural lands.

All of the existing land is in active agricultural uses and should require both City of Stockton Agricultural Land Mitigation (1:1)⁸ and San Joaquin County Habitat Mitigation based on a San Joaquin County Council of Government (SJCOG) biological study to determine mitigation level. The City of Stockton Agricultural Land Mitigation program was not referenced as part of the required mitigation.

Agricultural Land Mitigation Impact Fee - Central Valley Farmland Trust (CVFT): Under Municipal Code section 16-355.270, the City of Stockton has the authority to establish a Public Facilities Fee Program (PFF) on new development. In 2003, City Council approved resolution #2003-04-03-0105, establishing the PFF schedule. In 2007, the City Council agreed (through Council resolution #2007-02-07-0079) to add Agricultural Land Mitigation Fee to its Public Facilities Fee Program.

G-6

The City of Stockton Agricultural Land Mitigation Fee is collected for all applicable new development projects that would result from the conversion of important farmland, as defined by California Department of Conservation, into urban uses. All Agricultural Land Mitigation fees collected pursuant to the agreement should be remitted to Central California Farmland Trust. The Central Valley Farmland Trust is the land trust that facilitates the placement of agricultural conservation easements to fulfill farmland mitigation requirements in the Central Valley.

The Central Valley Farmland Trust does not fulfill the habitat mitigation required under the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan and the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan mitigation does not mitigate for the loss of agricultural production. Both mitigations should be required. The mitigation monitoring and reporting should include a full disclosure of agricultural land mitigation and should be readily available to the public.

⁶ https://files.ceqanet.opr.ca.gov/264972-2/attachment/dv3sIblipUFd4VLrSuQGv7_BAFI5DauZjy-ZTT4RRtvMnYAvi9wC9xnsdw9iaT_aegyYiiJ2hSU5GJ0

⁷ <https://www.sjcog.org/288/Habitat-Frequently-Asked-Questions>

⁸ <https://www.calandtrusts.org/wp-content/uploads/2014/03/Overview-of-Legal-Restains-on-Ag-Land-Mit-Programs.pdf>

Agricultural land mitigation only ensures that some other agricultural land cannot be easily developed through a conservation easement. Agricultural land mitigation does not create new agricultural land. Once the land is developed it is unlikely ever to return to food production.

We disagree that the Impact 3.2-2, relating to the conversion of nearby farmland to non-agricultural uses, is less than significant. The conversion of this land to non-agricultural uses will create additional development pressures on the surrounding farmland and should have been evaluated in the DEIR. For example, increased truck traffic will hinder agricultural operations that use the roadways. Monitoring of adjacent farmed land should be conducted throughout the life of the Project and if further agricultural lands are converted then the South Stockton Commerce Center Project proponents, developers, landowners should pay for additional agricultural land mitigation.

G-6
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The conversion of this especially important agricultural land not only will have an effect on local food security, as row crops are food crops, but will significantly affect existing flood buffering, wildlife habitat, and water infiltration. The environmental analysis of the no Project alternative should have characterize the positive attributes which will be lost, if developed as described. Removing agricultural land removes the natural climate change attenuator that soils can serve also affecting the City of Stockton's ability to reduce carbon dioxide levels in the atmosphere through carbon sequestration.

Air Quality Mitigation Measure 3.3-1

The measures proposed relating to the San Joaquin Valley Air Pollution Control District Rule 9510 should have included more than just the offsite mitigation strategies proposed. The stated purposes of Rule 9510⁹ include:

- Fulfill the District's emission reduction commitments in the PM10 and Ozone Attainment Plans.
- Achieve emission reductions from the construction and use of development projects through design features and on-site measures.
- Provide a mechanism for reducing emissions from the construction of and use of development projects through off-site measures.

No onsite operational measures were included to reduce emissions relating to the Project's proposed operation that is expected to generate a minimum of 22,633 daily vehicle trips, including 5,552 daily heavy-duty truck trips, along local roadways, except for some onsite mitigations of some construction activities. Onsite measures such as requiring on-site equipment, such as forklifts and yard trucks, to be electric, requiring all heavy-duty vehicles entering or operated on the project site to be zero emission beginning in 2030, constructing electric truck charging stations and electric plugs for electric transport refrigeration units are reasonable on-site requirements that should have been proposed in the DEIR. Without these onsite measures, the Project will add to the residents of Stockton already high pollutant burden.

G-7

The only mention of zero emission vehicles in the DEIR was that some employees may use electric vehicles. Anti-idling measures were not included nor were any vegetative barriers planned as mentioned previously. Furthermore, the emissions may have been underestimated because it is likely that trip lengths will be greater than 10 miles relating to other nearby logistical centers in the Bay Area or beyond and the proposed rail connections. In our NOP/IS comment letter we identified problems with previous emission modeling performed by the City of Stockton's consultant and specifically

⁹ <https://www.valleyair.org/rules/currentrules/r9510-a.pdf>

requested that best practices put forth by the California Air Resources Board be used for emission modelling:

Again, evaluating impacts is challenging for a project that is not well defined. Recently, the City of Stockton used CalEEMod fleet mix defaults to estimate a project's mobile source air pollutant emissions and was notified that the mileage used required revisions. When performing air emission analyses and traffic impact studies a reasonable estimate of heavy-duty truck trips commensurate with the proposed project's size and location is necessary. Please be very clear and concise when disclosing the parameters used during emissions and traffic analyses.

The characterization of the Project's operational mobile source air emissions does not include analyses with supporting evidence that assumptions made will be protective of public health and the environment.

G-7
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The City of Stockton did not include a maximum vehicle mile traveled for the Project to cap emissions. The DEIR did not describe how the process between the City of Stockton and the San Joaquin Valley Air Pollution Control District would be transparent while offsite mitigation strategies proposed on a project-by-project basis are reviewed and approved.

The proposed mitigation measures include a piecemeal analysis by considering each phase of development separately. Cumulative impacts occur as each "individual project" is developed. Mitigation of these individual projects will only be implemented if the pollutant threshold for an individual project is exceeded. This piecemeal method of impact analysis neglects cumulative air quality impacts associated with the full development that will occur if the existing DEIR is not significantly updated with further mitigation measures and recirculated for review.

Air Quality Construction Phase

Mitigation Measure 3.3-3, 3.3-4, 3.3-5

These mitigation measures relate primarily to dust and soil erosion/tracking controls and paving but does not address the heavy diesel equipment that will be used onsite and offsite to transport soil related to site flood mitigation grading activities and this heavy diesel equipment will be generating toxic air pollutants.

G-8

Air quality impacts are not adequately characterized to disclose potential effects or to prevent or minimize significant, avoidable damage to the environment.

Cultural and Tribal Resources

Mitigation Measure 3.5-1

The mitigation proposes that a qualified archaeologist shall conduct pre-construction worker cultural resource sensitivity training. The Northern Valley Yokuts representative should be present during this training and records maintained for all construction workers in attendance. This training should be offered periodically throughout the construction process as onsite construction workers change.

G-9

Mitigation Measure 3.5-2

The mitigation measure states only that a Native American monitor may be required if the archaeologist determines that Native American resources are identified. The Northern Valley Yokuts Tribal representative requested that in accordance with their policies that a tribal monitor should be present for all ground disturbing activities. Having a Native American monitor present when Native American

G-10

resources have been identified should not be optional, but should be required, and paid for by the Project proponents.

G-10
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Mitigation Measure 3.5-3

The mitigation measure proposes two separate processes involving the San Joaquin County Coroner. One places the San Joaquin County Coroner as the responsible party to contact the Native American Heritage Commission to identify a descendant. If no descendant is identified, the San Joaquin County Coroner may make a recommendation to the landowner or the person responsible for the excavation work to treat or dispose of the human remains and any associated grave goods without further Native American consultation.

The San Joaquin Coroner should be informed to determine that no further investigation of the cause of death is required. Once the Coroner has determined that there is no need for investigating the cause of death, the Native American monitor or the proper descendant of the deceased individual should propose proper reburial either onsite or an alternative location preferred by the Native American tribal representative in consultation with the Native American Heritage Commission.

G-11

The City of Stockton or its authorized representative should not be allowed to reject the wishes of a descendant, or the Native American Heritage Commission measures be allowed to be rejected by the landowner, and those entities make the decision of reburial location on their own. Everyone must work together to come upon a mutually agreeable solution and communication should begin in advance of the construction process and on-going, so the City of Stockton, landowner, or Project proponent is not left with an “urgent” situation that occurs due to the lack of advanced communication and planning.

A Native American monitor, descendant, and an archaeology if recommended by the Native American monitor should oversee reburial in a mutual agreeable location that is not subject to further subsurface disturbance. The Project is located on unceded Northern Valley Yokuts lands.

Geology and Soils Mitigation Measure 3.6-2

The mitigation calls for a qualified paleontologist to evaluate any paleontological resources found during grading and construction activities. However, this mitigation fails to properly conduct pre-construction worker paleontological resource sensitivity training. This training should be required and training documents available for mitigation monitoring.

G-12

Greenhouse Gases, Climate Change and Energy Mitigation Measure 3.7-1

The measures proposed to mitigate the greenhouse gases that will be generated are essentially the same as for air quality impacts and treats the Project in a piecemeal way ignoring cumulative impacts. Additionally, by treating the Project as individual projects it is more likely that these individual projects that will not exceed thresholds to require mitigation. Implementation of the Project as discussed in the DEIR will have a significant impact on goals set forth in the City of Stockton Climate Action Plan relating to proposed truck and rail transport associated with the 6 million plus square feet of industrial warehousing.

There were no mitigation measures proposed to reduce energy usage such as energy efficient lighting, use of other energy efficient equipment that are in use in a typical warehousing/commercial/industrial settings, installation of solar photovoltaic systems to equal the Project’s energy needs, using electric on-site equipment warehousing equipment such as forklifts and yard trucks, and constructing electric truck charging and plug in stations suitable for heavy duty trucks and refrigeration units to reduce idling exhaust emissions.

G-13

This is a speculative project that will significantly impact environmental resources. Additional greenhouse gas, climate change and energy mitigations are necessary so that Stockton residents do not bear solely the environmental burdens associated with the proposed Project.

G-13
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The vehicle miles travelled that the proposed Project(s) would generate was not disclosed. We specifically requested this information in our NOP/IS comment letter.

By July 1, 2020, public agencies evaluating the impact of development projects are required to use vehicle miles traveled (VMT) to evaluate transportation impacts. This change removes the focus on traffic at intersections and roadways immediately around project sites. Instead, the focus will be on how new development projects may influence the overall amount of automobile use.¹⁰

Hydrology and Water Quality

The DEIR deemed Impact 3.9-2 as less than significant when in fact the construction of the proposed Project and the paving over of 350 acres has the potential to interfere substantially with groundwater recharge associated with the Project area and current land use such that the Project may impede sustainable groundwater management of the basin. The DEIR identified the Subbasin incorrectly as the Eastern San Joaquin River Groundwater Subbasin when the name of the Subbasin in which the Project is located is the Eastern San Joaquin Groundwater Subbasin. The Subbasin is critically overdrafted and the location of the current agricultural fields presents an opportunity to use flood flows to recharge our overdrafted aquifer and provide downstream flood protection. Lands adjacent to natural waterways are particularly good for cost effective groundwater recharge projects.

Furthermore, the DEIR deemed Impact 3.9-3 relating to drainage pattern changes due to the addition of impervious surfaces as less than significant without calculations estimating runoff under climate change scenarios with infrequent atmospheric river rainfall events causing substantial surface runoff, flooding, or surface runoff of polluted stormwater. Climate changes relating to global warming must be carefully considered especially relating to changes to precipitation patterns. Paved land has much higher runoff coefficients, as compared to the existing agricultural land use which has been shown to attenuate runoff and reduce flood risks.

G-14

In fact, an additional General Plan Amendment and Rezoning of two areas will be necessary for the proposed Project due to limitations caused by the floodway along French Camp Slough. This floodway is a natural floodplain and a nexus facilitating the flow of floodwater from the waterway to adjacent lands lessening the flood risk to downstream residential areas.

Additional open space mitigation is needed to provide more floodway room for the North Fork of Little John's Creek along the southern boundary of the proposed Project.

Mitigation Measure 3.9.2 requires that prior to issuance of grading permits, the applicant and/or future Project proponent must submit a site-specific Project Stormwater Quality Control Plan to specify BMPs the Project will use to comply with State water quality regulations including those related to City of Stockton's Stormwater Management Plan. French Camp Slough joins the San Joaquin River in Stockton. The San Joaquin River is an impaired waterway and subject to regular hazardous algal blooms that are associated with heavy pollutant loading. The DEIR failed to fully disclose how the planned construction and operation of the 13 projects would result in a coordinated site plan to ensure that site runoff does not further impact the quality of water in our streams and rivers.

¹⁰ <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-02-26-transmittal-and-draft-vmt-focused-tisg.pdf>

Mitigation Measure 3.9-3 requires that prior to issuance of grading permits, the applicant shall obtain the local National Flood Insurance Program administrating community's approval and a CLOMR-based on fill followed by a Map update request. The DEIR stated that most of the Project site is located within the 100-Year designated FEMA Flood Zone and portions of the Project site adjacent to the French Camp Slough are designated within the Regulatory Floodway. Development within Regulatory Floodways are prohibited. The Project site is reportedly not within a 200-year flood zone. Senate Bill 5 requires all urban and urbanizing areas in the Sacramento and San Joaquin Valleys to achieve 200-year flood protection to approve development. The new law restricts approval of development after 2016 if "adequate progress" towards achieving this standard is not met. Urban and urbanizing areas protected by State-Federal project levees cannot use "adequate progress" as a condition to approve development after 2025. The City of Stockton just this year made a finding of adequate progress.

G-14
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The DEIR stated that according to Stockton Municipal Code Title 16.90, new developments may be permitted in areas "of potential flooding of three feet or less from a storm event that has a 1-in-200 chance of occurring in any given year, from sources other than local drainage, in urban or urbanizing areas..." An analysis by a local engineering firm included in the DEIR as a draft report concluded that flooding of 3 feet or less is expected and they recommended elevation of grade. Whether or not this analysis evaluated an ever-increasing intensity of rainfall resulting from climate change conditions is unknown at this time. Greenhouse gases are responsible for climate change which the proposed Project failed to mitigate.

Transportation and Circulation Mitigation Measure 3.13-1

The proposed Mitigation Measure 3.3-1 includes some possible measures related to the San Joaquin Valley Air Pollution Control District Rule 9410¹¹ such as "incentives for project employees to utilize alternative transportation options such as buses, bicycles or electric vehicles." Rule 9410 is required whenever an employer exceeds 100 regular employees at a worksite. The treatment in the DEIR of the Project as one entity for analysis of impacts would infer that in the future once any of the individual 13 projects combined reach the threshold of 100 employees, a Trip Reduction Plan will be required.

The San Joaquin Valley Air Pollution Control District is the regulatory agency that is involved in the implementation of transportation demand management (TDM) strategies related to transport to the workplace from home. This transportation effort is small compared to the truck trips related to the operation of the proposed Project and effects on regional roadways. Mitigation should be required for ongoing impacts to city roadways relating to increased heavy duty truck travel which significantly increases roadway maintenance frequency and costs, especially related to the proposed noise reducing pavement.

G-15

The same issues related to evaluating impacts for a project that is not well defined has made impossible an environmental analysis of local and regional transportation impacts. A railroad overpass proposed was not included in the mitigation measures.

The DEIR did not adequately describe existing and future transportation conditions relating to the vehicle mile traveled (VMT) associated with a logistical warehouse project of this size with access to rail and two highways. A detailed VMT analysis should have been conducted to determine if the Project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Without the Project there is no need for the construction of an overpass of the UPRR line.

¹¹ <https://www.valleyair.org/Programs/Rule9410TripReduction/>

The DEIR did not include a market analysis to investigate the need for up to 6,091,551 square feet of “employment-generating” industrial uses considering recently approved similar projects under development. There is active recruiting for existing warehouse jobs in our area which pay \$15-\$20/hour (\$600 to \$800/week) for full time work.

Governor Newsom recently issued Executive Order N 82-20 announced on October 7, 2020¹²:

“The science is clear that, in our existential fight against climate change, we must build on our historic efforts in energy and emissions and focus on our lands as well. California’s beautiful natural and working lands are an important tool to help slow and avert catastrophic climate change, and today’s executive order provides important new tools to take on this existential threat.”

Ultimately, the lead agency will examine each of the environmental issues listed in the checklist... and decide whether the proposed Project has the potential to have a significant impact and what if any mitigation is to be required. If approved, a development agreement that is transferrable will be established without any defined Project. Without a defined Project it is very difficult to determine impacts which will result from this warehousing development. No clear responsible party for proposed mitigation measures was identified in the DEIR. Mitigation measures to be performed have mixed responsibilities: Project proponent vs. landowner vs. the persons responsible for excavation work throughout the DEIR.

Land use is within the City of Stockton’s regulatory purview and while the City of Stockton is not expected to enforce CARB or SJVAPCD standards. The City of Stockton’s choice to approve projects with intense trucking and rail components means that the City of Stockton is adding new emission sources – like an attractive nuisance – which will increase the exposure of our residents to pollution. Mitigation is needed to reduce the impact of the Project and should be paid for by the developer not the residents of Stockton.

This Project is not vital for our recovery and the DEIR failed to provide sufficient details to determine the document’s adequacy to describe the environmental costs associated with the Project.

Once again, please add the Delta-Sierra Group to your CEQA notification list. The requirements for public noticing are changing next year and we would welcome a conversation to provide our input. If you have any questions or wish to discuss ways that the City of Stockton could improve public outreach, you may contact me by email at mebeth@outlook.com.

Sincerely,



Mary Elizabeth M.S., R.E.H.S.

Cc:

Sierra Club Mother Lode Chapter
Catholic Charities, Env. Justice Stockton Diocese
Restore the Delta
Central California Asthma Collaborative
Central Valley Air Quality Coalition
Little Manilla Rising
Environmental Justice for Water

Northern Valley Yokuts
NAHC
California Air Resources Board
Office of Attorney General – Department of Justice
California Department of Conservation
San Joaquin County Farm Bureau
Center for Biological Diversity

¹² <https://www.gov.ca.gov/2020/10/07/governor-newsom-launches-innovative-strategies-to-use-california-land-to-fight-climate-change-protect-biodiversity-and-boost-climate-resilience/>



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10.27.2020

Re: South Stockton Commerce Center Project Notice of Preparation and Initial Study

The Delta-Sierra Group has reviewed the Initial Study for the planned industrial development located off Airport Way immediately north of the confluence with French Camp Slough and the North Fork of Little John's Creek. French Camp Slough continues through the southwestern part of the five parcels encompassing 437.45 acres of agricultural lands.

Setting



The five parcels are summarized below to help with understanding the discussion regarding General Plan Zoning Maps vs General Plan designations and a zone change designation. The information was obtained from San Joaquin County Assessors and City of Stockton Interactive Zoning Map¹. There seems to be some discrepancies between the addresses cited in the Initial Study and City of

¹ <https://stocktonca.mapgeo.io/datasets/properties?abuttersDistance=100&latlng=37.973764%2C-121.284422&themes=%22%5B%5C%22zoning%5C%22%5D%22&zoom=12>

Stockton records (shown within parentheses). Additionally, there seems to be some discrepancies related to acreage sizes as illustrated below (shown within parentheses).

Parcel Table

APN	Address	Acres	Land value (\$ SJC	Current SJC assessed use	City Zone	City General Plan
77-110-040	6110 S. Airport Way	218.29	4,357,515 (221.54 ac)	Irrigated row crop	IL (8210 S. Airport)	Industrial
177-100-030	7070 S. Airport Way	76.03	1,660,790 (80.81)	Irrigated row crop	OS (1865 E French Camp Road	Open Space/ Agricultural
177-110-050	6122 S. Airport Way	3.27	65,305	Irrigated row crop	IL (8222 S AIRPORT WY)	Industrial
201-020-010	9091 S. State Route FR 99	75.07	1,550,424 (73.74 ac)	Irrigated row crop	IL	Industrial
177-050-090	8606 S. Airport Way	64.79	1,289,060	Irrigated row crop	RH (Residential, High Density)	Industrial

The conversion of this especially important agricultural land not only will have an effect on local food security, as row crops are food crops, but will significantly affect existing flood buffering, wildlife habitat, and water infiltration. The environmental analysis of the no project alternative must characterize the positive attributes which will be lost, if developed as described in the Initial Study. Removing agricultural land removes the natural climate change attenuator that soils can serve also affecting the City's ability to reduce carbon dioxide levels in the atmosphere through carbon sequestration.

The Draft Environmental Report must include a market analysis to investigate the need for up to 6,091,551 square feet of "employment-generating" industrial uses considering recently approved similar projects under development. This maximum square footage is based on the Floor Area Ratio (FAR) of 0.47 for industrial uses including general light industrial, industrial park, warehousing, mini-warehouse, high cube transitional and short-term storage warehouse, high-cube fulfillment center warehouse, high-cube parcel hub warehouse and light-cube cold storage warehouse. There is active recruiting for existing warehouse jobs in our area which pay \$15-\$20/hour (\$600 to \$800/week) for full time work.

Farmland of Statewide Importance (S)

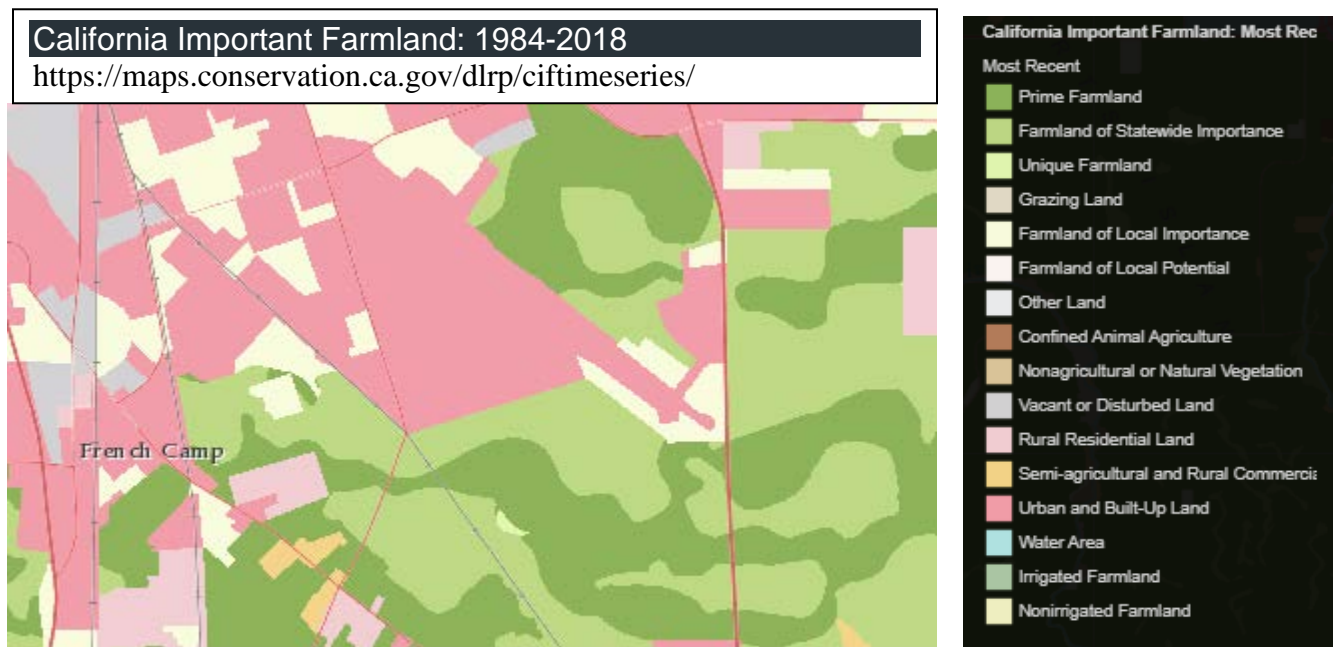
Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture.

Unique Farmland (U)

Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California.

Farmland of Local Importance (L)

Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. In some counties, Confined Animal Agriculture facilities are part of Farmland of Local Importance (PDF), but they are shown separately.



Climate changes relating to global warming must be carefully considered especially relating to changes to precipitation patterns. Paved land has much higher runoff coefficients, as compared to the existing agricultural land use which has been shown to attenuate runoff and reduce flood risks. The draft EIR must include a full flood hazard analysis to the residential area downstream of the proposed outfall to French Camp Slough.

Governor Newsom recently issued Executive Order N 82-20 announced on October 7, 2020²:

“The science is clear that, in our existential fight against climate change, we must build on our historic efforts in energy and emissions and focus on our lands as well. California’s beautiful natural and working lands are an important tool to help slow and avert catastrophic climate change, and today’s executive order provides important new tools to take on this existential threat.”

Agricultural land mitigation only ensures that some other agricultural land cannot be easily developed through a conservation easement. Agricultural land mitigation does not create new

² <https://www.gov.ca.gov/2020/10/07/governor-newsom-launches-innovative-strategies-to-use-california-land-to-fight-climate-change-protect-biodiversity-and-boost-climate-resilience/>

agricultural land. Once the land is developed it is unlikely ever to return to food production. The costs associated with the loss of food production land must be analyzed in the draft EIR

The conversion of this land to non-agricultural uses will create additional development pressures on the surrounding farmland and this must be evaluated in the draft EIR.

Air Quality

The conversion of irrigated lands to paved industrial uses accessing SR-99, I-5, the Stockton Metropolitan Airport and rail lines is expected to potentially impact air quality in South Stockton. When considering mitigation measures please refer to the CARB Technical Advisory Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways³.

(Adjust Font size) When assessing the Project's air pollution emissions from mobile sources use the emission factors found in CARB's latest EMFAC2017. These emission factors were updated from 2014 to provide the best available estimates of emission along with other site-specific variables which will be difficult to determine since the project is conceptual. Please include purple monitor data when evaluating local air quality conditions in the vicinity. Please provide descriptions of all zoned uses for the projects including general light industrial, industrial park, warehousing, mini-warehouse, high cube transitional and short-term storage warehouse, high-cube fulfillment center warehouse, high-cube parcel hub warehouse and light-cube cold storage warehouse. Any development agreements that would limit the amount of various zoned uses must be fully disclosed with complete descriptions of associated air emissions scenarios.

Ultimately, "the lead agency will examine each of the environmental issues listed in the checklist... and decide whether the proposed project has the potential to have a significant impact". This statement was found for each of the CEQA checklist type. The City of Stockton recently approved the conversion of agricultural land for a logistic center and made the finding that air quality will be improved.

If approved, a development agreement that is transferrable will be established without any defined project. Without a defined project it is very difficult to determine impacts which may result from development approved based on zoning. On previous similar projects there have been requests that a reasonable trip length for off-site heavy-heavy duty truck travel be used when analyzing emissions. The San Joaquin Valley AD will not be able to attain health based federal air quality standards without reductions in emissions from HHD which is the single largest source of NOX emissions in the San Joaquin Valley. Operational emissions for on-site sources must also be quantified.

EPA Air Quality Status⁴

pollutant	effec_rede	nonattain	class	part	population
1-Hour Ozone (1979)	- -	Yes	Extreme	W	685306
8-Hour Ozone (1997)	- -	Yes	Extreme	W	685306
8-Hour Ozone (2008)	- -	Yes	Extreme	W	685306
8-Hour Ozone (2015)	- -	Yes	Extreme	W	685306
Carbon Monoxide (1971)	6/1/1998		Moderate <= 12.7ppm	P	373545
PM-10 (1987)	12/12/2008		Serious	W	685306
PM-2.5 (1997)	- -	Yes	Serious	W	685306
PM-2.5 (2006)	- -	Yes	Serious	W	685306
PM-2.5 (2012)	- -	Yes	Moderate	W	685306

³ https://ww3.arb.ca.gov/ch/rd_technical_advisory_final.pdf

⁴ https://www3.epa.gov/airquality/greenbook/anayo_ca.html

Community air quality can be linked to vehicular emissions

The SJVAPCD 2018 PM 2.5 Plan identifies how reductions can be achieved, through implementation of the CARB Statewide Truck and Bus Regulation. The regulation will apply to all truck fleets operating within California, including any fleets that may be associated with the proposed project. As stated, the regulation will require conformance with the identified CARB near-zero truck NOx emission standard.

Again, evaluating impacts is challenging for a project that is not well defined. Recently, the City of Stockton used CalEEMod fleet mix defaults to estimate a project's mobile source air pollutant emissions and was notified that the mileage used required revisions. When performing air emission analyses and traffic impact studies a reasonable estimate of heavy-duty truck trips commensurate with the proposed project's size and location is necessary. Please be very clear and concise when disclosing the parameters used during emissions and traffic analyses.

Land use is within the City's regulatory purview and while the City is not expected to enforce CARB or SJVAPCD standards the City's choice to approve projects with intense trucking and rail components means that it is adding new sources – like an attractive nuisance – which will increase the exposure of our residents to pollution. Mitigation is needed to reduce the impact of the project and should be paid for by the developer not the residents of Stockton.

Transportation

The same issues with regard to evaluating impacts for a project that is not well defined will confound the environmental analysis particularly if it is difficult to ascertain the estimates used when performing the transportation analyses.

The EIR will describe existing and future transportation conditions and will analyze any potential conflicts with programs, plans, ordinances or policies addressing the circulation system. Potential impacts associated with site access, and on-site circulation will also be addressed in the EIR. A detailed vehicle mile traveled (VMT) analysis will be conducted to determine if the project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). The VMT analysis would be completed consistent with the Office of Planning and Research's (OPR's) Technical Advisory on Evaluating Transportation Impacts in CEQA.

If the City of Stockton uses a full build out for the general plan designations then it is likely that regardless of the VMT analysis which is to be undertaken, the City will find: Impact TRANS-1: Consistency with CEQA Guidelines Section 15064.3(b). Compared with existing land use designations, the project would generate less VMT and would therefore be consistent with CEQA Guidelines which is the language used in a similar logistic industrial center. The existing use of the property is the no project alternative and should be used to determine whether or not the project will have a significant impact. Additionally, please provide at your earliest convenience the VMT analysis which the City must be developing consistent with CEQA guidance:

By July 1, 2020, public agencies evaluating the impact of development projects are required to use vehicle miles traveled (VMT) to evaluate transportation impacts. This change removes the focus on traffic at intersections and roadways immediately around project sites. Instead,

the focus will be on how new development projects may influence the overall amount of automobile use.⁵

The NOP did not specify what City of Stockton guidance would be used but it is likely not to be the Standards of the City's Transportation Impact Guidelines used in the analysis of a similar project earlier this year.

Tribal Cultural Resources

Please incorporate a paid tribal representative to be present during land disturbance activities recognizing tribal sovereignty. Two local Tribes include the United Auburn Indian Community and the Northern Valley Yokuts which we are in communication with.

Greenhouse Gas Reduction Requirements

The City of Stockton Climate Action Plan adopted in 2014 included the following statement which is even more true now that our community suffers from the economic and emotional impacts relating to the Covid-19 pandemic:

The CAP would require substantial effort on the part of the entire Stockton community, including residents and business, schools, the San Joaquin Regional Transit District, other public entities, and the Stockton municipal government at a time when residents, businesses, and public agencies are struggling to pay current bills, keep businesses open, and provide basic services. This plan, if fully implemented, would result in a 20% reduction in per capita GHG emission from 2005 to 2020.

Many of the measures included in the CAP would result in long-term economic, environmental, health and other benefits for the City and its residents and businesses in addition to the expected GHG emission reductions.

Vegetation has been shown to be effective at reducing energy and air pollutant transport. Any vegetation associated with the project or subsequent development must be paid for and maintained by the applicant not the residents of Stockton.

Removing agricultural land removes the natural climate change attenuator that soils can serve and must be accounted when evaluating greenhouse gas emissions.

CEQA is clear that "uniformly applicable development policies or standards" need to be considered in the analysis of environmental effects and their significance and the need for additional mitigation measures. These additional measures are those required by the lead agency to protect public health and the environment that may be harmed as a result of the approval of the project. Relying on state guidance which was developed prior to the project and did not consider the project's impact is not sufficient when parts of our community is unequally burdened by negative environmental impacts. All zip codes are not created equal.

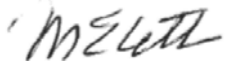
This Project is not vital for our recovery and we hope that the draft environmental impact analysis will be sufficiently detailed so that the residents of Stockton can determine the document's adequacy to describe the environmental costs associated with the project. Cost to Benefits ratio must be clearly described.

Please add the Delta-Sierra Group to your CEQA notification list. We became aware of the project through a CEQAnet link from a colleague. Please let us know if there is to be any public meeting

⁵ <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-02-26-transmittal-and-draft-vmt-focused-tisg.pdf>

regarding this project and when the draft environmental impact report becomes available to review. If you have any questions you may contact me by email mebeth@outlook.com.

Sincerely,

A handwritten signature in dark ink, appearing to read 'MEBETH' in a stylized, cursive script.

Mary Elizabeth M.S., R.E.H.S.

Cc: Mother Lode Chapter

Catholic Charities, Environmental Justice Stockton Diocese

Restore the Delta

Central California Asthma Collaborative

Central Valley Air Quality Coalition

Little Manilla Rising

Environmental Justice Coalition for Water

APPENDIX D

Hydrologic and Hydraulic Assessment

FILE MEMORANDUM

December 31, 2020

To: Ryan Van Groningen, Trevor Smith

Subject: **DRAFT** Proposed Project Conditions Hydrologic and Hydraulic Assessment

Project: South Stockton Commerce Center

From: KSN

Background & Floodplain Regulations

The Five Corners Group, LLC (Owner) has requested Kjeldsen, Sinnock, & Neudeck, Inc. (KSN) assist in assessing flood plain issues associated with a 450± acre property for future develop for industrial/warehousing use (South Stockton Commerce Center Project). The South Stockton Commerce Center Project is situated along the banks of French Camp Slough near the Stockton Metropolitan Airport, in Stockton, California. Figure 1 shows the project location and extents. It falls under two floodplain regulatory frameworks: the National Flood Insurance Program (NFIP); and since the project location is within the City of Stockton, a designated "Urban Area", it also must comply with the California Central Valley Flood Protection Act of 2008 (Urban Level of Flood Protection). The influence of these two regulatory structures is discussed further below.

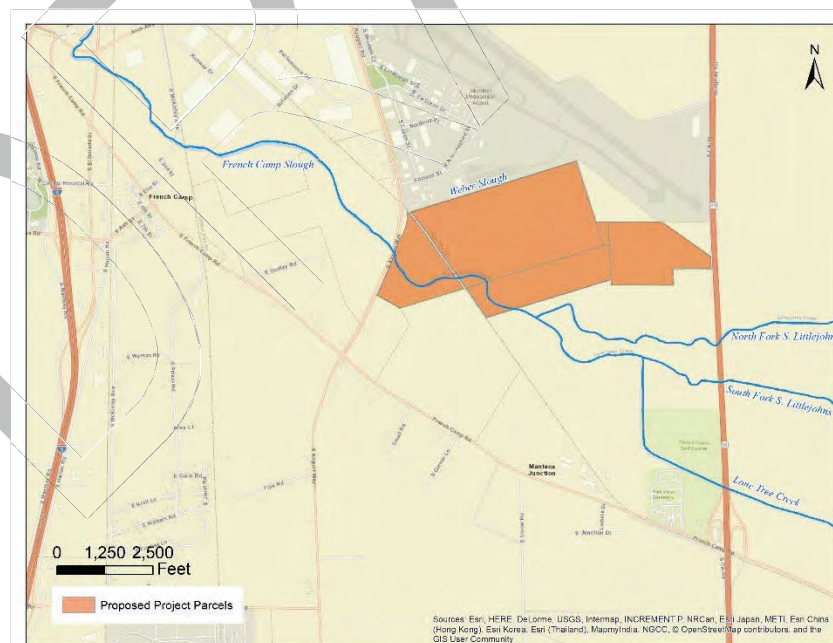


Figure 1 - South Stockton Commerce Center Project Location

National Flood Insurance Program

The NFIP is a federal program aimed at reducing the impacts of flooding on private and public structures. It does this primarily through two different mechanisms: flood insurance, and by requiring local communities to adopt floodplain ordinances which regulate the development of floodplains. The NFIP is administered by the Federal Emergency Management Agency (FEMA) at the national level, and by cities and counties at the local level. FEMA conducts periodic studies to identify and update maps of flood prone areas (flood zones). These maps, known as Flood Insurance Rate Maps (FIRMs) are used by the NFIP to identify areas where flood insurance is required for structures with federally backed mortgages, and where floodplain ordinance regulations must be applied. These flood prone areas are referred to as Special Flood Hazard Areas (SFHA) on the FEMA FIRMs. In order for structure owners to be able to purchase flood insurance, their communities (city or county) must adopt a minimum set of floodplain ordinances which regulate development within the FEMA identified floodplains.

A review of the FEMA FIRMs covering the South Stockton Commerce Center Project area was conducted to determine the potential FEMA floodplain regulatory impacts on the proposed project. The FIRMs which were reviewed are shown in Table 1 while Figure 2 shows this FIRM data overlain with the project footprint.

Table 1 - FEMA FIRM Maps Reviewed

Map Number	Effective Date
06077C0470F	October 16, 2009
06077C0490F	October 16, 2009
06077C0610F	October 16, 2009
06077C0630F	October 16, 2009

Figure 2 shows the National Flood Hazard Layer (NFHL) for the project site and it shows that the project site is located within several flood zones. The NFHL is the underlying data which is shown on the FEMA FIRMs. On these FIRMs, the Zone X designation is used by FEMA to indicate areas with a 0.2 percent annual chance of flooding (also known as the 500-year flood). The 1 percent annual chance of flooding (or 100-year flood) is shown with the Zone AO (Depth 1 Foot) area. Zone AO's are typically used to indicate shallow flooding of a given depth.

For the unshaded (or area with no designated zones), there are no special FEMA related restrictions on development. The Zone X would likewise poses no FEMA prohibitions for this project. However, the Zone AO is considered a Special Flood Hazard Area (SFHA) and would require that the development be elevated above the base flood elevation (BFE). The City of Stockton's Municipal Code states that in a Zone AO, the lowest finished floor be: "elevated above the highest adjacent grade to a height two (2) feet above the depth number specified in feet on the FIRM, or elevated at least four (4) feet above the highest adjacent grade if no depth number is specified." As there is a depth (1 foot) published for the applicable Zone AO for this project, the building footpads should be elevated three feet (1-foot depth plus 2 feet freeboard) above the highest adjacent grade to the building.

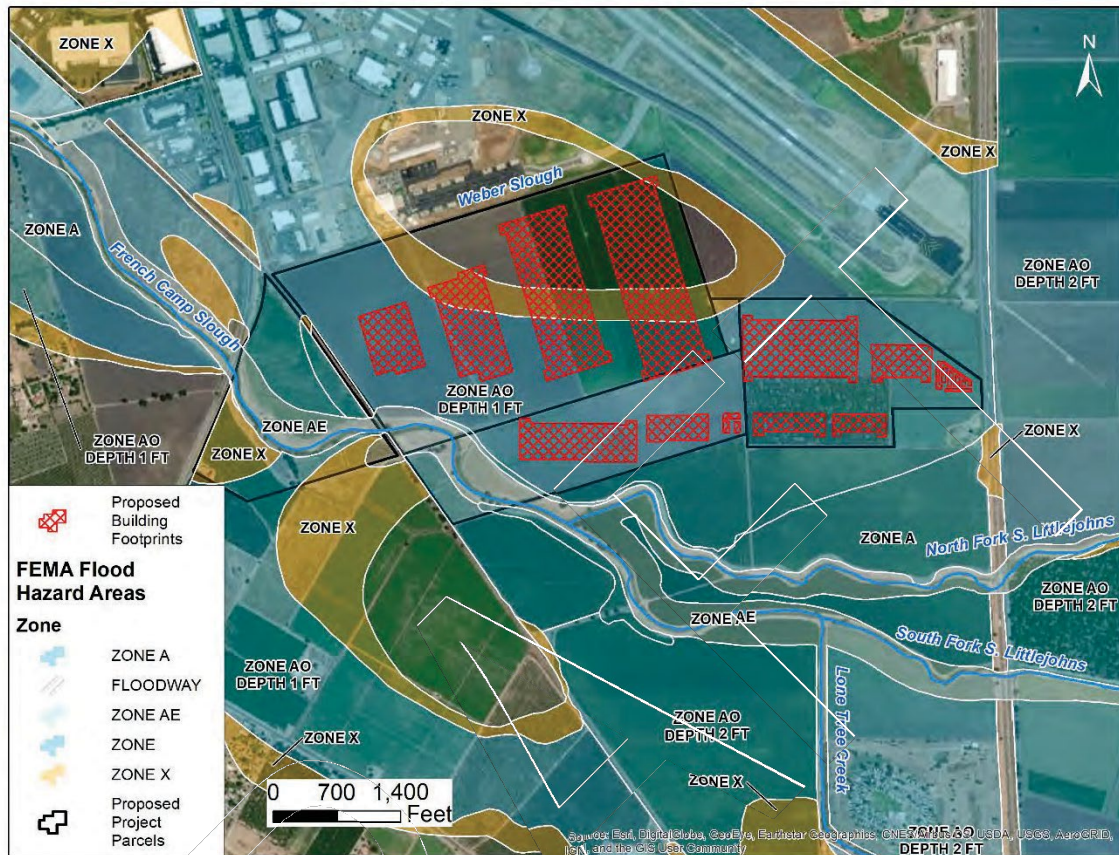


Figure 2 - NFHL & Project Site

The typical way to elevate larger developments is to build the development upon fill placed to bring the finished floor elevation to two feet above the BFE. In this project, a better route would be to revise the effective FEMA floodplain in this area to reflect the changes from improved flood control facilities (i.e. channel and detention basins). When using this approach, the typical method for obtaining FEMA approval is to file a Conditional Letter of Map Revision (CLOMR). This requires the local NFIP administrating community's approval before it can be submitted to FEMA for review and approval. The CLOMR provides the developer assurances that once the stated finished floor elevation is achieved, the structure will be removed from the SFHA. Once the project is constructed and 'as-built' information is provided to FEMA, a final Letter of Map Revision (LOMR) can be obtained through a similar process.

As Figure 2 indicates, a portion of the project site is located with an SFHA. Therefore, an analysis was conducted to determine potential impacts to the floodplain from placing fill to bring the finished floor elevation to three feet above highest adjacent grade. This analysis is discussed in detail below.

California Central Valley Flood Protection Act of 2008

The California Central Valley Flood Protection Act of 2008, also known as SB 5 adds additional flood risk considerations for development within urban or urbanizing areas in the California Central Valley. Stockton is considered under the law to be an urban area and thus falls under the purview of SB 5's

Urban Level of Flood Protection (ULOP) requirement. ULOP requires development within urban areas to meet certain standards related to a 200-year level of flood protection. The '200-year flood' is a flood that has a 0.5 percent chance of occurring in any given year.

In order to determine if the project site would be subject to ULOP regulations, the San Joaquin County Public Works 200-year Flood Map website¹ was reviewed for 200-year flood depths. According to Stockton Municipal Code Title 16.90, new developments may be permitted in areas "of potential flooding of three feet or less from a storm event that has a 1-in-200 chance of occurring in any given year, from sources other than local drainage, in urban or urbanizing areas..." Figure 3 shows the potential flooding from the San Joaquin County Public Works Webpage for the project area.

DRAFT

¹ <http://sjc-gis.maps.arcgis.com/apps/webappviewer/index.html?id=3b352a92c2c142ccbf07266fd69fe1fb>

South Stockton Commerce Center Potential 200yr Flood Depths

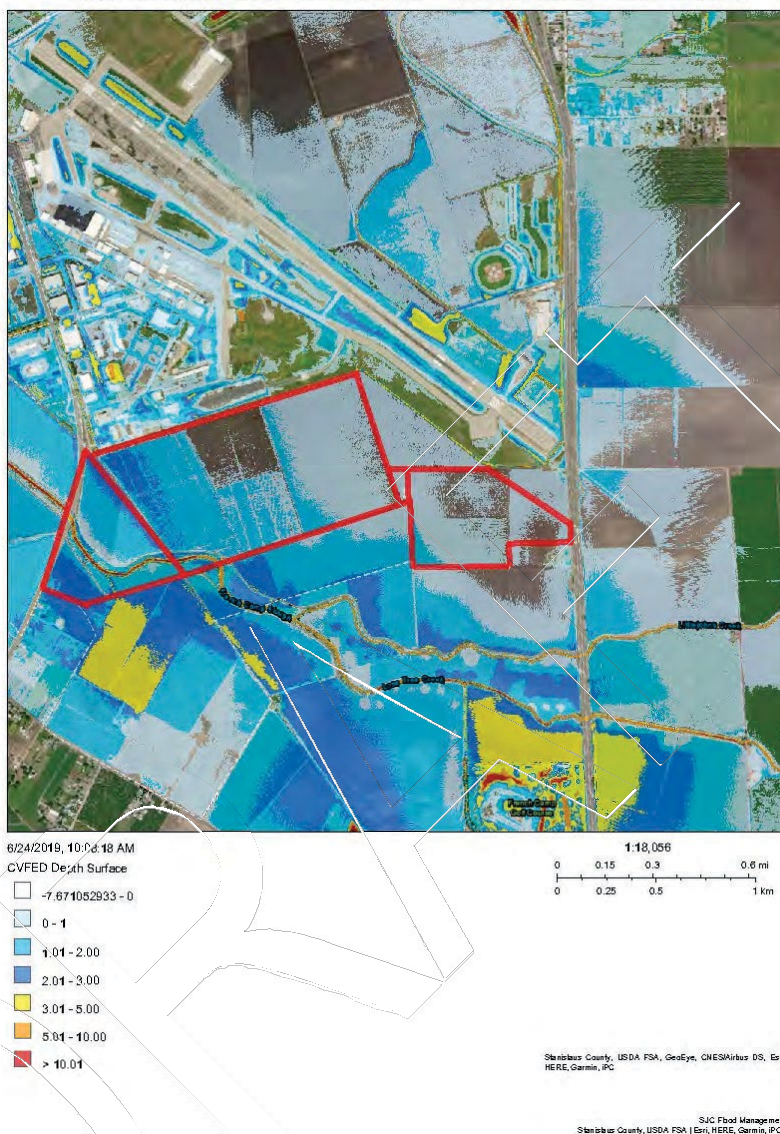


Figure 3 - Potential 200-year Flood Depths

As can be seen in Figure 3, there are no areas within the project area of three feet or more in potential flood depths and thus the project complies with SB 5. The City of Stockton will need to make an SB 5 compliance finding when issuing discretionary approvals for the project.

South Stockton Commerce Center Flood Assessment Analysis

Previous Studies

A review of previous studies was performed to determine potential starting points for analyzing potential impacts to the floodplain. In total, three previous studies were found for this project area and are discussed in further detail below.

Federal Emergency Management Agency

In October 2016, FEMA updated its Flood Insurance Study (FIS) for San Joaquin County and Incorporated Areas which includes the South Stockton Commerce Center Project site. While the FIS reports on the methods and techniques used in its analyses of French Camp Slough, North Littlejohns Creek, South Fork North Littlejohns Creek, and Lone Tree Creek it does not state when the analyses were performed, the methodologies used, or who developed these models. While FIS's typically report this information, for older studies it is usually reported as not available as was found to be the case for this area. This typically means the actual hydrologic and hydraulic analyses are many years old if not decades old. Older studies do not necessarily correlate to inaccurate studies, it does however, limit the amount of data that may be leveraged for future studies.

California Department of Water Resources

In 2013, the California Department of Water Resources (DWR) completed the Central Valley Floodplain and Evaluation Program (CVFED). CVFED was developed to support the ULOP required from the Central Valley Flood Protection Act of 2008. The products from this program were:

- LiDAR for the California Central Valley
- 200-year flood hydrology for select streams and rivers
- 200-year flood hydraulic models for select streams and rivers
- 200-year floodplain maps for urban areas

The program was focused on analyzing the State Plan of Flood Control Levees. However for the purposes of the South Stockton Commerce Center Project, the major sources of flooding for the project area were all studied under the CVFED Program. The CVFED hydraulic models were acquired from DWR and an initial comparison of the peak CVFED flood flows for French Camp Slough indicates that they are relatively close to the published FEMA flow rates.

Tidewater Crossings Project California Environmental Quality Act

In 2006, a study was conducted for a potential development called Tidewater Crossing along French Camp Slough in conjunction with a CEQA process. This study's hydrologic and hydraulic analyses analyzed the Littlejohns Creek Watershed, the Lone Tree Creek Watershed, the Weber Slough Watershed, and the French Camp Slough Watershed. The analysis consisted of a detailed hydrologic and hydraulic analyses of both the pre- and post-project conditions. The proposed project has not been constructed. The data developed to prepare the study's report are unavailable at the time of the drafting of this memorandum, but the general findings of the report have proven helpful even if out of date.

The above-mentioned studies were reviewed with the intent of leveraging existing data for use in determining the flood impacts and flood control needs for the proposed project. While no previous study captured everything needed to analyze the impacts of the proposed development upon the floodplain at the project site, there are still useful data to be leveraged from each. The following sections detail the engineering study to analysis the flood control aspects of the proposed project.

Existing Conditions – Hydrologic & Hydraulic Assessment

Hydrologic Data

The hydrologic data used in establishing the existing conditions were obtained from DWR's updated CVFED model. Selected 100-year flood event peak discharges, in cubic feet per second (cfs) used are presented below:

Table 2 - Selected 100-year Peak Discharges

Flooding Source	Peak Discharge (cfs)
North Littlejohns Creek	462
North Fork South Littlejohns Creek	1,390
South Fork South Littlejohns Creek	2,092
Weber Slough	301
Walker Slough	1,570

Hydraulic Model Source

The CVFED HEC-RAS model obtained from DWR was used to model the existing conditions of the project location. This model covered the project area and was already converted to the latest version of HEC-RAS which allowed needed modifications for the modeling of both pre- and post-project conditions. A significant assumption made for this model is that all levees hold. Overtopping of the levees is permitted in the model, but no seepage, breaching, or eroding of the levees is simulated.

Modifications made

In order to accurately simulate the conditions present at the project location, KSN made two primary modifications to the CVFED HEC-RAS model received from DWR: the addition to the model of Weber Slough and the conversion of several areas modeled as flood storage areas to two-dimensional model areas.

Weber Slough Modifications

The first modification made to the CVFED HEC-RAS model was to add Weber Slough to the hydraulic model. The model as provided by DWR did not have Weber Slough as part of the hydraulic stream network; rather it was included in a storage area and the flows coming from and through Weber Slough were aggregated with shallow surface flows modeled by the storage areas. While the previous approach sufficed for the CVFED modeling goals, the proposed project would be changing hydraulic conditions within one of the storage areas and the methods used in the CVFED program to model the project area were not detailed enough to capture the changes proposed.

The Weber Slough channel was added into the model using bridge and culvert data collected by NorthStar Engineering. Cross Section data was obtained from the CVFED LiDAR. A review of the LiDAR was performed to ensure that the Weber Slough Channel was sufficiently captured during the LiDAR acquisition. Once the channel, cross sections, and structures were added to the hydraulic model, channel 'n' values were determined through a combination of aerial imagery, survey photographs, and publicly available data. The upstream flow conditions were obtained from the DWR hydraulic model. The HEC-RAS model had hydrograph data which described the storm water discharges into Weber Slough from the outfalls located near the National Guard Armory and the flows upstream of that location. The flows from the outfall pipes were introduced into Weber Slough via a lateral inflow boundary condition at the appropriate location, while the remaining flow was input at the

upstream limit of the Weber Slough channel (at the downstream face of Weber Slough's crossing of California State Highway 99).

Storage Area Conversions

The second modification made to the DWR HEC-RAS model was to convert two storage areas to four two-dimensional flow domains (see Table 3). While the project is physically located only in one of the storage areas, the other storage area was included in the conversion to ensure that areas adjacent to the project location were modeled in sufficient detail to accurately determine the project impacts (or lack thereof) both on and off the project site. The north-south dividing line between the areas was Weber Slough. The east-west dividing line is Airport Way. The areas can be seen in Figure 6.

Table 3 - Storage Areas Converted to Two-dimensional Areas (Existing Conditions)

Storage Area Name	2D Area Name	Area (square miles)	Nominal Cell Size (feet by feet)	Total Cells
3FCS30	3FCS30 North	0.73	50 x 50	7,959
	3FCS30 South	0.14	25 x 25	6,635
3FCS40	3FCS40 North	0.90	25 x 25	107,119
	3FCS40 South	2.27	25 x 25	44,457

Topographic Data Source

KSN acquired LiDAR data for the project area from the California Department of Water Resources. The bare earth LiDAR data was used to develop an existing conditions terrain surface for Weber Slough and the newly added two-dimensional flow areas. The specific LiDAR tiles used are presented below in Table 4.

Table 4 - CVFED Bare Earth LiDAR Tiles Used

0786n0374e5k	0786n0376e5k	0786n0378e5k	0786n0380e5k
0784n0374e5k	0784n0376e5k	0784n0378e5k	0784n0380e5k
0782n0374e5k	0782n0376e5k	0782n0378e5k	0782n0380e5k

The LiDAR data was provided by DWR in several formats. The bare earth digital elevation model (DEM) was input into HEC-RAS's RAS Mapper processing software to develop a digital surface model usable by HEC-RAS. The cell sizes used in the digital surface model were five feet by five feet. The results of the hydraulic modeling to use to set "existing conditions" can be found in the Figure 4.

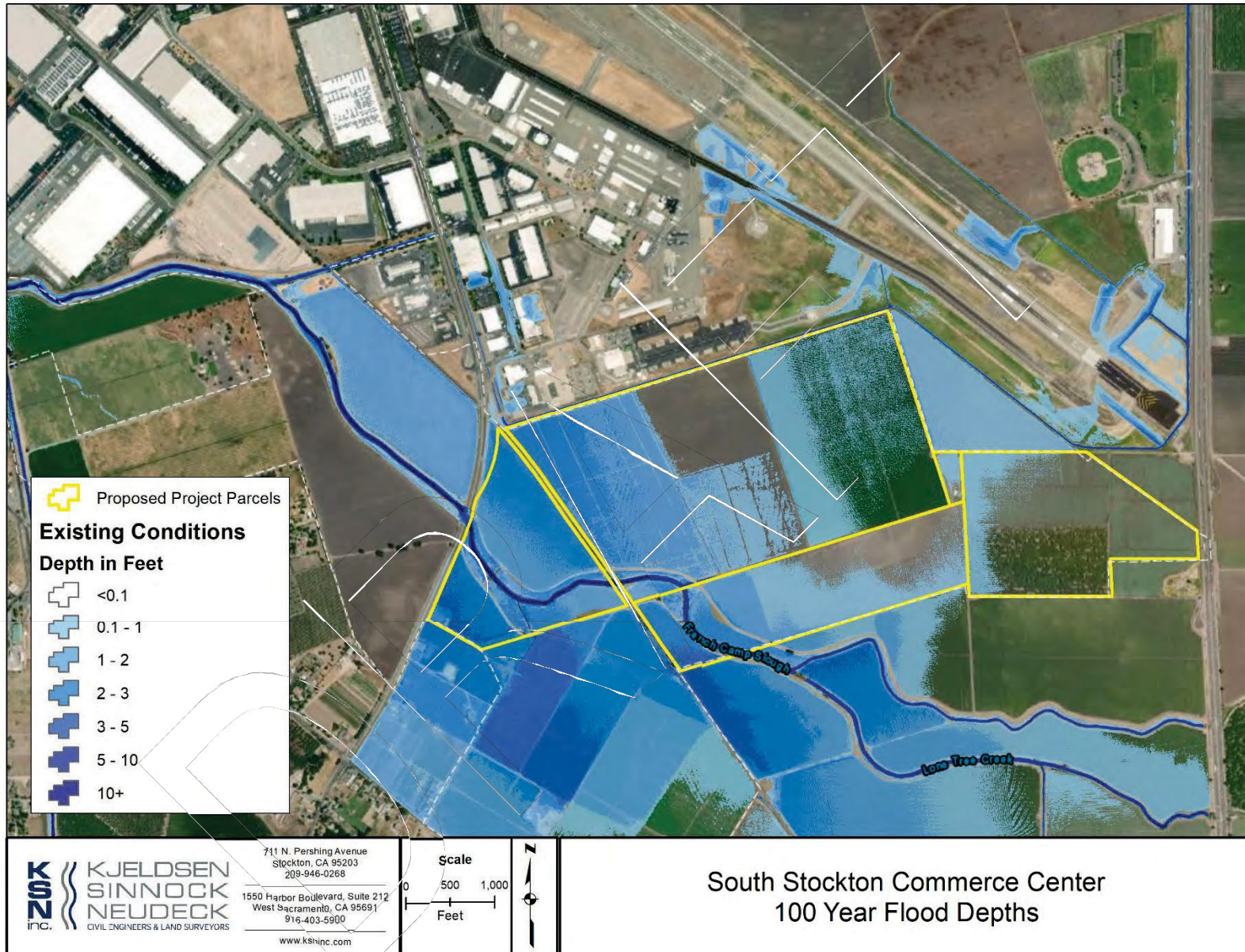


Figure 4 - Existing Conditions 100-year Flood Depths

Proposed Conditions – Description

Proposed Site Configuration

KSN received a post project site plan from NorthStar Engineering on October 21, 2020. This plan information included rough grading surfaces, proposed building layouts, flood control basin locations and flood control channel alignments. KSN used these proposed terrain modifications to build the proposed conditions model. A significant assumption made for this model is that all levees hold. Overtopping of the levees is permitted in the model, but no seepage, breaching, or eroding of the levees is simulated.

Flood Control Channel

In order to route floodwaters away from the proposed buildings and other infrastructure, a flood control channel was placed along the northern edge of the project. The total length is approximately 5,500 feet. Its layout is presented in Figure 7. The flood control channel slope is approximately 0.02%. The flood channel collects water leaving Weber Slough towards the south and routes it towards the west eventually discharging the Weber Slough overflow into the northern flood control basin (described below). The flood control channel widens at the northern edge of the project. A typical cross section is shown below in Figure 5.

Flood Control Basins

A pair of flood control basins are proposed as part of the project's flood control system. They are depicted in Figure 7 below. The northern flood control basin is fed directly by the flood control channel and is approximately ± 450 acre-feet (ac-ft) in capacity. The southern flood control basin (± 132 ac-ft capacity) is filled primarily by overflows from the French Camp Slough levee system to the south with some minor collection of Weber Slough overflows between Airport Way and the Union Pacific Railroad.

The Union Pacific Railroad provides a hydraulic break between the project areas contributing to the northern flood control basin and the southern flood control basin as it does not overtop during a 100-year flood event. The flood control basins are drained via pump systems which are not included in this analysis. The assumption is that the draining of both flood control basins will occur post flood event.

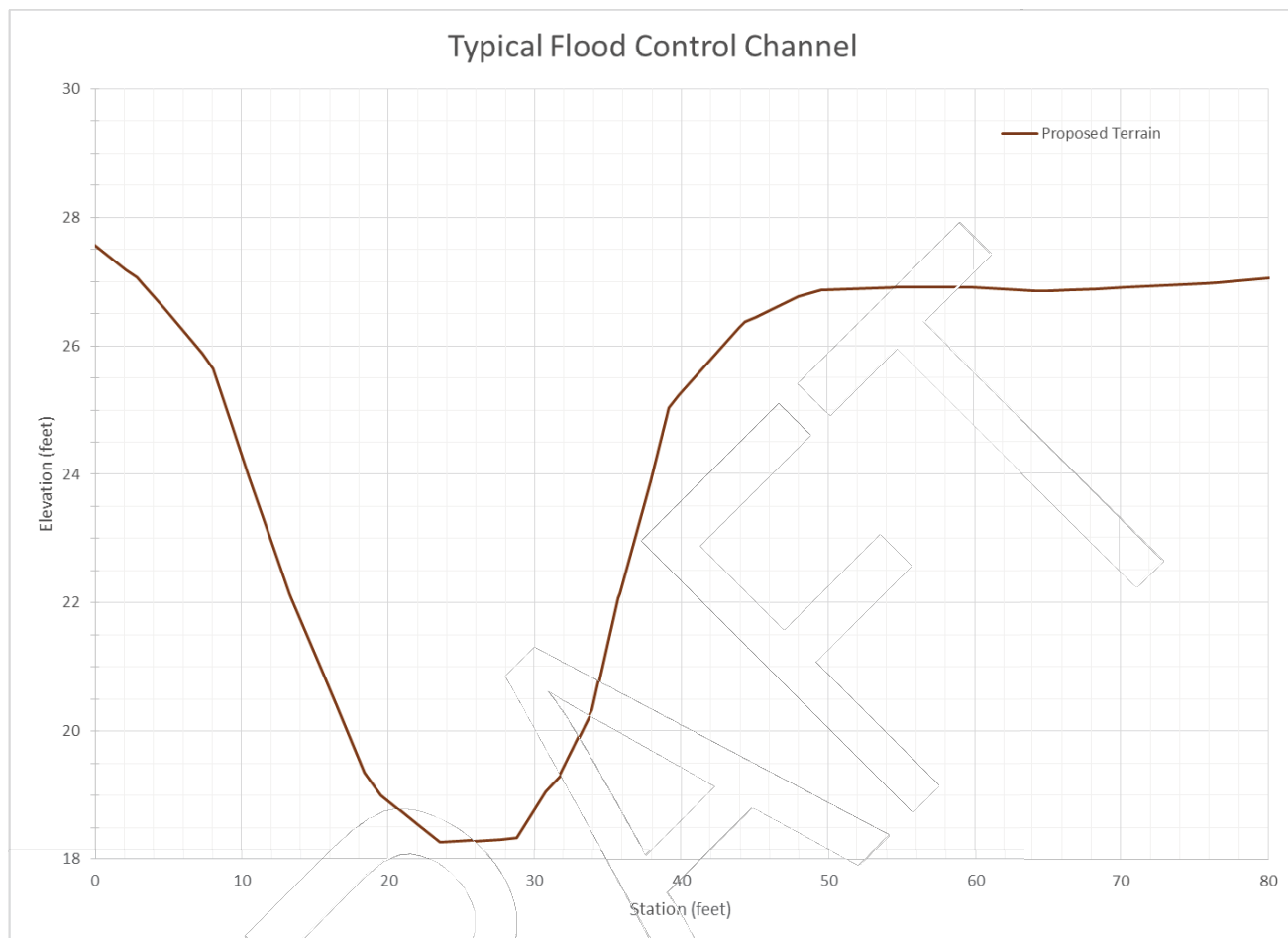


Figure 5 - Typical Proposed Flood Control Channel (Downstream)

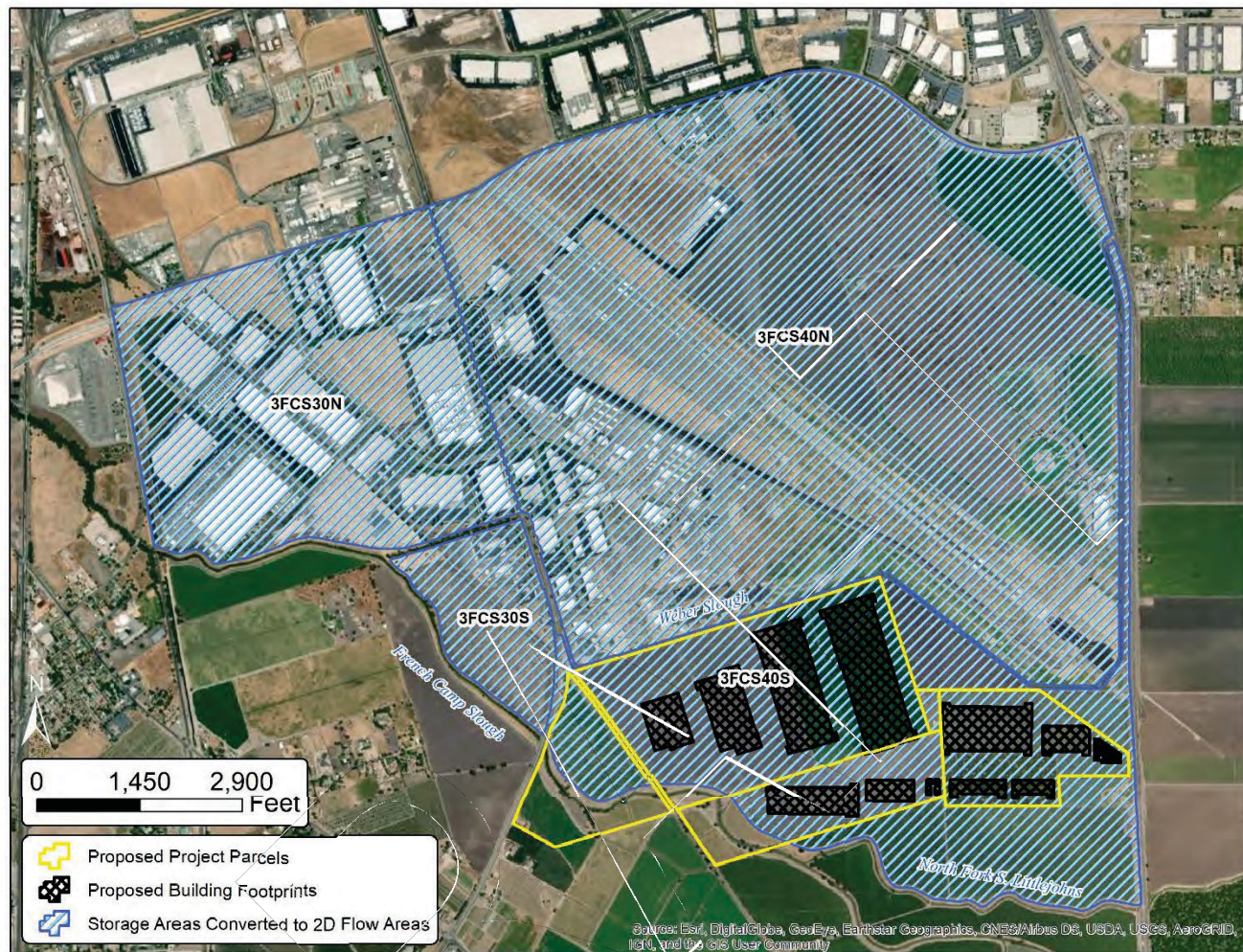


Figure 6 - Storage areas converted to 2d flow areas

Proposed Conditions – Hydrologic & Hydraulic Assessment

Hydrologic data

The proposed conditions do not involve any changes to the hydrologic boundary conditions of the hydraulic model. Therefore, no changes were made to the flow coming into the model or the downstream boundary conditions.

Flood Control Basins

Both the north and south proposed flood control basins were entered into the Existing Conditions terrain to account for the increased floodplain storage. The north basin was analyzed under two different assumptions: a) empty at the beginning of the flood event and b) with 10-year project site runoff in the north basin. The second assumption (with on-site stormwater) is unlikely to occur but was analyzed to determine the robustness of the flood control system. NorthStar Engineering calculated the 10-year post-project storm runoff to be 126 ac-ft. The inclusion of the 10-year event's project site runoff in the north flood control basin is a conservative assumption as a 10-year storm event followed very quickly by a 100-year storm event is not likely. The joint-probability analyses to determine the actual recurrence interval of this assumption is beyond the scope of this study.

Due to the size of the flood control basins, the nominal cell sizes were not reduced as the grid cells provided adequate resolution to simulate the capacity and drainage characteristics of the basins.

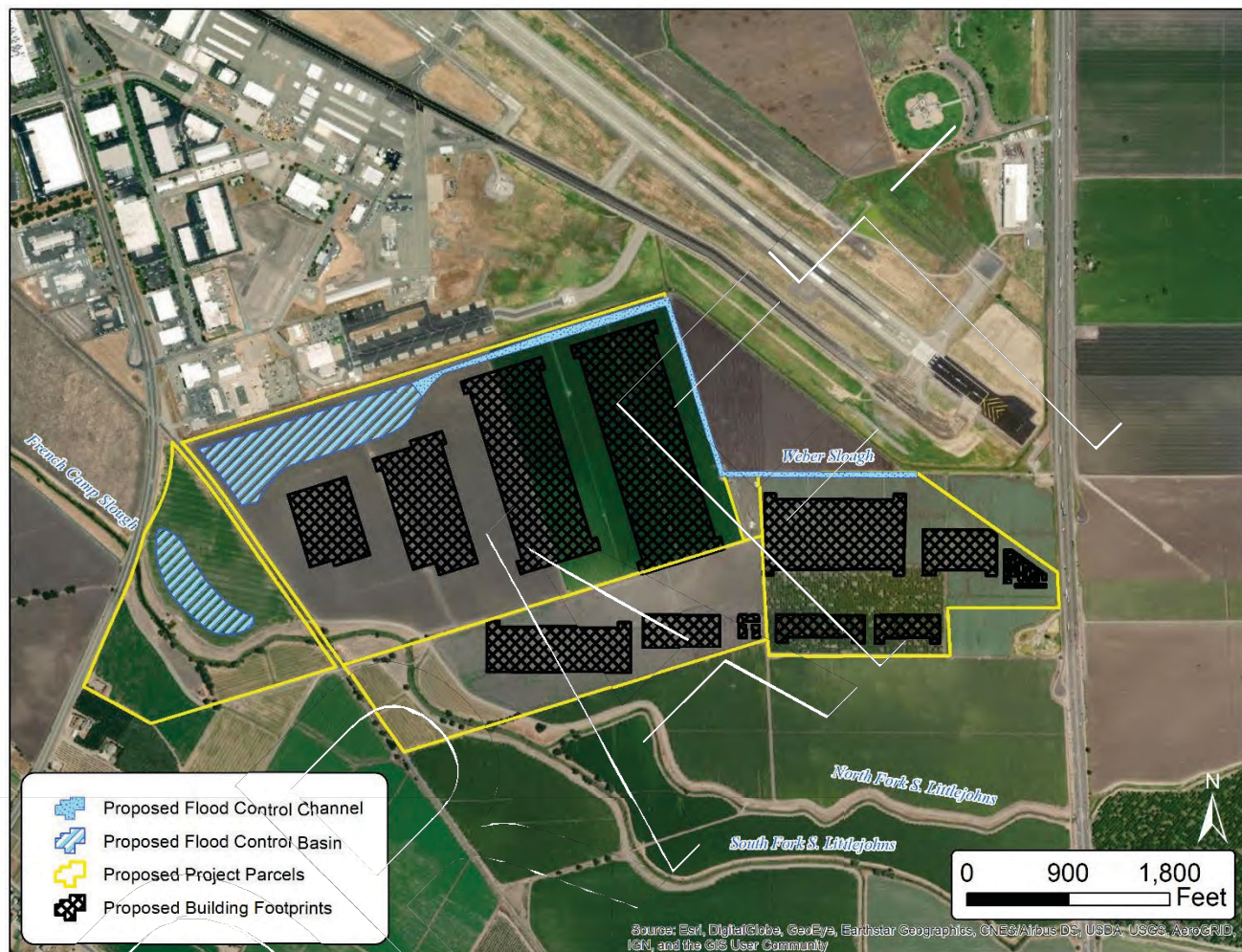


Figure 7 - Proposed Conditions

Flood control channel

The proposed South Stockton Commerce Center Flood Control Channel was modeled using HEC-RAS 2D methods. The geometry of the channel was entered into the existing conditions digital surface model and cell alignments modified to ensure that the channel was sufficiently captured in the two-dimensional mesh. Cell sizes in the vicinity of the flood control channel were reduced from the nominal cell size of 25 feet by 25 feet to approximately 10 feet by 10 feet to ensure adequate representation of the channel topography and adjacent grade. During the peak of the event, the flood control channels were conveying approximately 63 cfs to the north flood control basin. A total volume of 50.25 ac-ft was conveyed to the north flood control basin through the flood control channel during the simulation (See Figure 9).

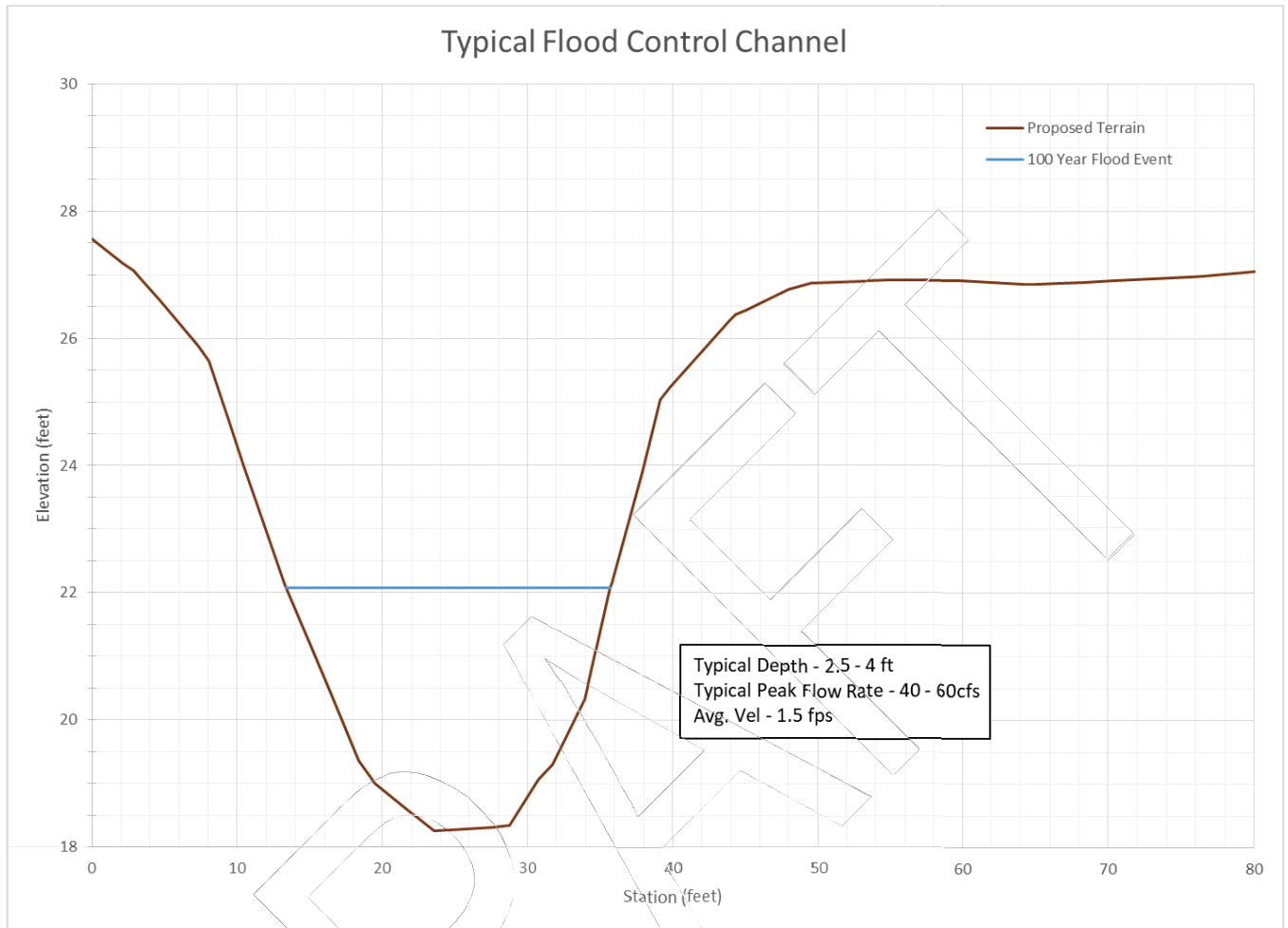


Figure 8 - Typical Flood Control Channel 100-year Results

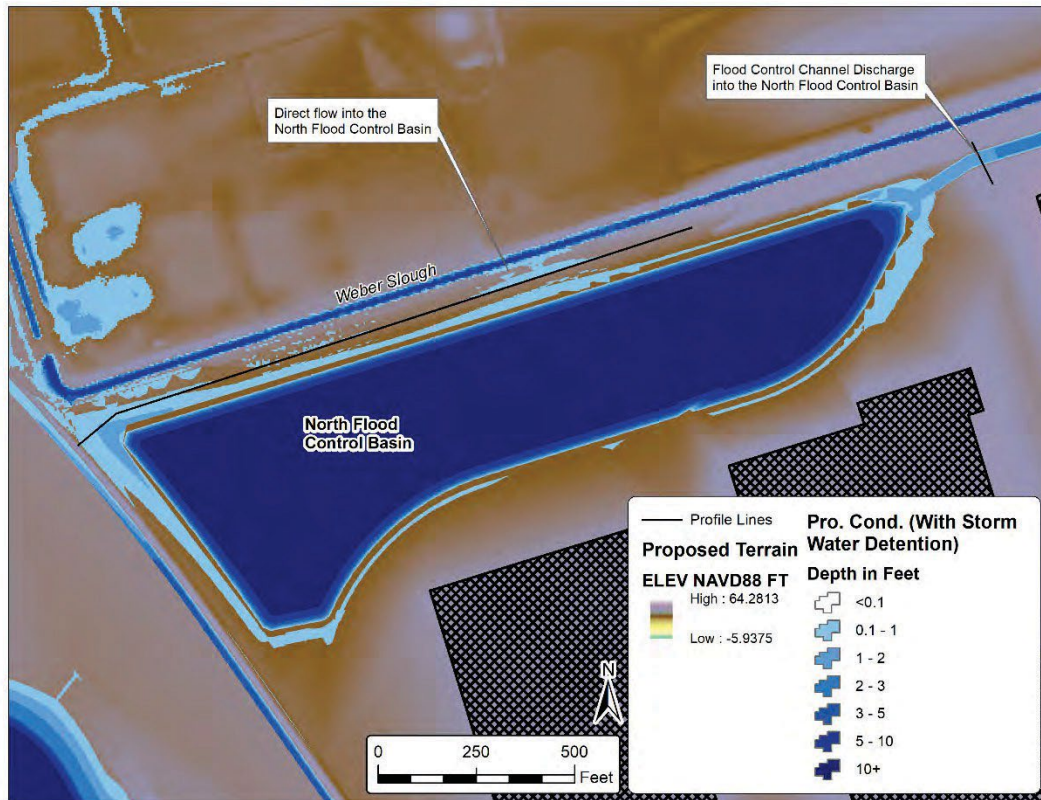


Figure 9 - North Flood Control Basin 100-year Results (with stormwater storage)

The results from the flood control channel were inspected to determine the appropriate sizing. Typical cross sections were analyzed with the peak water surface elevations and flow rates.

North Flood Control Basin

The majority of the floodwaters entering the north flood control basin are directly flowing from Weber Slough. Adjacent to the north basin's north western side, the Weber Slough channel capacity is insufficient to convey the 100-year flood within its banks. The lower bank is to the south and thus overflows occur on that bank. Approximately 138.1 ac-ft originating directly from Weber Slough in this area are intercepted by the north flood control basin and stored within the basin. At peak, approximately 87 cfs are flowing from Weber Slough in this area into the north flood control basin. The profile lines shown in Figure 9 are the lines across these flow rates and volumes are measured. Figure 10 shows the cross section of the north flood control basin for the maximum water surface elevation under the 100-year flood.

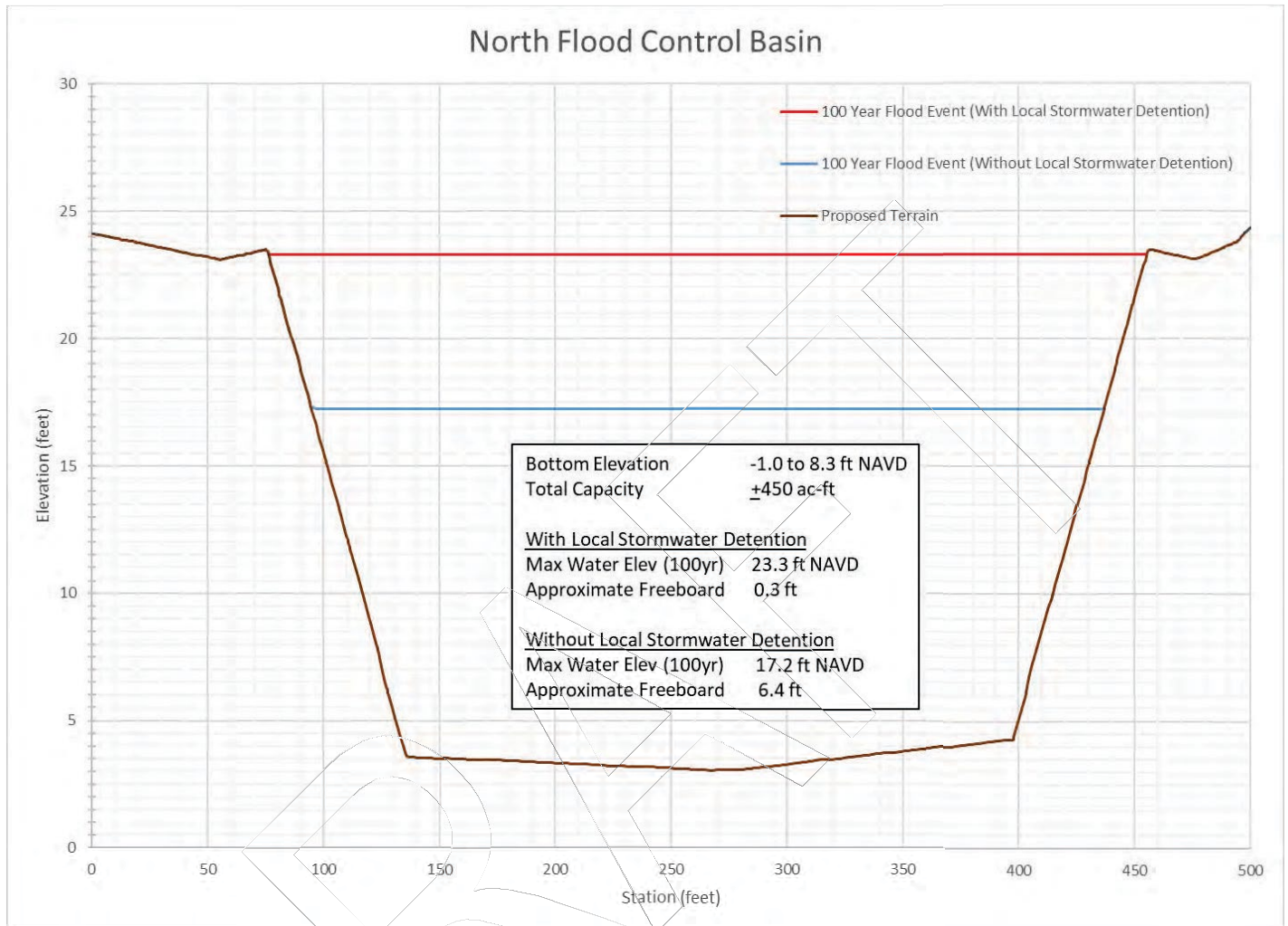


Figure 10 - North Flood Control Basin Maximum Water Surface Elevations

South Flood Control Basin

The majority of the floodwaters entering the south flood control basin originate from French Camp Slough. The basin was sized to offset lost storage from a proposed building pad opposite on the west side of the railroad bisecting the project. The proposed invert of the flood control basin is 6.0 ft NAVD. The proposed project roadway would be between the building pad and the proposed flood control basin. A typical cross section of the south flood control basin can be seen below in Figure 12. Figure 11 shows the maximum post project water surface depths around the south flood control basin.

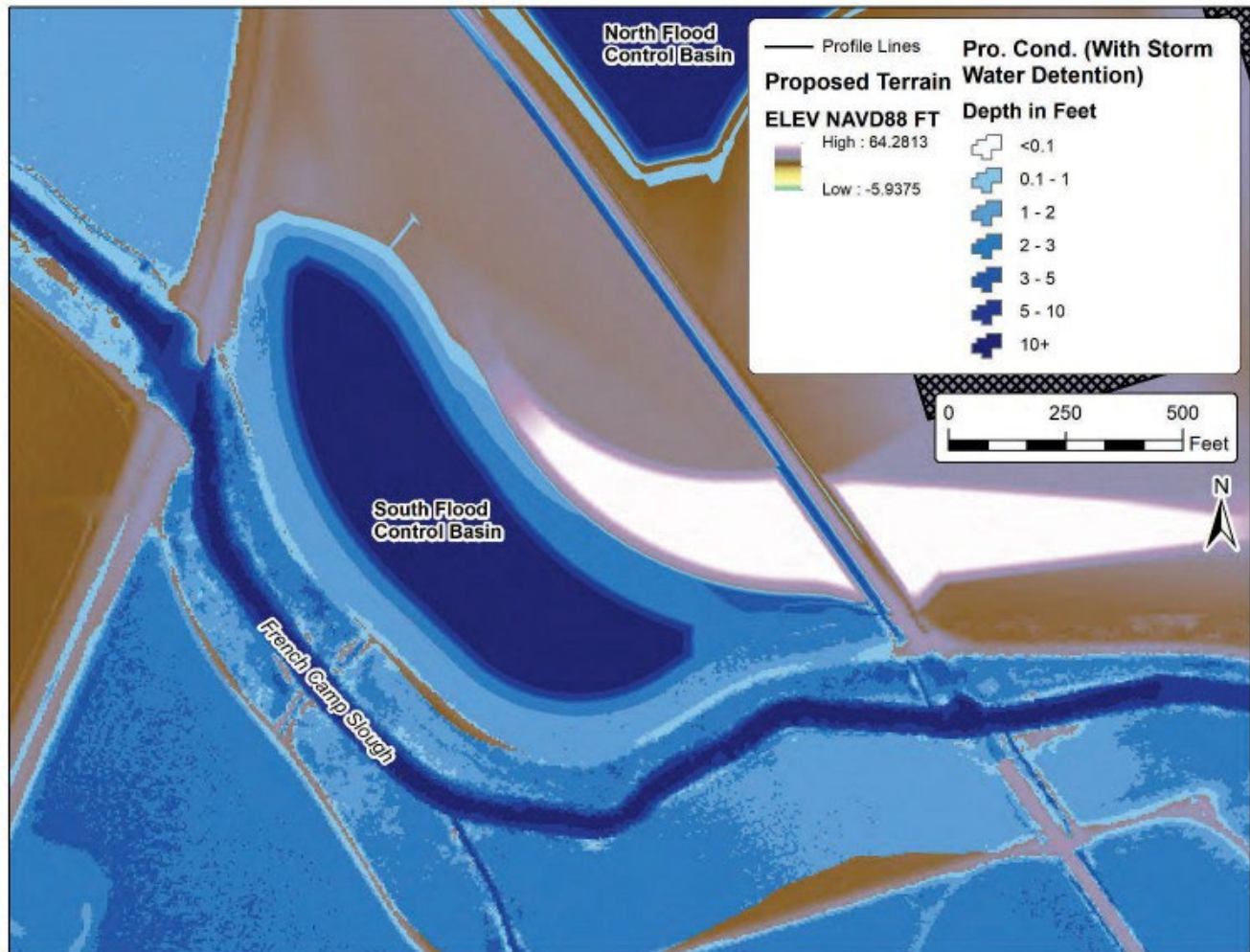


Figure 11 - South Flood Control Basin 100-year Results

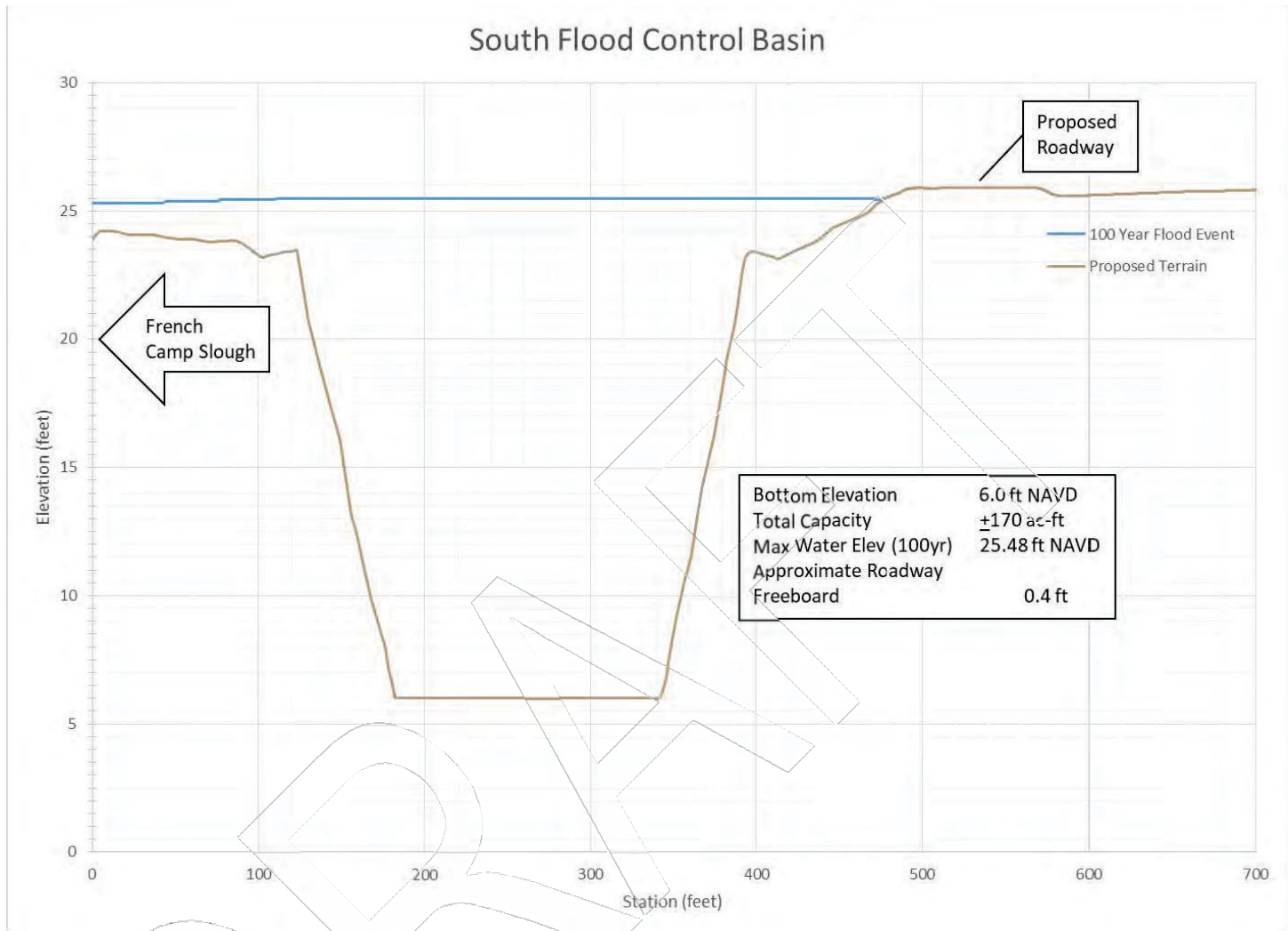


Figure 12 - South Flood Control Basin Maximum Post Project Water Surface Elevation

Land Use

The existing conditions land use for the two-dimensional flow areas was updated to represent proposed conditions. This was accomplished by adjusting the existing roughness coefficients on project parcels from pasture/field roughness to those more appropriate to a light industrial environment.

The results from the hydraulic modeling of the proposed conditions can be found below in Figure 13.

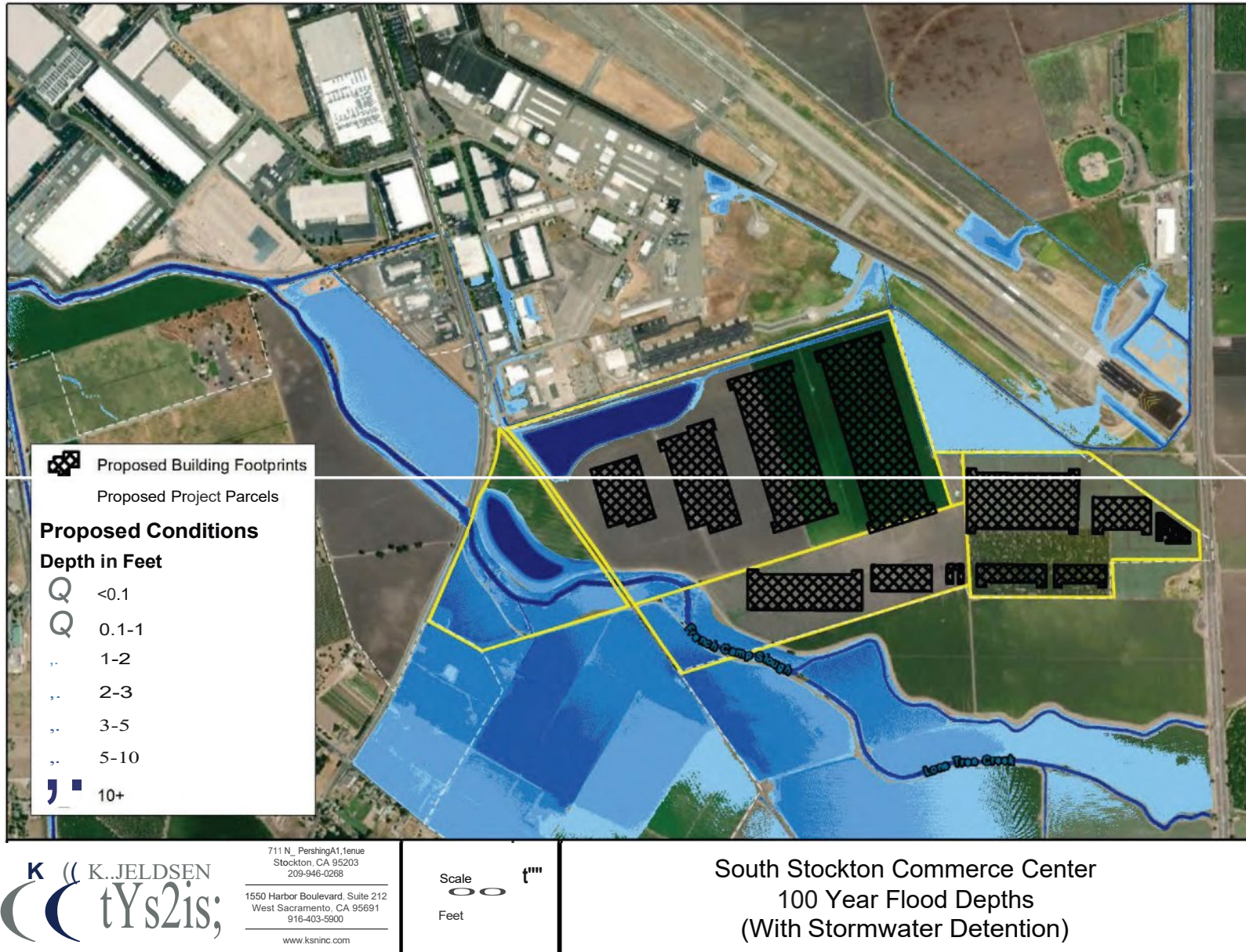


Figure 13 - Proposed Conditions 100-year Flood Depths

Comparison between Existing Conditions & Proposed Conditions

Cross Sections

For a full listing of the modeled hydraulic cross sections and the comparison against base conditions, please refer to the digital appendices (Cross Section Results).

2D Floodplain comparison

For the areas not modeled using cross sections, the maximum water surface elevations from the proposed conditions for the 100-year flood event and the maximum water surface elevations from the existing conditions were exported from HEC-RAS and then the differences in elevations were compared on a grid cell by grid cell basis using automated GIS routines to calculate the differences. There are no offsite impacts which would cause an increase in water surface greater than 0.05 feet.

North Flood Control Basin

In addition to the analyses described above, the proposed flood control system for this project was evaluated to determine if flood control system has sufficient capacity to both hold onsite run off and prevent offsite impacts from the 100-year flood event. Specifically, the storage available in the north flood control basin was reduced by 126 ac-ft at the beginning of the analysis. Again, these analyses were conducted under the assumption that the flood control basins would not be drained during the actual flood event. The results of this analysis indicate that there are no offsite impacts and that the 100-year flood can be contained on site with runoff from the 10-year storm event being held in the north flood control basin.

For the southern control basin, commercial properties which are west of the Union Pacific Railroad would be responsible for providing storm drain improvements including any required conveyance pipes, volume storage, pumps, force mains, etc. needed to handle runoff from their development and will additionally be responsible for analyzing any potential offsite impacts caused by it's proposed storm drain improvements.

Project Next Steps

The next steps would be to develop the necessary engineering data to support a CLOMR application to revise the effective FEMA floodplains.

Appendix 1 – Tabular Cross Section Result

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
Weber Slough	18,875	Existing Conditions	297	25.7	31.4		1.8
Weber Slough	18,875	Proposed Conditions without onsite stormwater detention	297	25.7	31.4	0	1.8
Weber Slough	18,875	Proposed Conditions with onsite stormwater detention	297	25.7	31.4	0	1.8
Weber Slough	18,830	Existing Conditions	297	25.8	31.4		1.9
Weber Slough	18,830	Proposed Conditions without onsite stormwater detention	297	25.8	31.4	0	1.9
Weber Slough	18,830	Proposed Conditions with onsite stormwater detention	297	25.8	31.4	0	1.9
Weber Slough	18,725	Existing Conditions	295	25.5	31.3		1.9
Weber Slough	18,725	Proposed Conditions without onsite stormwater detention	295	25.5	31.3	0	1.9
Weber Slough	18,725	Proposed Conditions with onsite stormwater detention	295	25.5	31.3	0	1.9
Weber Slough	18,503	Existing Conditions	290	25.3	31.3		1.6
Weber Slough	18,503	Proposed Conditions without onsite stormwater detention	290	25.3	31.3	0	1.6
Weber Slough	18,503	Proposed Conditions with onsite stormwater detention	290	25.3	31.3	0	1.6
Weber Slough	18,176	Existing Conditions	287	25.2	31.2		1.5
Weber Slough	18,176	Proposed Conditions without onsite stormwater detention	287	25.2	31.2	0	1.5
Weber Slough	18,176	Proposed Conditions with onsite stormwater detention	287	25.2	31.2	0	1.5
Weber Slough	17,783	Existing Conditions	283	25.3	31.1		1.6
Weber Slough	17,783	Proposed Conditions without onsite stormwater detention	283	25.3	31.1	0	1.6
Weber Slough	17,783	Proposed Conditions with onsite stormwater detention	283	25.3	31.1	0	1.6
Weber Slough	17,607	Existing Conditions	282	24.9	31		1.6
Weber Slough	17,607	Proposed Conditions without onsite stormwater detention	282	24.9	31	0	1.6
Weber Slough	17,607	Proposed Conditions with onsite stormwater detention	282	24.9	31	0	1.6

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
Weber Slough	17,340	Existing Conditions	281	24.8	30.9		1.4
Weber Slough	17,340	Proposed Conditions without onsite stormwater detention	281	24.8	30.9	0	1.4
Weber Slough	17,340	Proposed Conditions with onsite stormwater detention	281	24.8	30.9	0	1.4
Weber Slough	17,046	Existing Conditions	281	24.6	30.9		1.5
Weber Slough	17,046	Proposed Conditions without onsite stormwater detention	281	24.6	30.9	0	1.5
Weber Slough	17,046	Proposed Conditions with onsite stormwater detention	281	24.6	30.9	0	1.5
Weber Slough	16,741	Existing Conditions	280	24.5	30.8		1.4
Weber Slough	16,741	Proposed Conditions without onsite stormwater detention	280	24.5	30.8	0	1.4
Weber Slough	16,741	Proposed Conditions with onsite stormwater detention	280	24.5	30.8	0	1.4
Weber Slough	16,380	Existing Conditions	280	24.6	30.7		1.4
Weber Slough	16,380	Proposed Conditions without onsite stormwater detention	280	24.6	30.7	0	1.4
Weber Slough	16,380	Proposed Conditions with onsite stormwater detention	280	24.6	30.7	0	1.4
Weber Slough	15,876	Existing Conditions	278	24.1	30.6		1.7
Weber Slough	15,876	Proposed Conditions without onsite stormwater detention	278	24.1	30.6	0	1.7
Weber Slough	15,876	Proposed Conditions with onsite stormwater detention	278	24.1	30.6	0	1.7
Weber Slough	15,748	Existing Conditions	278	24.4	30.5		1.8
Weber Slough	15,748	Proposed Conditions without onsite stormwater detention	278	24.4	30.5	0	1.8
Weber Slough	15,748	Proposed Conditions with onsite stormwater detention	278	24.4	30.5	0	1.8
Weber Slough	15,682	Existing Conditions	277	24.4	30.4		1.8
Weber Slough	15,682	Proposed Conditions without onsite stormwater detention	277	24.4	30.4	0	1.8
Weber Slough	15,682	Proposed Conditions with onsite stormwater detention	277	24.4	30.4	0	1.8

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
Weber Slough	15,567	Existing Conditions	277	24.1	30.4		1.6
Weber Slough	15,567	Proposed Conditions without onsite stormwater detention	277	24.1	30.4	0	1.6
Weber Slough	15,567	Proposed Conditions with onsite stormwater detention	277	24.1	30.4	0	1.6
Weber Slough	15,505	Existing Conditions	276	24.2	30.2		1.8
Weber Slough	15,505	Proposed Conditions without onsite stormwater detention	276	24.2	30.2	0	1.8
Weber Slough	15,505	Proposed Conditions with onsite stormwater detention	276	24.2	30.2	0	1.8
Weber Slough	15,247	Existing Conditions	275	24.1	30.1		1.7
Weber Slough	15,247	Proposed Conditions without onsite stormwater detention	275	24.1	30.1	0	1.7
Weber Slough	15,247	Proposed Conditions with onsite stormwater detention	275	24.1	30.1	0	1.7
Weber Slough	14,869	Existing Conditions	273	23.8	30		1.8
Weber Slough	14,869	Proposed Conditions without onsite stormwater detention	273	23.8	30	0	1.8
Weber Slough	14,869	Proposed Conditions with onsite stormwater detention	273	23.8	30	0	1.8
Weber Slough	14,492	Existing Conditions	270	23.8	29.9		1.7
Weber Slough	14,492	Proposed Conditions without onsite stormwater detention	270	23.8	29.9	0	1.7
Weber Slough	14,492	Proposed Conditions with onsite stormwater detention	270	23.8	29.9	0	1.7
Weber Slough	14,182	Existing Conditions	265	23.4	29.8		1.5
Weber Slough	14,182	Proposed Conditions without onsite stormwater detention	265	23.4	29.8	0	1.5
Weber Slough	14,182	Proposed Conditions with onsite stormwater detention	265	23.4	29.8	0	1.5
Weber Slough	13,824	Existing Conditions	230	23.8	29.7		1.4
Weber Slough	13,824	Proposed Conditions without onsite stormwater detention	230	23.8	29.7	0	1.4
Weber Slough	13,824	Proposed Conditions with onsite stormwater detention	230	23.8	29.7	0	1.4

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
Weber Slough	13,720	Existing Conditions	226	23.5	29.7		1.5
Weber Slough	13,720	Proposed Conditions without onsite stormwater detention	226	23.5	29.7	0	1.5
Weber Slough	13,720	Proposed Conditions with onsite stormwater detention	226	23.5	29.7	0	1.5
Weber Slough	13,444	Existing Conditions	226	23.3	29.6		1.5
Weber Slough	13,444	Proposed Conditions without onsite stormwater detention	226	23.3	29.6	0	1.5
Weber Slough	13,444	Proposed Conditions with onsite stormwater detention	226	23.3	29.6	0	1.5
Weber Slough	13,110	Existing Conditions	226	23.7	29.5		1.7
Weber Slough	13,110	Proposed Conditions without onsite stormwater detention	226	23.7	29.5	0	1.7
Weber Slough	13,110	Proposed Conditions with onsite stormwater detention	226	23.7	29.5	0	1.7
Weber Slough	13,006	Existing Conditions	230	23.2	29.4		1.7
Weber Slough	13,006	Proposed Conditions without onsite stormwater detention	230	23.2	29.4	0	1.7
Weber Slough	13,006	Proposed Conditions with onsite stormwater detention	230	23.2	29.4	0	1.7
Weber Slough	12,906	Existing Conditions	230	22.9	29.4		1.4
Weber Slough	12,906	Proposed Conditions without onsite stormwater detention	230	22.9	29.4	0	1.4
Weber Slough	12,906	Proposed Conditions with onsite stormwater detention	230	22.9	29.4	0	1.4
Weber Slough	12,569	Existing Conditions	228	23.1	29.3		1.6
Weber Slough	12,569	Proposed Conditions without onsite stormwater detention	228	23.1	29.3	0	1.6
Weber Slough	12,569	Proposed Conditions with onsite stormwater detention	228	23.1	29.3	0	1.6
Weber Slough	12,517	Existing Conditions	223	23.7	29.3		1.3
Weber Slough	12,517	Proposed Conditions without onsite stormwater detention	223	23.7	29.3	0	1.3
Weber Slough	12,517	Proposed Conditions with onsite stormwater detention	223	23.7	29.3	0	1.3

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
Weber Slough	12,434	Existing Conditions	219	23.1	29.2		1.6
Weber Slough	12,434	Proposed Conditions without onsite stormwater detention	220	23.1	29.2	0	1.6
Weber Slough	12,434	Proposed Conditions with onsite stormwater detention	220	23.1	29.2	0	1.6
Weber Slough	11,796	Existing Conditions	219	23	29.1		1.4
Weber Slough	11,796	Proposed Conditions without onsite stormwater detention	219	23	29.1	0	1.4
Weber Slough	11,796	Proposed Conditions with onsite stormwater detention	219	23	29.1	0	1.4
Weber Slough	11,504	Existing Conditions	213	23.1	29		1.8
Weber Slough	11,504	Proposed Conditions without onsite stormwater detention	213	23.1	29	0	1.8
Weber Slough	11,504	Proposed Conditions with onsite stormwater detention	213	23.1	29	0	1.8
Weber Slough	11,036	Existing Conditions	172	23	28.8		1.6
Weber Slough	11,036	Proposed Conditions without onsite stormwater detention	172	23	28.8	0	1.6
Weber Slough	11,036	Proposed Conditions with onsite stormwater detention	172	23	28.8	0	1.6
Weber Slough	10,612	Existing Conditions	184	23.1	28.6		1.8
Weber Slough	10,612	Proposed Conditions without onsite stormwater detention	185	23.1	28.6	0	1.8
Weber Slough	10,612	Proposed Conditions with onsite stormwater detention	185	23.1	28.6	0	1.8
Weber Slough	10,142	Existing Conditions	178	23.4	28.3		1.8
Weber Slough	10,142	Proposed Conditions without onsite stormwater detention	180	23.4	28.3	0	1.8
Weber Slough	10,142	Proposed Conditions with onsite stormwater detention	180	23.4	28.3	0	1.8
Weber Slough	9,642	Existing Conditions	166	23.2	28		1.8
Weber Slough	9,642	Proposed Conditions without onsite stormwater detention	170	23.2	28	0	1.9
Weber Slough	9,642	Proposed Conditions with onsite stormwater detention	170	23.2	28	0	1.9

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
Weber Slough	9,252	Existing Conditions	146	23.1	27.7		1.9
Weber Slough	9,252	Proposed Conditions without onsite stormwater detention	146	23.1	27.7	0	2
Weber Slough	9,252	Proposed Conditions with onsite stormwater detention	146	23.1	27.7	0	2
Weber Slough	8,930	Existing Conditions	151	22.6	27.6		1.1
Weber Slough	8,930	Proposed Conditions without onsite stormwater detention	142	22.6	27.5	-0.1	1
Weber Slough	8,930	Proposed Conditions with onsite stormwater detention	142	22.6	27.5	0	1
Weber Slough	8,877	Existing Conditions	142	21.2	27.6		1.2
Weber Slough	8,877	Proposed Conditions without onsite stormwater detention	136	21.2	27.5	-0.1	1.1
Weber Slough	8,877	Proposed Conditions with onsite stormwater detention	136	21.2	27.5	0	1.1
Weber Slough	8,835	Existing Conditions	142	21.2	27.6		1.2
Weber Slough	8,835	Proposed Conditions without onsite stormwater detention	136	21.2	27.5	-0.1	1.1
Weber Slough	8,835	Proposed Conditions with onsite stormwater detention	136	21.2	27.5	0	1.1
Weber Slough	8,505	Existing Conditions	142	21.7	27.5		1.3
Weber Slough	8,505	Proposed Conditions without onsite stormwater detention	136	21.7	27.4	-0.1	1.3
Weber Slough	8,505	Proposed Conditions with onsite stormwater detention	136	21.7	27.4	0	1.3
Weber Slough	7,896	Existing Conditions	142	20.8	27.4		1
Weber Slough	7,896	Proposed Conditions without onsite stormwater detention	136	20.8	27.3	-0.1	1
Weber Slough	7,896	Proposed Conditions with onsite stormwater detention	136	20.8	27.3	0	1
Weber Slough	7,404	Existing Conditions	142	21.5	27.2		1.6
Weber Slough	7,404	Proposed Conditions without onsite stormwater detention	136	21.5	27.1	-0.1	1.5
Weber Slough	7,404	Proposed Conditions with onsite stormwater detention	136	21.5	27.1	0	1.5

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
Weber Slough	6,915	Existing Conditions	142	20.9	27		1.4
Weber Slough	6,915	Proposed Conditions without onsite stormwater detention	136	20.9	26.9	-0.1	1.4
Weber Slough	6,915	Proposed Conditions with onsite stormwater detention	136	20.9	26.9	0	1.4
Weber Slough	6,465	Existing Conditions	142	21.9	26.8		1.5
Weber Slough	6,465	Proposed Conditions without onsite stormwater detention	136	21.9	26.7	-0.1	1.5
Weber Slough	6,465	Proposed Conditions with onsite stormwater detention	136	21.9	26.7	0	1.5
Weber Slough	5,961	Existing Conditions	142	21.1	26.5		1.5
Weber Slough	5,961	Proposed Conditions without onsite stormwater detention	136	21.1	26.5	0	1.5
Weber Slough	5,961	Proposed Conditions with onsite stormwater detention	136	21.1	26.5	0	1.5
Weber Slough	5,514	Existing Conditions	121	20.5	26.4		1.2
Weber Slough	5,514	Proposed Conditions without onsite stormwater detention	118	20.5	26.3	-0.1	1.2
Weber Slough	5,514	Proposed Conditions with onsite stormwater detention	118	20.5	26.3	0	1.2
Weber Slough	5,086	Existing Conditions	64	20.4	26.2		0.7
Weber Slough	5,086	Proposed Conditions without onsite stormwater detention	117	20.4	26.2	0	1.2
Weber Slough	5,086	Proposed Conditions with onsite stormwater detention	117	20.4	26.2	0	1.2
Weber Slough	4,840	Existing Conditions	56	20.1	26.2		0.5
Weber Slough	4,840	Proposed Conditions without onsite stormwater detention	112	20.1	26.2	0	1.1
Weber Slough	4,840	Proposed Conditions with onsite stormwater detention	112	20.1	26.2	0	1.1
Weber Slough	4,602	Existing Conditions	56	19.8	26.2		0.5
Weber Slough	4,602	Proposed Conditions without onsite stormwater detention	103	19.8	26.1	-0.1	1
Weber Slough	4,602	Proposed Conditions with onsite stormwater detention	103	19.8	26.1	0	1

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
Weber Slough	3,769	Existing Conditions	62	19.6	23.7		1.3
Weber Slough	3,769	Proposed Conditions without onsite stormwater detention	54	19.6	23.5	-0.2	1.3
Weber Slough	3,769	Proposed Conditions with onsite stormwater detention	54	19.6	23.5	0	1.3
Weber Slough	3,710	Existing Conditions	62	20	23.7		1.1
Weber Slough	3,710	Proposed Conditions without onsite stormwater detention	54	20	23.5	-0.2	1.1
Weber Slough	3,710	Proposed Conditions with onsite stormwater detention	54	20	23.5	0	1.1
Weber Slough	3,634	Existing Conditions	62	19.7	23.6		0.9
Weber Slough	3,634	Proposed Conditions without onsite stormwater detention	54	19.7	23.4	-0.2	0.8
Weber Slough	3,634	Proposed Conditions with onsite stormwater detention	54	19.7	23.4	0	0.8
Weber Slough	3,484	Existing Conditions	62	19.5	23.5		1.2
Weber Slough	3,484	Proposed Conditions without onsite stormwater detention	54	19.5	23.4	-0.1	1.2
Weber Slough	3,484	Proposed Conditions with onsite stormwater detention	54	19.5	23.4	0	1.2
Weber Slough	3,263	Existing Conditions	62	19.5	23.4		1.2
Weber Slough	3,263	Proposed Conditions without onsite stormwater detention	54	19.5	23.3	-0.1	1.1
Weber Slough	3,263	Proposed Conditions with onsite stormwater detention	54	19.5	23.3	0	1.1
Weber Slough	3,032	Existing Conditions	62	19.5	23.2		1.5
Weber Slough	3,032	Proposed Conditions without onsite stormwater detention	54	19.5	23.1	-0.1	1.4
Weber Slough	3,032	Proposed Conditions with onsite stormwater detention	54	19.5	23.1	0	1.4
Weber Slough	2,787	Existing Conditions	62	19.6	22.9		1.7
Weber Slough	2,787	Proposed Conditions without onsite stormwater detention	54	19.6	22.8	-0.1	1.5
Weber Slough	2,787	Proposed Conditions with onsite stormwater detention	54	19.6	22.8	0	1.5

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
Weber Slough	2,580	Existing Conditions	62	19.5	22.5		2
Weber Slough	2,580	Proposed Conditions without onsite stormwater detention	54	19.5	22.4	-0.1	1.8
Weber Slough	2,580	Proposed Conditions with onsite stormwater detention	54	19.5	22.4	0	1.8
Weber Slough	2,449	Existing Conditions	55	18.4	22.3		1.1
Weber Slough	2,449	Proposed Conditions without onsite stormwater detention	54	18.4	22.3	0	1
Weber Slough	2,449	Proposed Conditions with onsite stormwater detention	54	18.4	22.3	0	1
Weber Slough	2,258	Existing Conditions	55	18.9	22		2
Weber Slough	2,258	Proposed Conditions without onsite stormwater detention	54	18.9	22	0	2
Weber Slough	2,258	Proposed Conditions with onsite stormwater detention	54	18.9	22	0	2
Weber Slough	2,114	Existing Conditions	105	16	21.8		0.8
Weber Slough	2,114	Proposed Conditions without onsite stormwater detention	104	16	21.8	0	0.8
Weber Slough	2,114	Proposed Conditions with onsite stormwater detention	104	16	21.8	0	0.8
Weber Slough	2,011	Existing Conditions	105	17.2	21.8		1
Weber Slough	2,011	Proposed Conditions without onsite stormwater detention	104	17.2	21.8	0	1
Weber Slough	2,011	Proposed Conditions with onsite stormwater detention	104	17.2	21.8	0	1
Weber Slough	1,592	Existing Conditions	53	16	21.7		0.3
Weber Slough	1,592	Proposed Conditions without onsite stormwater detention	40	16	21.7	0	0.2
Weber Slough	1,592	Proposed Conditions with onsite stormwater detention	40	16	21.7	0	0.2
Weber Slough	1,262	Existing Conditions	53	14.9	21.7		0.2
Weber Slough	1,262	Proposed Conditions without onsite stormwater detention	40	14.9	21.7	0	0.2
Weber Slough	1,262	Proposed Conditions with onsite stormwater detention	40	14.9	21.7	0	0.2

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
Weber Slough	792	Existing Conditions	53	14.9	21.7		0.2
Weber Slough	792	Proposed Conditions without onsite stormwater detention	40	14.9	21.7	0	0.1
Weber Slough	792	Proposed Conditions with onsite stormwater detention	40	14.9	21.7	0	0.1
Weber Slough	724	Existing Conditions	53	15.1	21.7		0.2
Weber Slough	724	Proposed Conditions without onsite stormwater detention	40	15.1	21.7	0	0.1
Weber Slough	724	Proposed Conditions with onsite stormwater detention	40	15.1	21.7	0	0.1
Weber Slough	471	Existing Conditions	65	12.3	21.7		0.2
Weber Slough	471	Proposed Conditions without onsite stormwater detention	52	12.3	21.7	0	0.2
Weber Slough	471	Proposed Conditions with onsite stormwater detention	52	12.3	21.7	0	0.2
Weber Slough	124	Existing Conditions	82	11.2	21.7		0.2
Weber Slough	124	Proposed Conditions without onsite stormwater detention	70	11.2	21.7	0	0.1
Weber Slough	124	Proposed Conditions with onsite stormwater detention	70	11.2	21.7	0	0.1
Weber Slough	84	Existing Conditions	84	10.6	21.7		0.2
Weber Slough	84	Proposed Conditions without onsite stormwater detention	71	10.6	21.7	0	0.1
Weber Slough	84	Proposed Conditions with onsite stormwater detention	71	10.6	21.7	0	0.1
Weber Slough	18	Existing Conditions	84	9.4	21.7		0.1
Weber Slough	18	Proposed Conditions without onsite stormwater detention	71	9.4	21.7	0	0.1
Weber Slough	18	Proposed Conditions with onsite stormwater detention	71	9.4	21.7	0	0.1
Weber Slough	8	Existing Conditions	84	8.4	21.7		0
Weber Slough	8	Proposed Conditions without onsite stormwater detention	71	8.4	21.7	0	0
Weber Slough	8	Proposed Conditions with onsite stormwater detention	71	8.4	21.7	0	0

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
North Fork South Littlejohns Creek	2,370	Existing Conditions	866	16.8	28.4		2.6
North Fork South Littlejohns Creek	2,370	Proposed Conditions without onsite stormwater detention	869	16.8	28.4	0	2.6
North Fork South Littlejohns Creek	2,370	Proposed Conditions with onsite stormwater detention	869	16.8	28.4	0	2.6
North Fork South Littlejohns Creek	1,624	Existing Conditions	610	17.6	28.3		1.8
North Fork South Littlejohns Creek	1,624	Proposed Conditions without onsite stormwater detention	612	17.6	28.3	0	1.8
North Fork South Littlejohns Creek	1,624	Proposed Conditions with onsite stormwater detention	612	17.6	28.3	0	1.8
North Fork South Littlejohns Creek	998	Existing Conditions	1109	16.9	27.9		2.8
North Fork South Littlejohns Creek	998	Proposed Conditions without onsite stormwater detention	1114	16.9	27.9	0	2.9
North Fork South Littlejohns Creek	998	Proposed Conditions with onsite stormwater detention	1114	16.9	27.9	0	2.9
North Fork South Littlejohns Creek	581	Existing Conditions	1567	16.7	27.2		4.9
North Fork South Littlejohns Creek	581	Proposed Conditions without onsite stormwater detention	1568	16.7	27.2	0	4.9
North Fork South Littlejohns Creek	581	Proposed Conditions with onsite stormwater detention	1568	16.7	27.2	0	4.9
French Camp Slough	34,129	Existing Conditions	3268	14.6	27.2		3.6
French Camp Slough	34,129	Proposed Conditions without onsite stormwater detention	3273	14.6	27.2	0	3.6
French Camp Slough	34,129	Proposed Conditions with onsite stormwater detention	3273	14.6	27.2	0	3.6
French Camp Slough	34,128	Existing Conditions	3268	14.8	27.2		3.6
French Camp Slough	34,128	Proposed Conditions without onsite stormwater detention	3273	14.8	27.2	0	3.7
French Camp Slough	34,128	Proposed Conditions with onsite stormwater detention	3273	14.8	27.2	0	3.7
French Camp Slough	33,683	Existing Conditions	3268	14.7	27		2.9
French Camp Slough	33,683	Proposed Conditions without onsite stormwater detention	3273	14.7	27	0	2.9
French Camp Slough	33,683	Proposed Conditions with onsite stormwater detention	3273	14.7	27	0	2.9

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
French Camp Slough	32,896	Existing Conditions	3268	14.1	26.6		2.5
French Camp Slough	32,896	Proposed Conditions without onsite stormwater detention	3273	14.1	26.6	0	2.6
French Camp Slough	32,896	Proposed Conditions with onsite stormwater detention	3273	14.1	26.6	0	2.6
French Camp Slough	32,869	Existing Conditions	3268	12.8	26.6		2.3
French Camp Slough	32,869	Proposed Conditions without onsite stormwater detention	3273	12.8	26.6	0	2.3
French Camp Slough	32,869	Proposed Conditions with onsite stormwater detention	3273	12.8	26.6	0	2.3
French Camp Slough	32,584	Existing Conditions	3268	15.1	26.4		2.7
French Camp Slough	32,584	Proposed Conditions without onsite stormwater detention	3273	15.1	26.4	0	2.7
French Camp Slough	32,584	Proposed Conditions with onsite stormwater detention	3273	15.1	26.4	0	2.7
French Camp Slough	32,317	Existing Conditions	3268	15.1	26.3		2.9
French Camp Slough	32,317	Proposed Conditions without onsite stormwater detention	3272	15.1	26.2	-0.1	3
French Camp Slough	32,317	Proposed Conditions with onsite stormwater detention	3272	15.1	26.2	0	3
French Camp Slough	32,127	Existing Conditions	3275	14.9	26.1		3
French Camp Slough	32,127	Proposed Conditions without onsite stormwater detention	3280	14.9	26.1	0	3.1
French Camp Slough	32,127	Proposed Conditions with onsite stormwater detention	3280	14.9	26.1	0	3.1
French Camp Slough	31,944	Existing Conditions	3282	14.5	26		3.4
French Camp Slough	31,944	Proposed Conditions without onsite stormwater detention	3287	14.5	25.9	-0.1	3.5
French Camp Slough	31,944	Proposed Conditions with onsite stormwater detention	3287	14.5	25.9	0	3.5
French Camp Slough	31,902	Existing Conditions	3282	14.5	26.1		2.6
French Camp Slough	31,902	Proposed Conditions without onsite stormwater detention	3287	14.5	26	-0.1	2.6
French Camp Slough	31,902	Proposed Conditions with onsite stormwater detention	3287	14.5	26	0	2.6

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
French Camp Slough	31,873	Existing Conditions	3282	14.5	26		2.5
French Camp Slough	31,873	Proposed Conditions without onsite stormwater detention	3287	14.5	26	0	2.5
French Camp Slough	31,873	Proposed Conditions with onsite stormwater detention	3287	14.5	26	0	2.5
French Camp Slough	31,782	Existing Conditions	3278	14.5	26		2.2
French Camp Slough	31,782	Proposed Conditions without onsite stormwater detention	3284	14.5	26	0	2.2
French Camp Slough	31,782	Proposed Conditions with onsite stormwater detention	3284	14.5	26	0	2.2
French Camp Slough	30,856	Existing Conditions	2653	14.2	25.8		1.5
French Camp Slough	30,856	Proposed Conditions without onsite stormwater detention	2555	14.2	25.8	0	1.5
French Camp Slough	30,856	Proposed Conditions with onsite stormwater detention	2555	14.2	25.8	0	1.5
French Camp Slough	30,330	Existing Conditions	2832	14	25.4		3.6
French Camp Slough	30,330	Proposed Conditions without onsite stormwater detention	2625	14	25.4	0	3.3
French Camp Slough	30,330	Proposed Conditions with onsite stormwater detention	2625	14	25.4	0	3.3
French Camp Slough	30,270	Existing Conditions	2859	14	25.5		2.6
French Camp Slough	30,270	Proposed Conditions without onsite stormwater detention	2660	14	25.5	0	2.4
French Camp Slough	30,270	Proposed Conditions with onsite stormwater detention	2660	14	25.5	0	2.4
French Camp Slough	30,002	Existing Conditions	3169	13.9	25.2		3.2
French Camp Slough	30,002	Proposed Conditions without onsite stormwater detention	3044	13.9	25.2	0	3.1
French Camp Slough	30,002	Proposed Conditions with onsite stormwater detention	3044	13.9	25.2	0	3.1
French Camp Slough	29,637	Existing Conditions	3652	13.8	25.1		2.5
French Camp Slough	29,637	Proposed Conditions without onsite stormwater detention	3656	13.8	25.1	0	2.5
French Camp Slough	29,637	Proposed Conditions with onsite stormwater detention	3656	13.8	25.1	0	2.5

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
French Camp Slough	29,473	Existing Conditions	3652	13.5	24.7		3.6
French Camp Slough	29,473	Proposed Conditions without onsite stormwater detention	3656	13.5	24.7	0	3.6
French Camp Slough	29,473	Proposed Conditions with onsite stormwater detention	3656	13.5	24.7	0	3.6
French Camp Slough	28,680	Existing Conditions	3195	11.3	24.1		4.3
French Camp Slough	28,680	Proposed Conditions without onsite stormwater detention	3198	11.3	24.1	0	4.3
French Camp Slough	28,680	Proposed Conditions with onsite stormwater detention	3198	11.3	24.1	0	4.3
French Camp Slough	27,495	Existing Conditions	3079	10.2	23.3		4.5
French Camp Slough	27,495	Proposed Conditions without onsite stormwater detention	3082	10.2	23.3	0	4.5
French Camp Slough	27,495	Proposed Conditions with onsite stormwater detention	3082	10.2	23.3	0	4.5
French Camp Slough	26,393	Existing Conditions	3602	8.8	21.7		6.1
French Camp Slough	26,393	Proposed Conditions without onsite stormwater detention	3607	8.8	21.7	0	6.1
French Camp Slough	26,393	Proposed Conditions with onsite stormwater detention	3607	8.8	21.7	0	6.1
French Camp Slough	25,508	Existing Conditions	3686	7.5	21.7		5.8
French Camp Slough	25,508	Proposed Conditions without onsite stormwater detention	3678	7.5	21.7	0	5.8
French Camp Slough	25,508	Proposed Conditions with onsite stormwater detention	3678	7.5	21.7	0	5.8
French Camp Slough	25,507	Existing Conditions	3686	7.5	21.7		5.8
French Camp Slough	25,507	Proposed Conditions without onsite stormwater detention	3678	7.5	21.7	0	5.8
French Camp Slough	25,507	Proposed Conditions with onsite stormwater detention	3678	7.5	21.7	0	5.8
French Camp Slough	25,450	Existing Conditions	3842	6.5	21.7		5.4
French Camp Slough	25,450	Proposed Conditions without onsite stormwater detention	3832	6.5	21.6	-0.1	5.4
French Camp Slough	25,450	Proposed Conditions with onsite stormwater detention	3833	6.5	21.6	0	5.4

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
French Camp Slough	24,381	Existing Conditions	3842	5.1	20.3		6.1
French Camp Slough	24,381	Proposed Conditions without onsite stormwater detention	3832	5.1	20.2	-0.1	6.1
French Camp Slough	24,381	Proposed Conditions with onsite stormwater detention	3832	5.1	20.2	0	6.1
French Camp Slough	23,219	Existing Conditions	3841	3.1	19.2		4.8
French Camp Slough	23,219	Proposed Conditions without onsite stormwater detention	3832	3.1	19.2	0	4.8
French Camp Slough	23,219	Proposed Conditions with onsite stormwater detention	3832	3.1	19.2	0	4.8
French Camp Slough	22,761	Existing Conditions	3841	4	18.7		5.8
French Camp Slough	22,761	Proposed Conditions without onsite stormwater detention	3832	4	18.7	0	5.8
French Camp Slough	22,761	Proposed Conditions with onsite stormwater detention	3832	4	18.7	0	5.8
French Camp Slough	22,697	Existing Conditions	3841	3.9	18.9		4.8
French Camp Slough	22,697	Proposed Conditions without onsite stormwater detention	3832	3.9	18.8	-0.1	4.8
French Camp Slough	22,697	Proposed Conditions with onsite stormwater detention	3832	3.9	18.8	0	4.8
French Camp Slough	22,607	Existing Conditions	3841	5.4	18.8		4.6
French Camp Slough	22,607	Proposed Conditions without onsite stormwater detention	3832	5.4	18.8	0	4.6
French Camp Slough	22,607	Proposed Conditions with onsite stormwater detention	3832	5.4	18.8	0	4.6
French Camp Slough	22,577	Existing Conditions	3841	5.6	18.4		4.4
French Camp Slough	22,577	Proposed Conditions without onsite stormwater detention	3832	5.6	18.4	0	4.4
French Camp Slough	22,577	Proposed Conditions with onsite stormwater detention	3832	5.6	18.4	0	4.4
French Camp Slough	22,420	Existing Conditions	3382	0.7	18.6		2.8
French Camp Slough	22,420	Proposed Conditions without onsite stormwater detention	3375	0.7	18.6	0	2.7
French Camp Slough	22,420	Proposed Conditions with onsite stormwater detention	3375	0.7	18.6	0	2.7

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
French Camp Slough	22,317	Existing Conditions	3357	3.2	18.5		3.3
French Camp Slough	22,317	Proposed Conditions without onsite stormwater detention	3350	3.2	18.5	0	3.3
French Camp Slough	22,317	Proposed Conditions with onsite stormwater detention	3350	3.2	18.5	0	3.3
French Camp Slough	22,261	Existing Conditions	3357	2	18.5		3.1
French Camp Slough	22,261	Proposed Conditions without onsite stormwater detention	3350	2	18.5	0	3.1
French Camp Slough	22,261	Proposed Conditions with onsite stormwater detention	3350	2	18.5	0	3.1
French Camp Slough	21,814	Existing Conditions	3289	0.8	18.1		4.7
French Camp Slough	21,814	Proposed Conditions without onsite stormwater detention	3284	0.8	18.1	0	4.7
French Camp Slough	21,814	Proposed Conditions with onsite stormwater detention	3285	0.8	18.1	0	4.7
French Camp Slough	20,945	Existing Conditions	3169	1.3	17.7		3.3
French Camp Slough	20,945	Proposed Conditions without onsite stormwater detention	3165	1.3	17.7	0	3.3
French Camp Slough	20,945	Proposed Conditions with onsite stormwater detention	3165	1.3	17.7	0	3.3
French Camp Slough	20,006	Existing Conditions	3197	-0.6	17.4		2.6
French Camp Slough	20,006	Proposed Conditions without onsite stormwater detention	3194	-0.6	17.4	0	2.6
French Camp Slough	20,006	Proposed Conditions with onsite stormwater detention	3194	-0.6	17.4	0	2.6
French Camp Slough	19,727	Existing Conditions	3398	0.9	17.3		3
French Camp Slough	19,727	Proposed Conditions without onsite stormwater detention	3394	0.9	17.3	0	3
French Camp Slough	19,727	Proposed Conditions with onsite stormwater detention	3394	0.9	17.3	0	3
French Camp Slough	19,672	Existing Conditions	3398	-0.4	17.3		2.5
French Camp Slough	19,672	Proposed Conditions without onsite stormwater detention	3394	-0.4	17.3	0	2.5
French Camp Slough	19,672	Proposed Conditions with onsite stormwater detention	3394	-0.4	17.2	-0.1	2.5

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
French Camp Slough	19,418	Existing Conditions	3353	-2.2	17.2		2.6
French Camp Slough	19,418	Proposed Conditions without onsite stormwater detention	3349	-2.2	17.2	0	2.6
French Camp Slough	19,418	Proposed Conditions with onsite stormwater detention	3350	-2.2	17.2	0	2.6
French Camp Slough	19,195	Existing Conditions	3354	-1.2	17.2		2.2
French Camp Slough	19,195	Proposed Conditions without onsite stormwater detention	3351	-1.2	17.2	0	2.2
French Camp Slough	19,195	Proposed Conditions with onsite stormwater detention	3352	-1.2	17.2	0	2.2
French Camp Slough	19,098	Existing Conditions	3221	0	16		5.8
French Camp Slough	19,098	Proposed Conditions without onsite stormwater detention	3215	0	16	0	5.8
French Camp Slough	19,098	Proposed Conditions with onsite stormwater detention	3215	0	16	0	5.8
French Camp Slough	18,490	Existing Conditions	3215	-0.6	15.5		1.7
French Camp Slough	18,490	Proposed Conditions without onsite stormwater detention	3205	-0.6	15.5	0	1.7
French Camp Slough	18,490	Proposed Conditions with onsite stormwater detention	3205	-0.6	15.5	0	1.7
French Camp Slough	17,465	Existing Conditions	3251	-4.4	14.9		3.5
French Camp Slough	17,465	Proposed Conditions without onsite stormwater detention	3236	-4.4	14.9	0	3.5
French Camp Slough	17,465	Proposed Conditions with onsite stormwater detention	3236	-4.4	14.9	0	3.5
French Camp Slough	17,157	Existing Conditions	3800	-3.2	14.9		2.6
French Camp Slough	17,157	Proposed Conditions without onsite stormwater detention	3776	-3.2	14.9	0	2.6
French Camp Slough	17,157	Proposed Conditions with onsite stormwater detention	3776	-3.2	14.9	0	2.6
French Camp Slough	17,156	Existing Conditions	3800	-3.2	14.9		2.6
French Camp Slough	17,156	Proposed Conditions without onsite stormwater detention	3776	-3.2	14.9	0	2.6
French Camp Slough	17,156	Proposed Conditions with onsite stormwater detention	3776	-3.2	14.9	0	2.6

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
French Camp Slough	15,807	Existing Conditions	3541	-2.1	14.5		2.6
French Camp Slough	15,807	Proposed Conditions without onsite stormwater detention	3487	-2.1	14.5	0	2.5
French Camp Slough	15,807	Proposed Conditions with onsite stormwater detention	3486	-2.1	14.5	0	2.5
French Camp Slough	14,524	Existing Conditions	3659	-3.5	14.4		1.3
French Camp Slough	14,524	Proposed Conditions without onsite stormwater detention	3621	-3.5	14.3	-0.1	1.2
French Camp Slough	14,524	Proposed Conditions with onsite stormwater detention	3621	-3.5	14.3	0	1.2
French Camp Slough	13,252	Existing Conditions	4028	-2.4	14.2		1.7
French Camp Slough	13,252	Proposed Conditions without onsite stormwater detention	3999	-2.4	14.1	-0.1	1.7
French Camp Slough	13,252	Proposed Conditions with onsite stormwater detention	3999	-2.4	14.1	0	1.7
French Camp Slough	12,503	Existing Conditions	4208	-1.4	13.9		2.9
French Camp Slough	12,503	Proposed Conditions without onsite stormwater detention	4177	-1.4	13.9	0	2.9
French Camp Slough	12,503	Proposed Conditions with onsite stormwater detention	4177	-1.4	13.9	0	2.9
French Camp Slough	12,419	Existing Conditions	4208	-2	13.8		2.8
French Camp Slough	12,419	Proposed Conditions without onsite stormwater detention	4177	-2	13.8	0	2.8
French Camp Slough	12,419	Proposed Conditions with onsite stormwater detention	4177	-2	13.8	0	2.8
French Camp Slough	12,382	Existing Conditions	4208	-1.9	13.8		2.7
French Camp Slough	12,382	Proposed Conditions without onsite stormwater detention	4177	-1.9	13.8	0	2.7
French Camp Slough	12,382	Proposed Conditions with onsite stormwater detention	4177	-1.9	13.8	0	2.7
French Camp Slough	12,272	Existing Conditions	4208	-0.7	13.8		2.5
French Camp Slough	12,272	Proposed Conditions without onsite stormwater detention	4177	-0.7	13.8	0	2.5
French Camp Slough	12,272	Proposed Conditions with onsite stormwater detention	4177	-0.7	13.8	0	2.5

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
French Camp Slough	11,592	Existing Conditions	4208	0	13.7		1.9
French Camp Slough	11,592	Proposed Conditions without onsite stormwater detention	4176	0	13.7	0	1.9
French Camp Slough	11,592	Proposed Conditions with onsite stormwater detention	4177	0	13.7	0	1.9
French Camp Slough	10,591	Existing Conditions	4207	-1.1	13.6		1.7
French Camp Slough	10,591	Proposed Conditions without onsite stormwater detention	4176	-1.1	13.6	0	1.7
French Camp Slough	10,591	Proposed Conditions with onsite stormwater detention	4176	-1.1	13.6	0	1.7
French Camp Slough	10,490	Existing Conditions	4211	-0.1	13.6		1.9
French Camp Slough	10,490	Proposed Conditions without onsite stormwater detention	4180	-0.1	13.5	-0.1	1.9
French Camp Slough	10,490	Proposed Conditions with onsite stormwater detention	4180	-0.1	13.5	0	1.9
French Camp Slough	10,130	Existing Conditions	4211	-1.6	13.5		1.7
French Camp Slough	10,130	Proposed Conditions without onsite stormwater detention	4179	-1.6	13.5	0	1.7
French Camp Slough	10,130	Proposed Conditions with onsite stormwater detention	4179	-1.6	13.5	0	1.7
French Camp Slough	10,030	Existing Conditions	4210	-1.8	13.5		1.7
French Camp Slough	10,030	Proposed Conditions without onsite stormwater detention	4179	-1.8	13.5	0	1.7
French Camp Slough	10,030	Proposed Conditions with onsite stormwater detention	4179	-1.8	13.5	0	1.7
French Camp Slough	9,610	Existing Conditions	4210	-2.1	13.4		1.4
French Camp Slough	9,610	Proposed Conditions without onsite stormwater detention	4179	-2.1	13.4	0	1.4
French Camp Slough	9,610	Proposed Conditions with onsite stormwater detention	4179	-2.1	13.4	0	1.4
French Camp Slough	8,732	Existing Conditions	4209	-1.7	13.3		1.5
French Camp Slough	8,732	Proposed Conditions without onsite stormwater detention	4178	-1.7	13.3	0	1.5
French Camp Slough	8,732	Proposed Conditions with onsite stormwater detention	4179	-1.7	13.3	0	1.5

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
French Camp Slough	7,055	Existing Conditions	4207	-3.3	13.1		1.9
French Camp Slough	7,055	Proposed Conditions without onsite stormwater detention	4177	-3.3	13.1	0	1.9
French Camp Slough	7,055	Proposed Conditions with onsite stormwater detention	4177	-3.3	13.1	0	1.9
French Camp Slough	6,254	Existing Conditions	4754	-1.1	13.1		1.1
French Camp Slough	6,254	Proposed Conditions without onsite stormwater detention	4680	-1.1	13.1	0	1.1
French Camp Slough	6,254	Proposed Conditions with onsite stormwater detention	4680	-1.1	13.1	0	1.1
French Camp Slough	6,253	Existing Conditions	4754	-1.1	13.1		1.1
French Camp Slough	6,253	Proposed Conditions without onsite stormwater detention	4680	-1.1	13.1	0	1.1
French Camp Slough	6,253	Proposed Conditions with onsite stormwater detention	4680	-1.1	13.1	0	1.1
French Camp Slough	5,252	Existing Conditions	4754	-1	13		1.7
French Camp Slough	5,252	Proposed Conditions without onsite stormwater detention	4680	-1	13	0	1.6
French Camp Slough	5,252	Proposed Conditions with onsite stormwater detention	4680	-1	13	0	1.6
French Camp Slough	3,981	Existing Conditions	4752	-9	13		0.4
French Camp Slough	3,981	Proposed Conditions without onsite stormwater detention	-177	-9	13	0	0
French Camp Slough	3,981	Proposed Conditions with onsite stormwater detention	-177	-9	13	0	0
French Camp Slough	2,774	Existing Conditions	4753	-5.4	13		0.3
French Camp Slough	2,774	Proposed Conditions without onsite stormwater detention	4680	-5.4	13	0	0.3
French Camp Slough	2,774	Proposed Conditions with onsite stormwater detention	4680	-5.4	13	0	0.3
French Camp Slough	1,475	Existing Conditions	-97	-13.6	12.9		0
French Camp Slough	1,475	Proposed Conditions without onsite stormwater detention	-97	-13.6	12.9	0	0
French Camp Slough	1,475	Proposed Conditions with onsite stormwater detention	-97	-13.6	12.9	0	0

River	River Station	Plan	Peak Discharge Total (cfs)	Channel Invert (FT NAVD88)	Maximum W.S. Elev (FT NAVD88)	Change in W.S. Elev (FT)	Velocity (ft/s)
French Camp Slough	350	Existing Conditions	1520	-6.6	12.9		0.1
French Camp Slough	350	Proposed Conditions without onsite stormwater detention	1520	-6.6	12.9	0	0.1
French Camp Slough	350	Proposed Conditions with onsite stormwater detention	1520	-6.6	12.9	0	0.1

APPENDIX E

Recirculated Draft EIR Notice of Preparation and NOP Comments (2024)

CITY OF STOCKTON
REVISED NOTICE OF PREPARATION
OF A RECIRCULATED ENVIRONMENTAL IMPACT REPORT

DATE: August 29, 2024

TO: Responsible and Trustee Agencies, Organizations, and Interested Parties

FROM: City of Stockton, Community Development Department (Lead Agency)

SUBJECT: **PROPOSED RECIRCULATION OF ENVIRONMENTAL IMPACT REPORT, SOUTH STOCKTON COMMERCE CENTER**

PROJECT TITLE: South Stockton Commerce Center

CITY PROJECT FILE NUMBER: P20-0024

STATE CLEARINGHOUSE NUMBER: 2020090561

The City of Stockton will revise and recirculate portions of the Draft Environmental Impact Report (EIR) for the South Stockton Commerce Center project (hereafter, the "project") pursuant to the requirements of Section 15088.5 of the CEQA Guidelines. The Draft EIR was originally circulated for agency and public review on October 15, 2021, and is available for review at:

www.ci.stockton.ea.us/documents/bySC/CommunityDevelopment.html

Current information related to the project, project background, and the reasons why the Draft EIR is being revised and recirculated are discussed in detail on the following pages.

When a Lead Agency requires preparation of an EIR, Section 15082 of the CEQA Guidelines requires the City to prepare a Notice of Preparation (NOP) to provide to the Office of Planning and Research, responsible and trustee agencies, and other interested parties with sufficient information describing the project and its potential environmental effects to enable the agencies and other parties to make a meaningful response. There is no known CEQA requirement that the Lead Agency prepare a revised NOP if it proposes to recirculate a Draft EIR. The initial NOP, circulated for review on September 30, 2020, and the original Draft EIR of October 15, 2021, did not reflect the changes in the Project Description resulting from compliance with the Stockton Municipal Code Title 16 Ordinance (establishing new logistics warehouse development standards) and the refined utility plans for the project. This change in the project requires modification of the Draft EIR's Project Description and other chapters related to the modifications. Therefore, in consultation with and concurrence from the applicant, the City is circulating this Revised NOP to announce and explain the decision to revise and recirculate portions of the Draft EIR and solicit comments on the contents and scope thereof.

The project description, location and an initial description of the probable environmental effects of the project to be considered in the Revised and Recirculated Draft EIR are described in the remainder of the NOP, below.

As specified by the CEQA Guidelines, the Revised NOP will be circulated for a 30-day comment period. The comment period for the Revised NOP runs from Friday, August 30, 2024 to Monday, September 30, 2024. The City welcomes your input during the comment period. In the event the City has not received either a response or a well-justified request for additional time from a Responsible Agency by the end of the review period, the City may presume that the Responsible Agency has no response (CEQA Guidelines Section 15082[b][2]).

By virtue of its potential employment, site acreage and potential building square footage the project is considered a project of "statewide, regional, or areawide significance" (CEQA Guidelines Section 15206 (b)(2)(E))¹ and therefore requires a scoping meeting (CEQA Guidelines Section 15082(c)(I)). A virtual scoping meeting for this project will be held from 5:30 p.m. to 6:30 p.m. on Tuesday, September 24, 2024. You may attend the meeting by going to <https://us02web.zoom.us/j/2059653242?pwd=clRFUGNMQkVLWTYxc3NqSUNwM0M3dz09&omn=84277363385> and clicking "join."

The meeting number ID is **205 965 3242**, the meeting password is **7cSJD5**.

If you have any questions regarding this matter or would like to submit comments on behalf of your agency/organization or as an individual, please submit your comments to the City's Project Manager at:

City of Stockton
Community Development Department
Attention: Nicole Moore, Contract Planner
345 N. El Dorado Street
Stockton, CA 95202
Work phone: 209-227-3138
Email: nicole.moore.ctr@stocktonca.gov.

¹ CEQA Guidelines Section 15206(b)(2)(E) specifies that projects of "statewide, regional, or areawide significance" include: "A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or encompassing more than 650,000 square feet of floor area." The project meets all three of these criteria.

South Stockton Commerce Center REVISED NOTICE OF PREPARATION SUPPLEMENTAL INFORMATION

The following information consists of a description and location of the proposed project as well as information on the environmental issues to be discussed in the Revised and Recirculated EIR. As stated above in the NOP, the proposed project essentially unchanged from the project as it was described in the Draft EIR of October 15, 2021, except that the Project Description has been changed as a result of compliance with the Ordinance and the utility plans have been refined.

The Revised and Recirculated EIR will describe changes to the October 15, 2021 Draft EIR's description of the environmental effects, mitigation measures and alternatives resulting from that modification of the Project Description. These changes will be discussed in revised versions of all chapters of the Draft EIR.

1. Project Location

The South Stockton Commerce Center Project site (proposed Project site) is comprised of 422.22 acres located in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport. The Project site is located west of the 99 Frontage Road and State Route (SR) 99 and east of Airport Way. The Union Pacific Railroad (UPRR) extends south from Airport Way bisecting the western portion of the site. French Camp Slough extends southeast from Airport Way across the southwestern portion of the site. It continues east under the UPRR and then south across the southwestern portion of the site, before continuing south off-site. Additional project location details may be found in Chapter 2.0 of the October 15, 2021 Draft EIR and in the attached figures.

2. Project Description

The SSCC Project proposes a Tentative Map for the 422.22-acre site to create 13 development lots, two basin lots, one park lot, one open space lot, one sewer pump station lot, and off-site sewer improvements. Of the 13 development lots, 12 will be for development of a mix of industrial uses and one will be for development of commercial uses. Although a Site Plan is not currently proposed, for planning purposes a conceptual site plan was prepared to establish a target Floor Area Ratio (FAR) that was used to generate the maximum square footage of building area for the Tentative Map and for purposes of environmental review. As described in Chapter 2.0, Project Description, the Project would result in a maximum of 6,091,551 square feet of industrial type land uses, 140,350 square feet of commercial land uses, 54 acres of open space, 41 acres of public facilities, and 18 acres of right-of-way circulation improvements. Additional project description detail is provided in Chapter 2.0 of the October 15, 2021 Draft EIR.

At the December 12, 2023 Stockton City Council meeting, the Council adopted a Stockton Municipal Code Title 16 Ordinance establishing new logistics warehouse development standards. These standards became effective on January 11, 2024. The Ordinance is referred to as the City's Warehouse Ordinance. Additionally, the proposed Project utility improvements have been refined since the prior (2021) public comment period. This Recirculated Draft EIR was prepared to reflect the changes in the Project Description resulting from compliance with the Ordinance and

the refined utility plans. The Project Description chapter and the other sections herein have been updated to reflect such Project compliance with the Ordinance, as well as other Project refinements (such as utility plans, construction schedule, etc.).

The description of the proposed project in Chapter 2.0 of the Draft EIR is largely unchanged from the October 15, 2021 Draft EIR. The potential environmental effects of the project, which are largely dependent on the maximum potential size and layout of buildings and site improvements as described in the Draft EIR will be unaffected. Since the Draft EIR was published, a number of related conditions have changed, including the City's adoption of its Warehouse Ordinance in 2023 and an amendment to that ordinance in 2024. Additional background information related to the formerly proposed Mitigation Measures and adoption of the Warehouse Ordinance will be provided in detail in the Revised and Recirculated EIR.

3. Issues to be Analyzed in the Revised and Recirculated EIR

The applicant's 2020 submittal of an application for approval of the proposed project triggered the Lead Agency's (City of Stockton) determination that an Environmental Impact Report (EIR) would be prepared for the project. At the time, a Notice of Preparation was prepared and circulated that described the expected contents of the October 15, 2021 Draft EIR. Both the NOP and the October 15, 2021 Draft EIR are available for review on the City's website.

The Revised and Recirculated EIR will consider any changes to the potential environmental effects of the proposed project, along with any changes to mitigation measures and alternatives to the project as described in the October 15, 2021 Draft EIR that could result from compliance with the City's Warehouse Ordinance.

Environmental concerns that will be addressed in the various chapters of the Revised and Recirculated EIR are summarized on a chapter by basis below. It is anticipated that changes to the October 15, 2021 Draft EIR will be concentrated in Chapter 3.3 Air Quality and Chapter 3.7 Greenhouse Gases, Climate Change and Energy and that changes to other chapters will be minimal. Other October 15, 2021 Draft EIR chapters will be screened to identify changes in the environmental impact analysis and recommended mitigation measures that could result from compliance with the City's Warehouse Ordinance. Any substantive resulting changes to the Draft EIR will be described in the Revised and Recirculated EIR.

Aesthetics and Visual Resources

No substantive changes to the October 15, 2021 Draft EIR are anticipated. The Draft EIR adequately considered the potential effects of the project on aesthetics and visual resources.

Agricultural Resources

No substantive changes to the October 15, 2021 Draft EIR are anticipated. The Draft EIR adequately considered the potential effects of the project on agricultural resources.

Air Quality

Substantive changes to Chapter 3.3 of the October 15, 2021 Draft EIR are anticipated. The potential effects of the Stockton Warehouse Ordinance on air quality and air quality impacts will be evaluated and reported in the Revised and Recirculated EIR as appropriate. Chapter 3.3 will be modified and included in the Revised and Recirculated EIR with the following changes:

Review of Environmental Setting information, update as required Review of Regulatory Setting, update as required

Review assumptions, adjustments and revised results of air emissions modeling, if any

Consider the mitigating effects of the adopted Stockton Warehouse Ordinance requirements as they pertain to air quality impacts

Identify revised mitigation measures needed to address the Stockton Warehouse Ordinance

Biological Resources

No substantive changes to the October 15, 2021 Draft EIR are anticipated. The Draft EIR adequately considered the potential biological effects of the project.

Cultural and Tribal Cultural Resources

No substantive changes to the October 15, 2021 Draft EIR are anticipated. The Draft EIR adequately considered the potential cultural resource effects of the project.

Geology and Soils

No substantive changes to the October 15, 2021 Draft EIR are anticipated. The Draft EIR adequately considered the potential geologic, soils and paleontological effects of the project.

Greenhouse Gases, Climate Change and Energy

The potential effects of the Stockton Warehouse Ordinance on GHGs and energy and associated impacts will be evaluated and reported in the Revised and Recirculated EIR as appropriate. Chapter 3.7, Greenhouse Gases, Climate Change and Energy will be modified and included in the Revised and Recirculated EIR with any changes resulting from the following considerations:

Review of Environmental Setting information, update as required Review of Regulatory Setting, update as required

Review assumptions, adjustments and results of greenhouse gas emissions modeling

Consider the mitigating effects of the adopted Stockton Warehouse Ordinance requirements as they pertain to greenhouse gas impacts

Identify revised mitigation measures needed to address the Stockton Warehouse Ordinance

Hazards and Hazardous Materials

No substantive changes to the October 15, 2021 Draft EIR are anticipated. The Draft EIR adequately considered the potential hazards and hazardous materials effects of the project.

Hydrology and Water Quality

No substantive changes to the October 15, 2021 Draft EIR are anticipated. The Draft EIR adequately considered the potential hydrology and water quality effects of the project.

Land Use and Population

No substantive changes to the October 15, 2021 Draft EIR are anticipated. The Draft EIR adequately considered the potential land use, population and housing effects of the project.

Noise

No substantive changes to the October 15, 2021 Draft EIR are anticipated. The Draft EIR adequately considered the potential noise effects of the project. The potential effects of the Stockton Warehouse Ordinance on noise and noise impacts will be evaluated and reported in the Revised and Recirculated EIR as appropriate.

Public Services and Recreation

No substantive changes to the October 15, 2021 Draft EIR are anticipated. The Draft EIR adequately considered the potential public services and recreation effects of the project.

Transportation and Circulation

No substantive changes to the October 15, 2021 Draft EIR are anticipated. The Draft EIR adequately considered the potential transportation effects of the project. The potential effects of the Stockton Warehouse Ordinance on noise and noise impacts will be evaluated and reported in the Revised and Recirculated EIR as appropriate.

Utilities

No substantive changes to the October 15, 2021 Draft EIR are anticipated. The Draft EIR adequately considered the potential utilities and services effects of the project. Updates to these planned services or construction details are emerging from refined utility plans. This information will be reviewed and disclosed in the Revised and Recirculated EIR as appropriate.

Cumulative Impacts

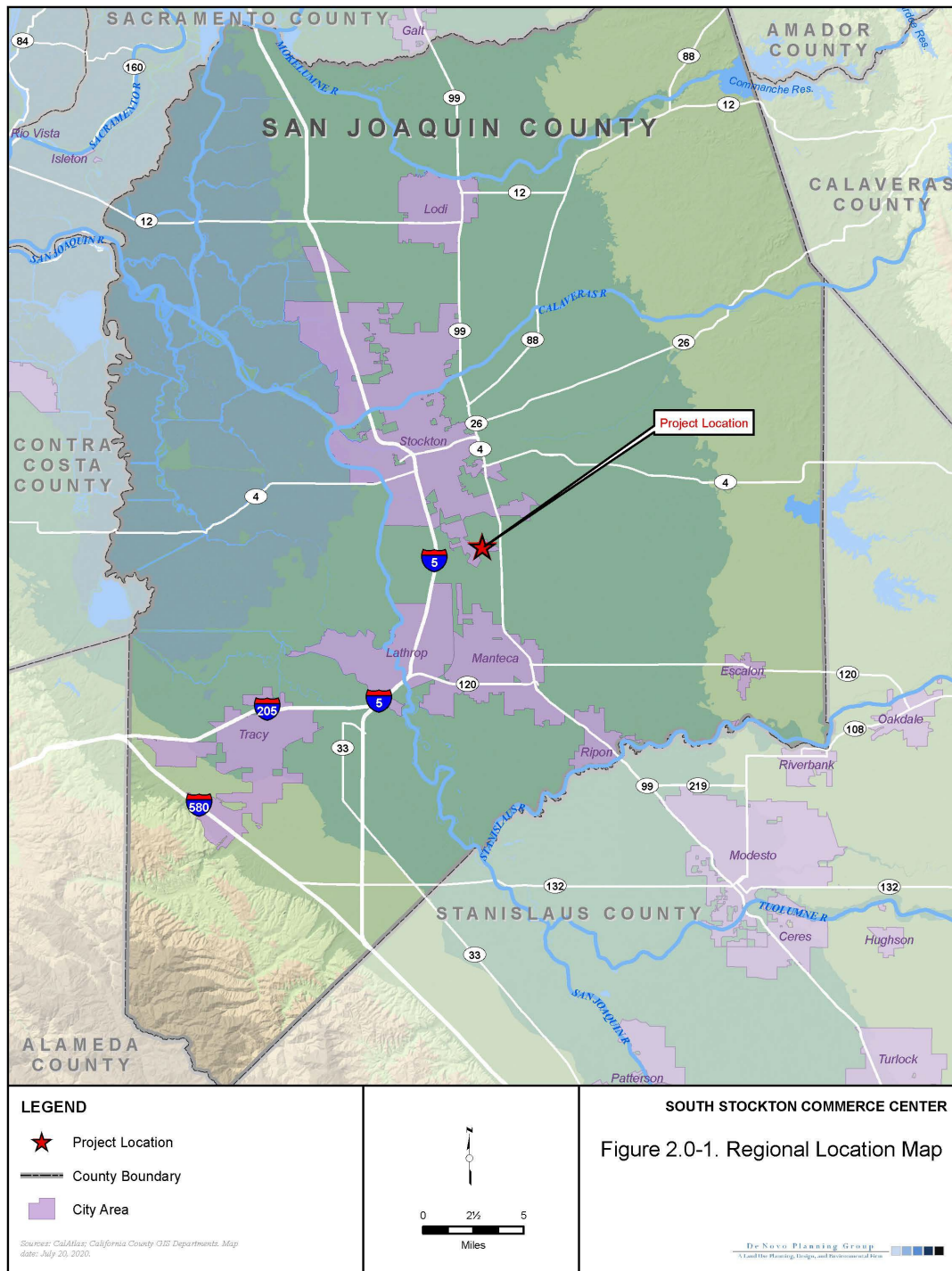
The Revised and Recirculated EIR will reconsider the potential cumulative impacts of the project in all the above-listed resource areas.

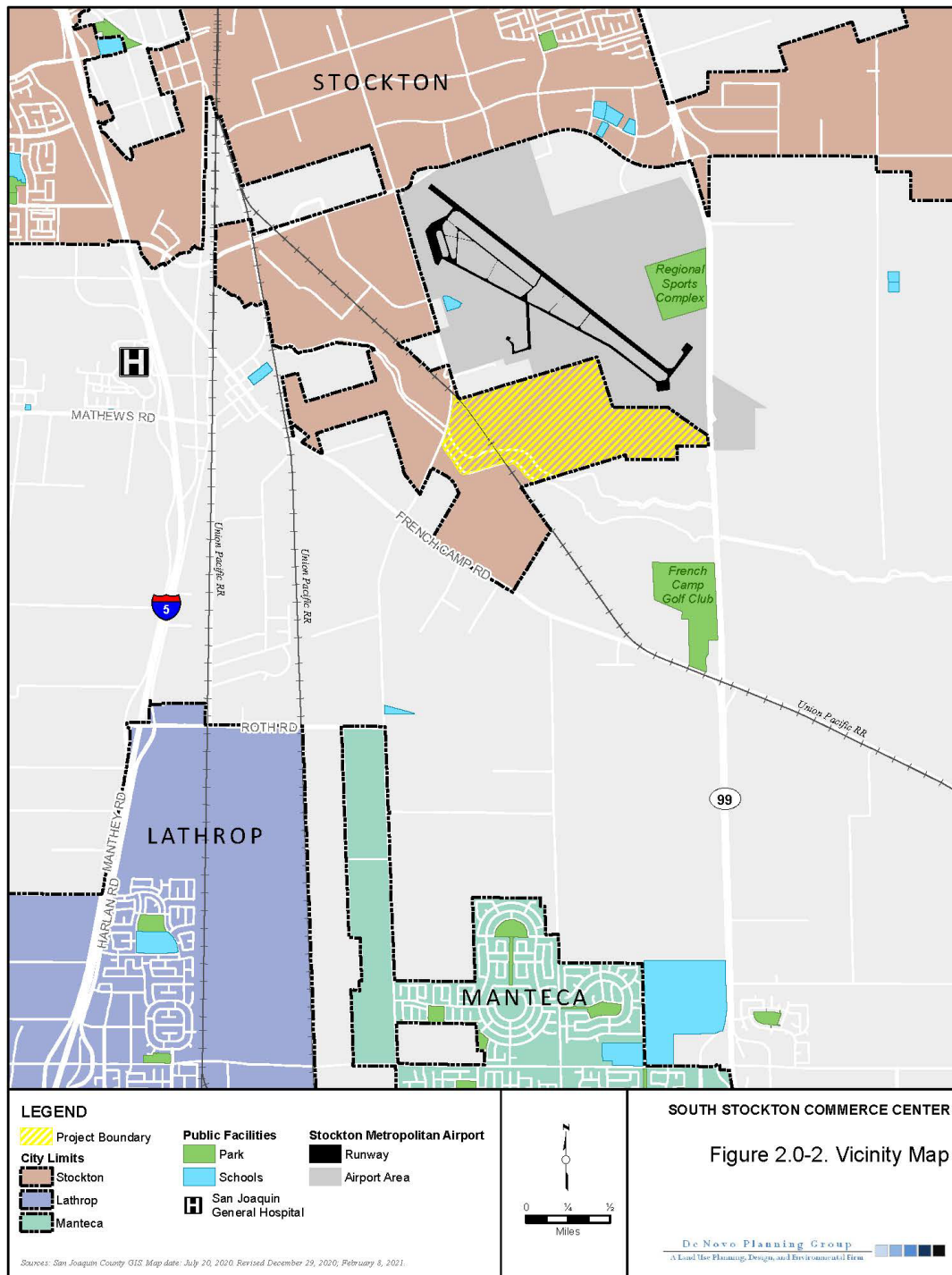
Alternatives to the Proposed Project

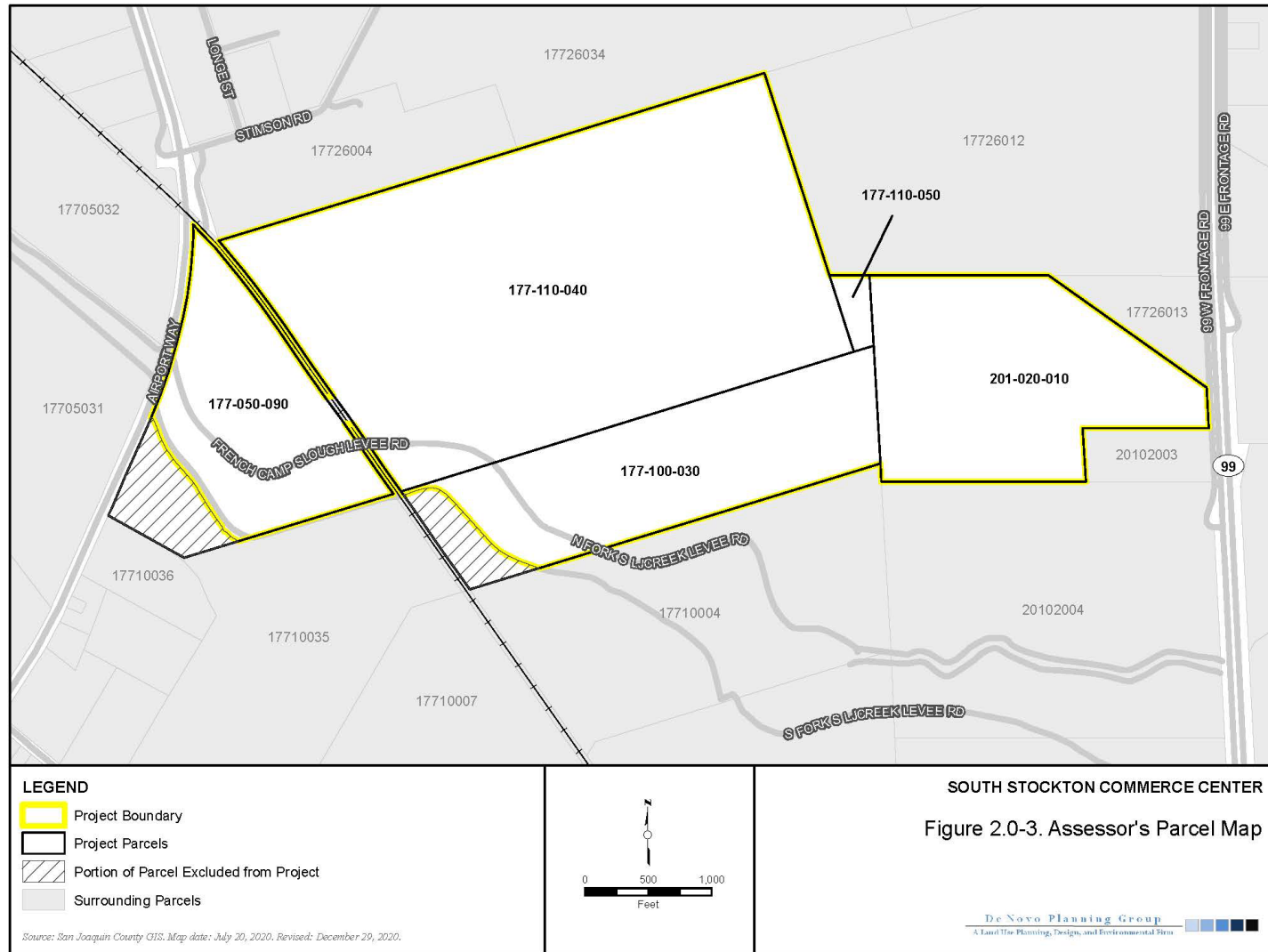
The Revised and Recirculated EIR will evaluate any changes to the October 15, 2021 Draft EIR's comparative description of alternatives to the proposed project that may be warranted based on the foregoing analyses.

Growth-Inducing Impacts

The Revised and Recirculated EIR will revisit and summarize the environmental impacts of the project considered significant and unavoidable and describe any changes to the irreversible environmental commitments identified in the October 15, 2021 Draft EIR. The Revised and Recirculated EIR will reconsider the potential growth-inducing impacts of the project and report any substantive changes.












Legend

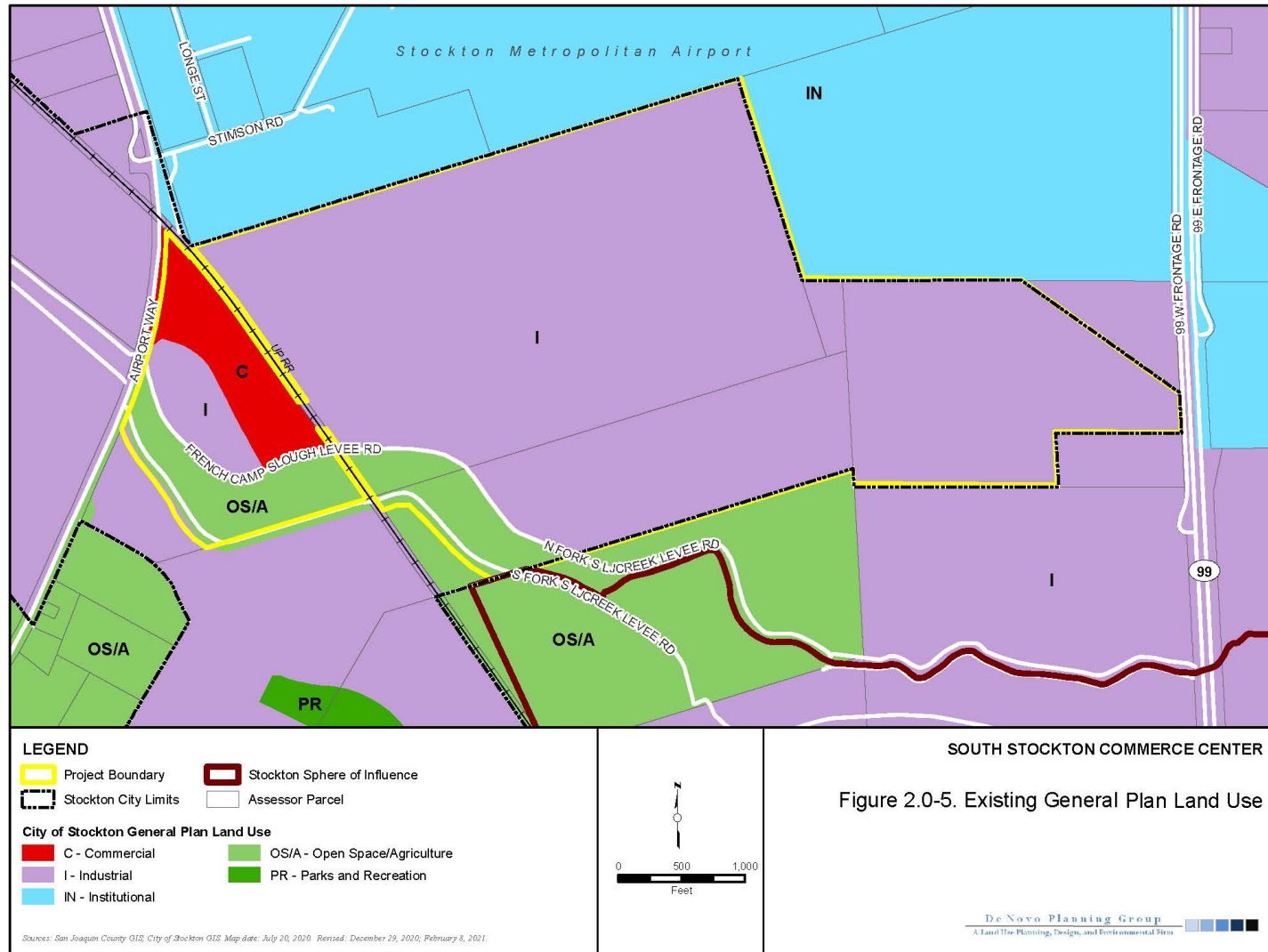
-  Project Area
-  Stockton City Limits
-  Offsite Sewer Line Improvements

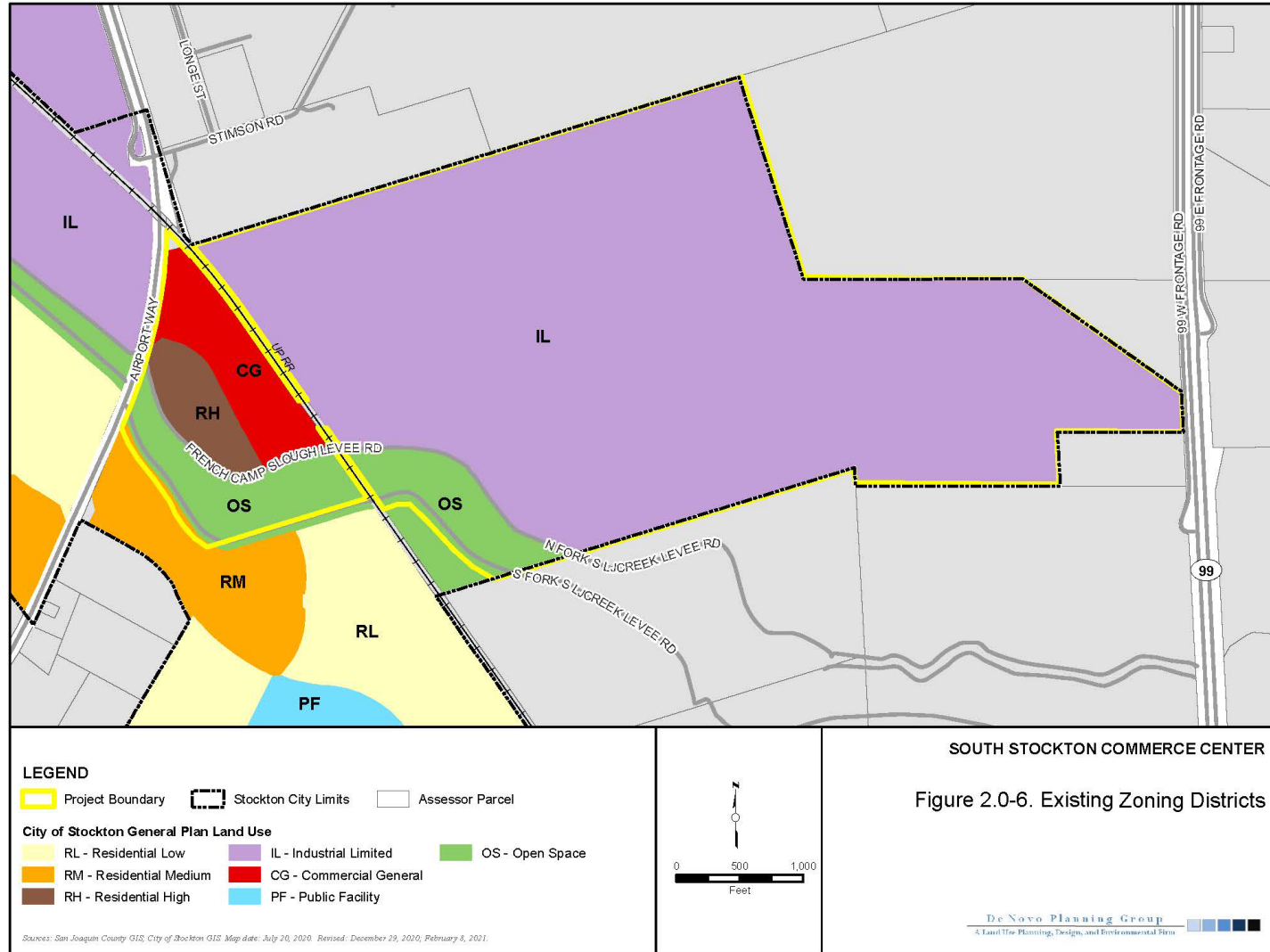
SOUTH STOCKTON COMMERCE CENTER

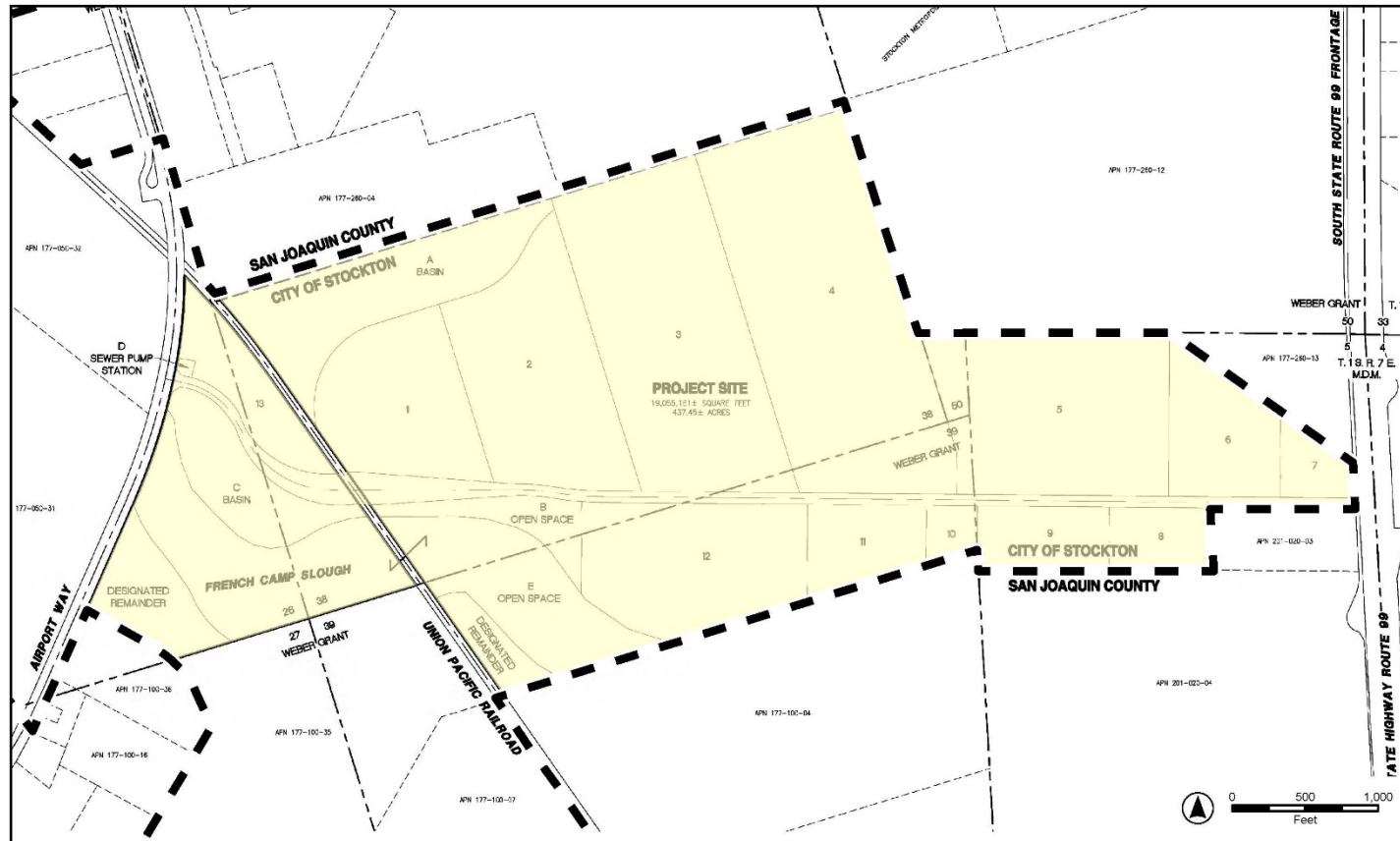
Figure 2.0-4. Aerial View of Project
with Offsite Improvements

Sources: Northstar Engineering Group, 8/2/2021; ArcGIS Online
World Imagery Service. Map date: February 16, 2024.

De Novo Planning Group
A local life planning, design, and transportation firm





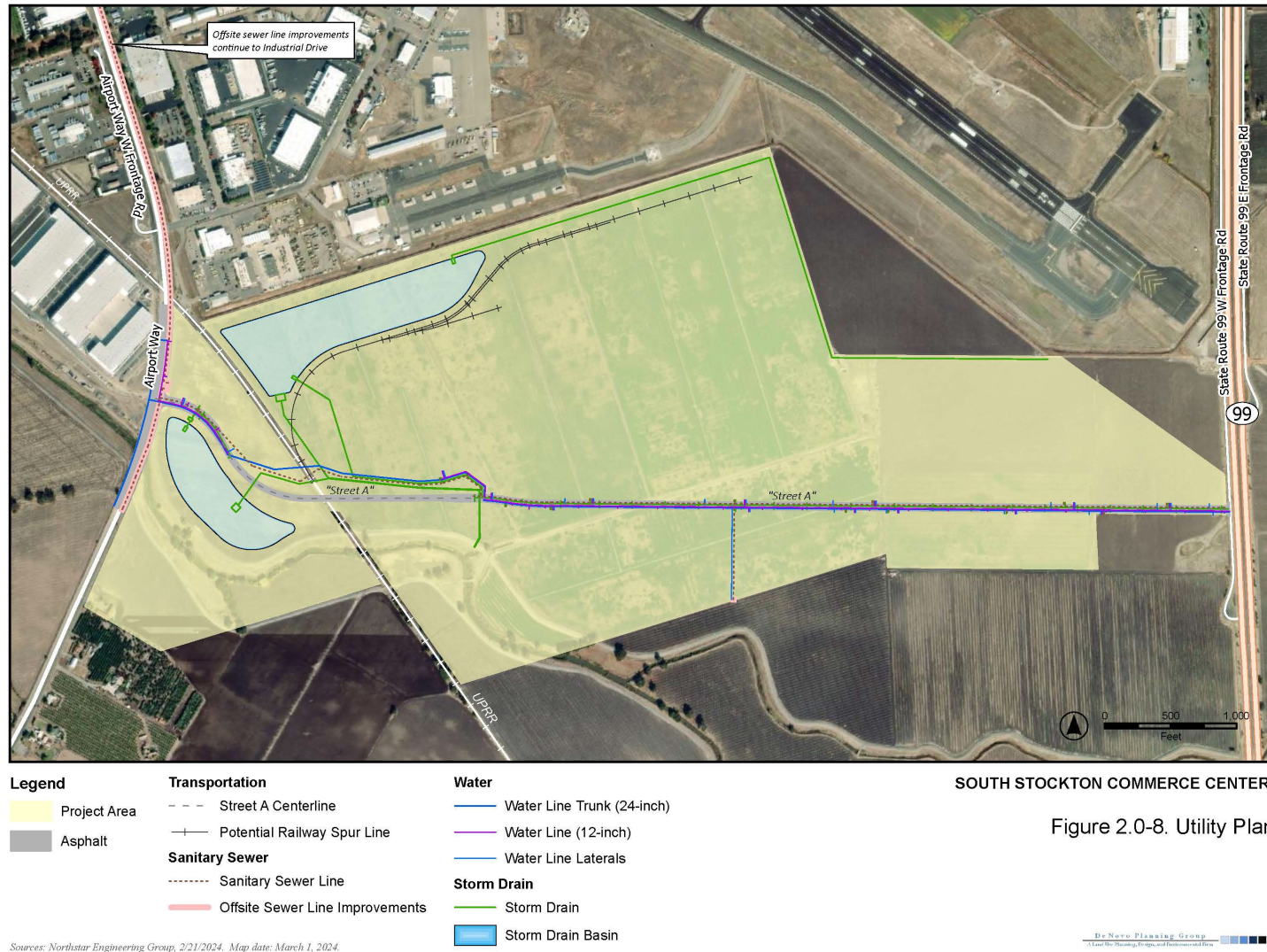


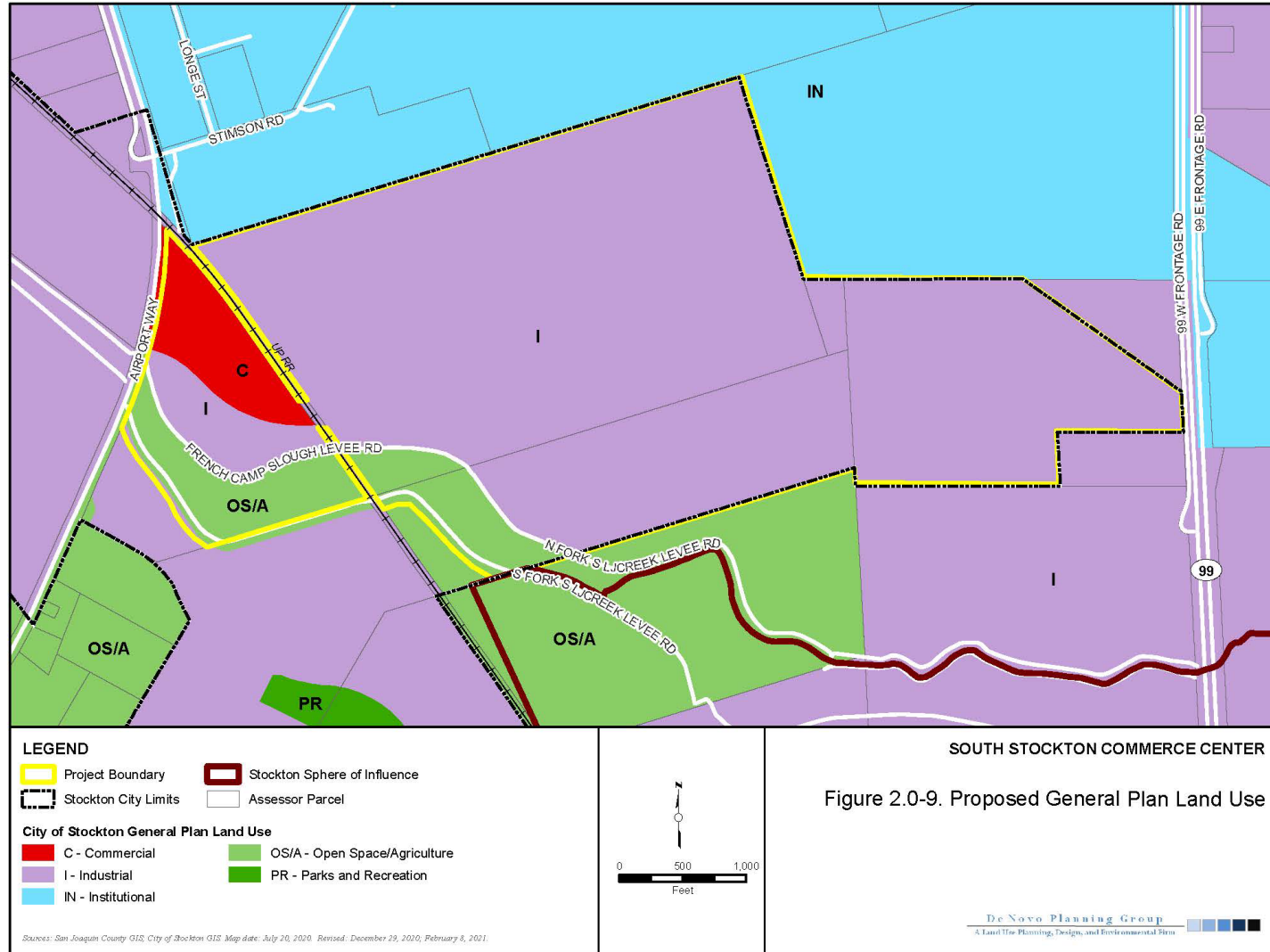
Legend

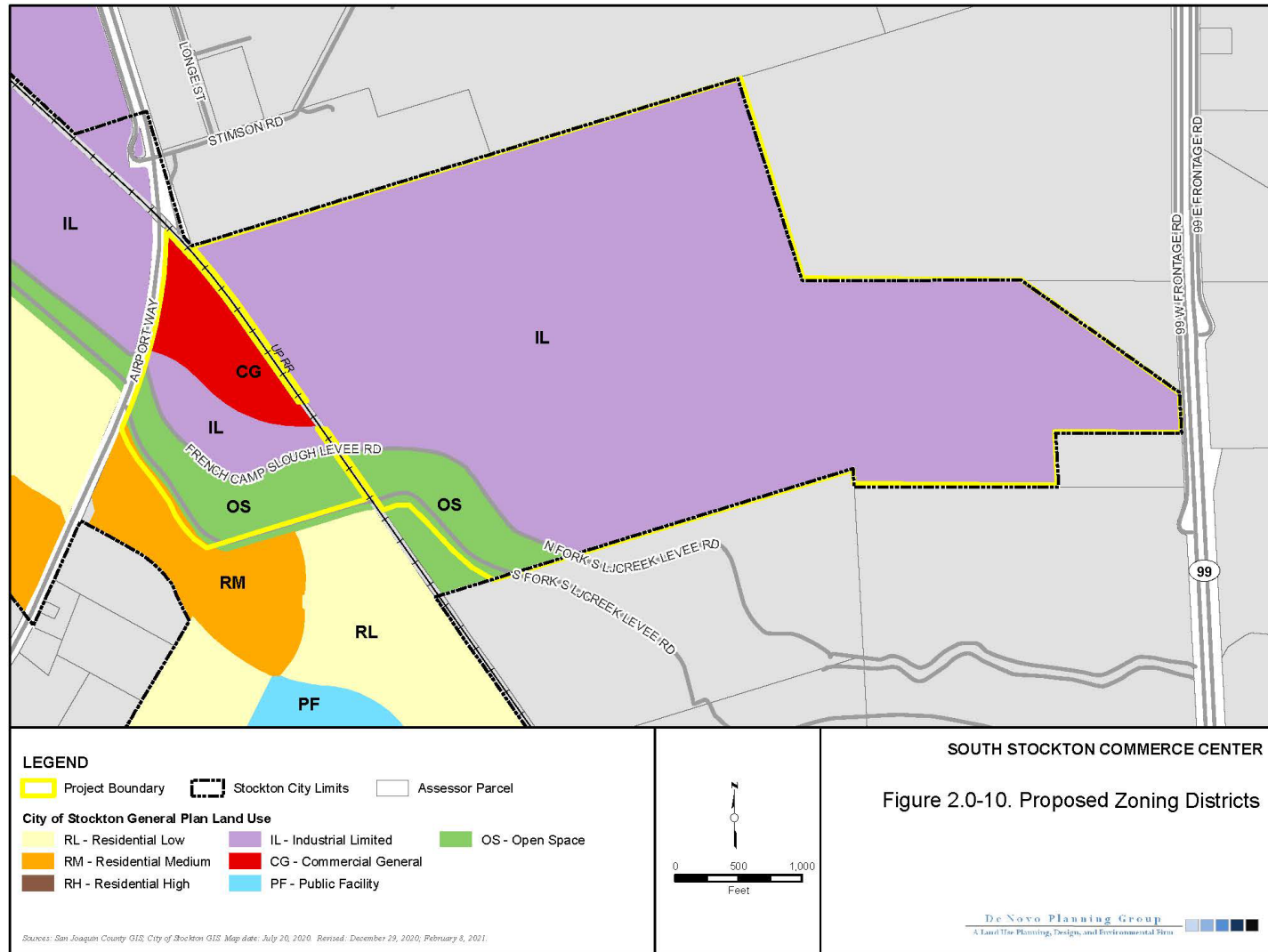
- Project Area
- Stockton City Limits

SOUTH STOCKTON COMMERCE CENTER

Figure 2.0-7. Proposed Tentative Map







P: (626) 314-3821
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E: info@mitshtsailaw.com



139 South Hudson Avenue
Suite 200
Pasadena, California 91101

VIA E-MAIL

September 24, 2024

Nicole Moore, Contract Planner
City of Stockton
Community Development Department
345 N. El Dorado Street
Stockton, CA 95202
Em: Nicole.moore.ctr@stocktonca.gov

RE: City of Stockton's South Stockton Commerce Center Project Scoping Meeting (SCH#: 2020090561).

Dear Nicole Moore,

On behalf of Carpenters Local Union 152 (“**Local 152**”), my Office is submitting these comments for the City of Stockton’s (“**City**”) September 24, 2024 Scoping Meeting for the South Stockton Commerce Center P20-0024 Project (“**Project**”).

Local 152 is a labor union that represents thousands of union carpenters in the San Joaquin County, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects.

Individual members of Local 152 live, work, and recreate in the City and surrounding communities and would be directly affected by the Project’s environmental impacts.

Local 152 expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

Local 152 incorporates by reference all comments raising issues regarding the environmental documents submitted prior to approval of the Project. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party

who has objected to the project’s environmental documentation may assert any issue timely raised by other parties).

Moreover, Local 152 requests that the the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law (“**Planning and Zoning Law**”) (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency’s governing body.

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY’S ECONOMIC DEVELOPMENT AND ENVIRONMENT.

The City should require the Project to be built by contractors who participate in a Joint Labor-Management Apprenticeship Program approved by the State of California and make a commitment to hiring a local workforce.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

[A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

[L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California’s workforce

can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.¹

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.²

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.³

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled ("VMT"). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.⁴ Some municipalities have even tied local hire and other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

¹ California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* <https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf>.

² South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10>.

³ California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* <https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf>

⁴ Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* <http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf>.

In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 (“**AB2011**”). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts.

Sincerely,



Naira Soghatyan
Attorneys for Carpenters Local Union #152

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

EXHIBIT A



Technical Consultation, Data Analysis and
Litigation Support for the Environment

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Santa Monica, CA 90405

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(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."¹ CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.²

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.³

¹ "California Emissions Estimator Model." CAPCOA, 2017, available at: <http://www.aqmd.gov/caleemod/home>.

² "California Emissions Estimator Model." CAPCOA, 2017, available at: <http://www.aqmd.gov/caleemod/home>.

³ "CalEEMod User's Guide." CAPCOA, November 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled (“VMT”) associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.⁴

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

$$\text{“VMT}_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i) _n$$

Where:

n = Number of land uses being modeled.”⁵

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

$$\text{“Emissions}_{\text{pollutant}} = \text{VMT} * \text{EF}_{\text{running,pollutant}}$$

Where:

$\text{Emissions}_{\text{pollutant}}$ = emissions from vehicle running for each pollutant

VMT = vehicle miles traveled

$\text{EF}_{\text{running,pollutant}}$ = emission factor for running emissions.”⁶

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.⁷ In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act (“CEQA”) requires that such changes be justified by substantial evidence.⁸ The default number of construction-related worker trips is calculated by multiplying the

⁴ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.

⁵ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.

⁶ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.

⁷ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

⁸ CalEEMod User Guide, available at: <http://www.caleemod.com/>, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.⁹ Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively.”¹⁰ Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.¹¹ The operational home-to-work vehicle trip lengths are:

“[B]ased on the location and urbanization selected on the project characteristic screen. These values were supplied by the air districts or use a default average for the state. Each district (or county) also assigns trip lengths for urban and rural settings” (emphasis added).¹²

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).¹³

Worker Trip Length by Air Basin		
Air Basin	Rural (miles)	Urban (miles)
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	16.47	11.17
Minimum	10.80	10.80
Maximum	19.80	14.70
Range	9.00	3.90

⁹ “CalEEMod User’s Guide.” CAPCOA, November 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

¹⁰ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.

¹¹ “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.

¹² “Appendix A Calculation Details for CalEEMod.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.

¹³ “Appendix D Default Data Tables.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8- miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7- miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan (“Project”) located in the City of Claremont (“City”). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.¹⁴ In an effort to evaluate the potential for a local hire provision to reduce the Project’s construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO ₂ e)	3,623
Amortized Construction GHG Emissions (MT CO ₂ e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO ₂ e)	3,024
Amortized Construction GHG Emissions (MT CO ₂ e/year)	100.80
% Decrease in Construction-related GHG Emissions	17%

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project’s urbanization level and location.

¹⁴ “Appendix D Default Data Tables.” CAPCOA, October 2017, available at: http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

A handwritten signature in blue ink, appearing to read "M Hagemann".

Matt Hagemann, P.G., C.Hg.

A handwritten signature in blue ink, appearing to read "Paul Rosenfeld".

Paul E. Rosenfeld, Ph.D.

Attachment A

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	Rural (miles)	Urban (miles)
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	16.47	11.17
Minimum	10.80	10.80
Maximum	19.80	14.70
Range	9.00	3.90

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

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tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	4.1619	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187

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2.1 Overall Construction**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	4.1619	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2021	11-30-2021	1.4103	1.4103
2	12-1-2021	2-28-2022	1.3613	1.3613
3	3-1-2022	5-31-2022	1.1985	1.1985
4	6-1-2022	8-31-2022	1.1921	1.1921
5	9-1-2022	11-30-2022	1.1918	1.1918
6	12-1-2022	2-28-2023	1.0774	1.0774
7	3-1-2023	5-31-2023	1.0320	1.0320
8	6-1-2023	8-31-2023	1.0260	1.0260

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9	9-1-2023	11-30-2023	1.0265	1.0265
10	12-1-2023	2-29-2024	2.8857	2.8857
11	3-1-2024	5-31-2024	1.6207	1.6207
		Highest	2.8857	2.8857

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	6.8692	9.5223	30.3407	0.0914	7.7979	0.2260	8.0240	2.0895	0.2219	2.3114	236.9712	12,294.1807	12,531.1519	15.7904	0.1260	12,963.4751

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	6.8692	9.5223	30.3407	0.0914	7.7979	0.2260	8.0240	2.0895	0.2219	2.3114	236.9712	12,294.1807	12,531.1519	15.7904	0.1260	12,963.4751

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	0.0475	0.4716	0.3235	5.8000e-004	0.0496	0.0233	0.0729	7.5100e-003	0.0216	0.0291	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601

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3.2 Demolition - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	2.9000e-003	0.0641	0.0233	2.0000e-004	6.4100e-003	2.1000e-004	6.6200e-003	1.7300e-003	2.0000e-004	1.9300e-003	0.0000	19.6816	19.6816	1.2800e-003	0.0000	19.7136

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	0.0475	0.4716	0.3235	5.8000e-004	0.0496	0.0233	0.0729	7.5100e-003	0.0216	0.0291	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600

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3.2 Demolition - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	2.9000e-003	0.0641	0.0233	2.0000e-004	6.4100e-003	2.1000e-004	6.6200e-003	1.7300e-003	2.0000e-004	1.9300e-003	0.0000	19.6816	19.6816	1.2800e-003	0.0000	19.7136

3.3 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	0.0389	0.4050	0.2115	3.8000e-004	0.1807	0.0204	0.2011	0.0993	0.0188	0.1181	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061

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3.3 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	0.0389	0.4050	0.2115	3.8000e-004	0.1807	0.0204	0.2011	0.0993	0.0188	0.1181	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060

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3.3 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814

3.4 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	0.0796	0.8816	0.5867	1.1800e-003	0.1741	0.0377	0.2118	0.0693	0.0347	0.1040	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776

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3.4 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	0.0796	0.8816	0.5867	1.1800e-003	0.1741	0.0377	0.2118	0.0693	0.0347	0.1040	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775

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3.4 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607

3.4 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	0.0127	0.1360	0.1017	2.2000e-004	0.0807	5.7200e-003	0.0865	0.0180	5.2600e-003	0.0233	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414

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3.4 Grading - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	0.0127	0.1360	0.1017	2.2000e-004	0.0807	5.7200e-003	0.0865	0.0180	5.2600e-003	0.0233	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414

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3.4 Grading - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881

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3.5 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	0.4616	2.0027	3.9885	0.0152	1.2243	0.0121	1.2363	0.3278	0.0112	0.3390	0.0000	1,408.7952	1,408.7952	0.0530	0.0000	1,410.1208

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877

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3.5 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	0.4616	2.0027	3.9885	0.0152	1.2243	0.0121	1.2363	0.3278	0.0112	0.3390	0.0000	1,408.7952	1,408.7952	0.0530	0.0000	1,410.1208

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814

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3.5 Building Construction - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	0.4135	1.5218	3.5707	0.0144	1.1953	9.8700e-003	1.2051	0.3200	9.1400e-003	0.3292	0.0000	1,327.3369	1,327.3369	0.0462	0.0000	1,328.4916

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811

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3.5 Building Construction - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	0.4135	1.5218	3.5707	0.0144	1.1953	9.8700e-003	1.2051	0.3200	9.1400e-003	0.3292	0.0000	1,327.3369	1,327.3369	0.0462	0.0000	1,328.4916

3.6 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227

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3.6 Paving - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227

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3.6 Paving - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968

3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073

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3.6 Paving - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073

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3.6 Paving - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706

3.7 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	4.1404	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745

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3.7 Architectural Coating - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	4.1404	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745

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3.7 Architectural Coating - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

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Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

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5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4268	1,383.4268	0.0265	0.0254	1,391.6478

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4268	1,383.4268	0.0265	0.0254	1,391.6478

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		2,512.6465	0.1037	0.0215	2,521.6356

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		2,512.6465	0.1037	0.0215	2,521.6356

6.0 Area Detail**6.1 Mitigation Measures Area**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	5.1437	0.2950	10.3804	1.6600e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	5.1437	0.2950	10.3804	1.6600e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

7.0 Water Detail**7.1 Mitigation Measures Water**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		585.8052	3.0183	0.0755	683.7567

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		585.8052	3.0183	0.0755	683.7567

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		207.8079	12.2811	0.0000	514.8354

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8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		207.8079	12.2811	0.0000	514.8354

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

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tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.797 4	6,234.797 4	1.9495	0.0000	6,283.535 2
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.56 74	15,251.56 74	1.9503	0.0000	15,278.52 88
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.52 69	14,807.52 69	1.0250	0.0000	14,833.15 21
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.398 9	2,361.398 9	0.7177	0.0000	2,379.342 1
Maximum	237.1630	46.4588	49.5629	0.1517	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	15,251.56 74	15,251.56 74	1.9503	0.0000	15,278.52 88

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2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	237.1630	46.4588	49.5629	0.1517	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288

[illegible]

Mitigated Operational

Category	lb/day												lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Area	30.5020	15.0496	88.4430	0.0944	1.5974	1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59	50	18,148.59	0.4874	0.3300	18,259.11
Energy	0.7660	6.7462	4.2573	0.0418	0.5292	0.5292	0.5292		0.5292	0.5292		8,355.983	2	8,355.983	0.1602	0.1532	8,405.638
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60	34	50,306.60	2.1807		50,361.12
Total	41.1168	67.2262	207.5497	0.6278	45.9592	2.4626	48.4217	12.2950	2.4385	14.7336	0.0000	76,811.18	16	76,811.18	2.8282	0.4832	77,025.87

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 112.5****Acres of Paving: 0****Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	3.1651	31.4407	21.5650	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419		3,747.9449	3,747.9449	1.0549		3,774.3174

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3.2 Demolition - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	0.1916	4.1394	1.5644	0.0136	0.4346	0.0139	0.4485	0.1176	0.0133	0.1309		1,463.0568	1,463.0568	0.0927		1,465.3750

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	3.1651	31.4407	21.5650	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174

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3.2 Demolition - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.241 3	1,292.241 3	0.0877		1,294.433 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	0.1916	4.1394	1.5644	0.0136	0.4346	0.0139	0.4485	0.1176	0.0133	0.1309		1,463.056 8	1,463.056 8	0.0927		1,465.375 0

3.3 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.656 9	3,685.656 9	1.1920		3,715.457 3
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.656 9	3,685.656 9	1.1920		3,715.457 3

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3.3 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

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3.3 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296

3.4 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055,6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230		6,007.0434	6,007.0434	1.9428		6,055,6134

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3.4 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055,6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230	0.0000	6,007.0434	6,007.0434	1.9428		6,055,6134

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217

3.4 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006		6,011.4105	6,011.4105	1.9442		6,060.0158

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.685 7	8,800.685 7	0.2429		8,806.758 2
Total	3.6242	15.3350	33.1995	0.1247	9.8688	0.0949	9.9637	2.6381	0.0883	2.7263		12,697.23 39	12,697.23 39	0.4665		12,708.89 66

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.685 7	8,800.685 7	0.2429		8,806.758 2
Total	3.6242	15.3350	33.1995	0.1247	9.8688	0.0949	9.9637	2.6381	0.0883	2.7263		12,697.23 39	12,697.23 39	0.4665		12,708.89 66

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.440 8	8,478.440 8	0.2190		8,483.916 0
Total	3.3229	11.9468	30.5127	0.1203	9.8688	0.0797	9.9485	2.6381	0.0738	2.7118		12,252.31 70	12,252.31 70	0.4172		12,262.74 60

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.440 8	8,478.440 8	0.2190		8,483.916 0
Total	3.3229	11.9468	30.5127	0.1203	9.8688	0.0797	9.9485	2.6381	0.0738	2.7118		12,252.31 70	12,252.31 70	0.4172		12,262.74 60

3.6 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748

3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458

3.7 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	236.5923	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.085 2	1,641.085 2	0.0401		1,642.088 6
Total	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.085 2	1,641.085 2	0.0401		1,642.088 6

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	236.5923	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.085 2	1,641.085 2	0.0401		1,642.088 6
Total	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.085 2	1,641.085 2	0.0401		1,642.088 6

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		0.7660	6.7463	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		0.7660	6.7463	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

6.0 Area Detail**6.1 Mitigation Measures Area**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	237.2328	46.4651	47.3319	0.1455	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	237.2328	46.4651	47.3319	0.1455	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663

[illegible]

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.2 Overall Operational

Unmitigated Operational

	Category	lb/day										lb/day									
		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e				
Area	30.5020	15.0496	88.4430	0.0944	1.5974	1.5974	1.5974	1.5974	1.5974	1.5974	1.5974	0.0000	18,148.59	18,148.59	0.4874	0.3300	18,259.11	92	18,259.11	92	18,259.11
Energy	0.7660	6.7462	4.2573	0.0418	0.5292	0.5292	0.5292	0.5292	0.5292	0.5292	0.5292	8,355.983	8,355.983	8,355.983	0.1602	0.1532	8,405.638	7	8,405.638	7	8,405.638
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083	47,917.80	47,917.80	47,917.80	2.1953		47,972.68	39	47,972.68	39	47,972.68
Total	40.7912	67.7872	202.7424	0.6043	45.9592	45.9592	2.4640	48.4231	12.2950	2.4399	14.7349	0.0000	74,422.37	74,422.37	2.8429	0.4832	74,637.44	17	74,637.44	17	74,637.44

Mitigated Operational

	Category	lb/day										lb/day									
		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e				
Area	30.5020	15.0496	88.4430	0.0944	1.5974	1.5974	1.5974	1.5974	1.5974	1.5974	1.5974	0.0000	18,148.59	18,148.59	0.4874	0.3300	18,259.11	92	18,259.11	92	18,259.11
Energy	0.7660	6.7462	4.2573	0.0418	0.5292	0.5292	0.5292	0.5292	0.5292	0.5292	0.5292	8,355.983	8,355.983	8,355.983	0.1602	0.1532	8,405.638	7	8,405.638	7	8,405.638
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083	47,917.80	47,917.80	47,917.80	2.1953		47,972.68	39	47,972.68	39	47,972.68
Total	40.7912	67.7872	202.7424	0.6043	45.9592	45.9592	2.4640	48.4231	12.2950	2.4399	14.7349	0.0000	74,422.37	74,422.37	2.8429	0.4832	74,637.44	17	74,637.44	17	74,637.44

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	3.1651	31.4407	21.5650	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419		3,747.9449	3,747.9449	1.0549		3,774.3174

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.855 5	1,269.855 5	0.0908		1,272.125 2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	0.2019	4.1943	1.5706	0.0133	0.4346	0.0141	0.4487	0.1176	0.0135	0.1311		1,430.693 2	1,430.693 2	0.0955		1,433.081 2

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	3.1651	31.4407	21.5650	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.855 5	1,269.855 5	0.0908		1,272.125 2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	0.2019	4.1943	1.5706	0.0133	0.4346	0.0141	0.4487	0.1176	0.0135	0.1311		1,430.693 2	1,430.693 2	0.0955		1,433.081 2

3.3 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.656 9	3,685.656 9	1.1920		3,715.457 3
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.656 9	3,685.656 9	1.1920		3,715.457 3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.3 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.3 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472

3.4 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055,6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230		6,007.0434	6,007.0434	1.9428		6,055,6134

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055,6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230	0.0000	6,007.0434	6,007.0434	1.9428		6,055,6134

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080

3.4 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006		6,011.4105	6,011.4105	1.9442		6,060.0158

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	4.0156	15.5266	30.9685	0.1186	9.8688	0.0957	9.9645	2.6381	0.0891	2.7271		12,075.9763	12,075.9763	0.4663		12,087.6341

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	4.0156	15.5266	30.9685	0.1186	9.8688	0.0957	9.9645	2.6381	0.0891	2.7271		12,075.9763	12,075.9763	0.4663		12,087.6341

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	3.6978	12.1065	28.3496	0.1144	9.8688	0.0803	9.9491	2.6381	0.0743	2.7124		11,655.1325	11,655.1325	0.4151		11,665.5099

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	3.6978	12.1065	28.3496	0.1144	9.8688	0.0803	9.9491	2.6381	0.0743	2.7124		11,655.1325	11,655.1325	0.4151		11,665.5099

3.6 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043

3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587

3.7 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	236.5923	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.286 0	1,545.286 0	0.0376		1,546.226 2
Total	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.286 0	1,545.286 0	0.0376		1,546.226 2

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	236.5923	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.286 0	1,545.286 0	0.0376		1,546.226 2
Total	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.286 0	1,545.286 0	0.0376		1,546.226 2

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4,075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2,817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		0.7660	6.7463	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		0.7660	6.7463	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

6.0 Area Detail**6.1 Mitigation Measures Area**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

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tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	4.1592	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925

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2.1 Overall Construction**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	4.1592	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2021	11-30-2021	1.4091	1.4091
2	12-1-2021	2-28-2022	1.3329	1.3329
3	3-1-2022	5-31-2022	1.1499	1.1499
4	6-1-2022	8-31-2022	1.1457	1.1457
5	9-1-2022	11-30-2022	1.1415	1.1415
6	12-1-2022	2-28-2023	1.0278	1.0278
7	3-1-2023	5-31-2023	0.9868	0.9868
8	6-1-2023	8-31-2023	0.9831	0.9831

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9	9-1-2023	11-30-2023	0.9798	0.9798
10	12-1-2023	2-29-2024	2.8757	2.8757
11	3-1-2024	5-31-2024	1.6188	1.6188
		Highest	2.8757	2.8757

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	6.8692	9.5223	30.3407	0.0914	7.7979	0.2260	8.0240	2.0895	0.2219	2.3114	236.9712	12,294.1807	12,531.1519	15.7904	0.1260	12,963.4751

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	6.8692	9.5223	30.3407	0.0914	7.7979	0.2260	8.0240	2.0895	0.2219	2.3114	236.9712	12,294.1807	12,531.1519	15.7904	0.1260	12,963.4751

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	0.0475	0.4716	0.3235	5.8000e-004	0.0496	0.0233	0.0729	7.5100e-003	0.0216	0.0291	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601

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3.2 Demolition - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	2.6500e-003	0.0639	0.0209	2.0000e-004	5.6200e-003	2.0000e-004	5.8200e-003	1.5300e-003	1.9000e-004	1.7200e-003	0.0000	18.9847	18.9847	1.2600e-003	0.0000	19.0161

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	0.0475	0.4716	0.3235	5.8000e-004	0.0496	0.0233	0.0729	7.5100e-003	0.0216	0.0291	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600

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3.2 Demolition - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	2.6500e-003	0.0639	0.0209	2.0000e-004	5.6200e-003	2.0000e-004	5.8200e-003	1.5300e-003	1.9000e-004	1.7200e-003	0.0000	18.9847	18.9847	1.2600e-003	0.0000	19.0161

3.3 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	0.0389	0.4050	0.2115	3.8000e-004	0.1807	0.0204	0.2011	0.0993	0.0188	0.1181	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061

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3.3 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	0.0389	0.4050	0.2115	3.8000e-004	0.1807	0.0204	0.2011	0.0993	0.0188	0.1181	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060

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3.3 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234

3.4 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	0.0796	0.8816	0.5867	1.1800e-003	0.1741	0.0377	0.2118	0.0693	0.0347	0.1040	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776

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3.4 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	0.0796	0.8816	0.5867	1.1800e-003	0.1741	0.0377	0.2118	0.0693	0.0347	0.1040	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775

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3.4 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828

3.4 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	0.0127	0.1360	0.1017	2.2000e-004	0.0807	5.7200e-003	0.0865	0.0180	5.2600e-003	0.0233	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414

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3.4 Grading - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	0.0127	0.1360	0.1017	2.2000e-004	0.0807	5.7200e-003	0.0865	0.0180	5.2600e-003	0.0233	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414

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3.4 Grading - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881

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3.5 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	0.3578	1.9125	2.9812	0.0119	0.8696	9.4100e-003	0.8790	0.2336	8.7800e-003	0.2424	0.0000	1,105.9771	1,105.9771	0.0451	0.0000	1,107.1039

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877

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3.5 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	0.3578	1.9125	2.9812	0.0119	0.8696	9.4100e-003	0.8790	0.2336	8.7800e-003	0.2424	0.0000	1,105.9771	1,105.9771	0.0451	0.0000	1,107.1039

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814

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3.5 Building Construction - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	0.3177	1.4420	2.6646	0.0112	0.8490	7.3700e-003	0.8564	0.2281	6.8500e-003	0.2349	0.0000	1,042.5294	1,042.5294	0.0392	0.0000	1,043.5090

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811

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3.5 Building Construction - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	0.3177	1.4420	2.6646	0.0112	0.8490	7.3700e-003	0.8564	0.2281	6.8500e-003	0.2349	0.0000	1,042.5294	1,042.5294	0.0392	0.0000	1,043.5090

3.6 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227

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3.6 Paving - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227

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3.6 Paving - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160

3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073

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3.6 Paving - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073

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3.6 Paving - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100

3.7 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	4.1404	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745

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3.7 Architectural Coating - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	4.1404	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745

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3.7 Architectural Coating - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4,075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2,817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

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Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4268	1,383.4268	0.0265	0.0254	1,391.6478

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4268	1,383.4268	0.0265	0.0254	1,391.6478

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		2,512.6465	0.1037	0.0215	2,521.6356

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		2,512.6465	0.1037	0.0215	2,521.6356

6.0 Area Detail**6.1 Mitigation Measures Area**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	5.1437	0.2950	10.3804	1.6600e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	5.1437	0.2950	10.3804	1.6600e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

7.0 Water Detail**7.1 Mitigation Measures Water**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		585.8052	3.0183	0.0755	683.7567

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		585.8052	3.0183	0.0755	683.7567

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		207.8079	12.2811	0.0000	514.8354

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		207.8079	12.2811	0.0000	514.8354

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.416 6	6,163.416 6	1.9475	0.0000	6,212.103 9
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.44 03	12,493.44 03	1.9485	0.0000	12,518.57 07
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.48 90	12,150.48 90	0.9589	0.0000	12,174.46 15
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.180 8	2,313.180 8	0.7166	0.0000	2,331.095 6
Maximum	237.0219	46.4415	40.8776	0.1240	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	12,493.44 03	12,493.44 03	1.9485	0.0000	12,518.57 07

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	237.0219	46.4415	40.8776	0.1240	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707

[illegible]

Mitigated Operational

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	3.1651	31.4407	21.5650	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419		3,747.9449	3,747.9449	1.0549		3,774.3174

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.241 3	1,292.241 3	0.0877		1,294.433 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	0.1760	4.1265	1.3884	0.0131	0.3810	0.0135	0.3946	0.1034	0.0129	0.1163		1,409.521 2	1,409.521 2	0.0912		1,411.801 5

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	3.1651	31.4407	21.5650	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.2 Demolition - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.241 3	1,292.241 3	0.0877		1,294.433 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	0.1760	4.1265	1.3884	0.0131	0.3810	0.0135	0.3946	0.1034	0.0129	0.1163		1,409.521 2	1,409.521 2	0.0912		1,411.801 5

3.3 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.656 9	3,685.656 9	1.1920		3,715.457 3
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.656 9	3,685.656 9	1.1920		3,715.457 3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.3 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.3 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414

3.4 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055,6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230		6,007.0434	6,007.0434	1.9428		6,055,6134

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055,6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230	0.0000	6,007.0434	6,007.0434	1.9428		6,055,6134

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904

3.4 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006		6,011.4105	6,011.4105	1.9442		6,060.0158

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.4 Grading - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.558 5	6,042.558 5	0.1697		6,046.800 0
Total	2.8378	14.7106	24.5142	0.0971	7.0087	0.0741	7.0828	1.8799	0.0691	1.9490		9,939.106 7	9,939.106 7	0.3933		9,948.938 4

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.558 5	6,042.558 5	0.1697		6,046.800 0
Total	2.8378	14.7106	24.5142	0.0971	7.0087	0.0741	7.0828	1.8799	0.0691	1.9490		9,939.106 7	9,939.106 7	0.3933		9,948.938 4

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.402 8	5,821.402 8	0.1529		5,825.225 4
Total	2.5807	11.3809	22.5017	0.0936	7.0088	0.0595	7.0682	1.8799	0.0552	1.9350		9,595.279 0	9,595.279 0	0.3511		9,604.055 4

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.5 Building Construction - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.402 8	5,821.402 8	0.1529		5,825.225 4
Total	2.5807	11.3809	22.5017	0.0936	7.0088	0.0595	7.0682	1.8799	0.0552	1.9350		9,595.279 0	9,595.279 0	0.3511		9,604.055 4

3.6 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866

3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.6 Paving - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992

3.7 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	236.5923	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	236.5923	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

3.7 Architectural Coating - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		0.7660	6.7463	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		0.7660	6.7463	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

6.0 Area Detail**6.1 Mitigation Measures Area**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	237.0656	46.4460	39.6338	0.1195	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	237.0656	46.4460	39.6338	0.1195	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013

[illegible]

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

2.2 Overall Operational
Unmitigated Operational

	lb/day																	lb/day																
	Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e																	
Area		30.5020	15.0496	88.4430	0.0944	1.5974	1.5974	1.5974	1.5974	1.5974	1.5974	0.0000	18,148.59	18,148.59	0.4874	0.3300	18,259.11																	
Energy		0.7660	6.7462	4.2573	0.0418	0.5292	0.5292	0.5292	0.5292	0.5292	0.5292	8,355.983	8,355.983	2	0.1602	0.1532	8,405.638																	
Mobile		9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083	47,917.80	47,917.80	2.1953			47,972.68																	
Total		40.7912	67.7872	202.7424	0.6043	45.9592	2.4640	48.4231	12.2950	2.4399	14.7349	0.0000	74,422.37	74,422.37	2.8429	0.4832	74,637.44																	

Mitigated Operational

Category		lb/day												lb/day			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Area	30.5020	15.0496	88.4430	0.0944	1.5974	1.5974	1.5974	1.5974	1.5974	1.5974	0.0000	18,148.59	18,148.59	0.4874	0.3300	18,259.11	
Energy	0.7660	6.7462	4.2573	0.0418	0.5292	0.5292	0.5292	0.5292	0.5292	0.5292	8,355.983	8,355.983	2	0.1602	0.1532	8,405.638	
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.80	47,917.80	2.1953		47,972.68	
Total	40.7912	67.7872	202.7424	0.6043	45.9592	2.4640	48.4231	12.2950	2.4399	14.7349	0.0000	74,422.37	74,422.37	2.8429	0.4832	74,637.44	

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	3.1651	31.4407	21.5650	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419		3,747.9449	3,747.9449	1.0549		3,774.3174

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.855 5	1,269.855 5	0.0908		1,272.125 2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	0.1835	4.1800	1.4144	0.0128	0.3810	0.0137	0.3948	0.1034	0.0131	0.1165		1,380.326 2	1,380.326 2	0.0941		1,382.679 1

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	3.1651	31.4407	21.5650	0.0388	3.3074	1.5513	4.8588	0.5008	1.4411	1.9419	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.2 Demolition - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.855 5	1,269.855 5	0.0908		1,272.125 2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	0.1835	4.1800	1.4144	0.0128	0.3810	0.0137	0.3948	0.1034	0.0131	0.1165		1,380.326 2	1,380.326 2	0.0941		1,382.679 1

3.3 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.656 9	3,685.656 9	1.1920		3,715.457 3
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.656 9	3,685.656 9	1.1920		3,715.457 3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.3 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.3 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646

3.4 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055,6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230		6,007.0434	6,007.0434	1.9428		6,055,6134

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055,6134
Total	4.1912	46.3998	30.8785	0.0620	8.6733	1.9853	10.6587	3.5965	1.8265	5.4230	0.0000	6,007.0434	6,007.0434	1.9428		6,055,6134

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051

3.4 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006		6,011.4105	6,011.4105	1.9442		6,060.0158

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.4 Grading - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.075 0	3,789.075 0	0.2381		3,795.028 3
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.935 4	5,691.935 4	0.1602		5,695.940 8
Total	3.0904	14.8350	23.2704	0.0926	7.0087	0.0749	7.0836	1.8799	0.0699	1.9498		9,481.010 4	9,481.010 4	0.3984		9,490.969 1

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.075 0	3,789.075 0	0.2381		3,795.028 3
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.935 4	5,691.935 4	0.1602		5,695.940 8
Total	3.0904	14.8350	23.2704	0.0926	7.0087	0.0749	7.0836	1.8799	0.0699	1.9498		9,481.010 4	9,481.010 4	0.3984		9,490.969 1

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	2.8211	11.4799	21.2591	0.0893	7.0088	0.0601	7.0688	1.8799	0.0557	1.9356		9,155.1981	9,155.1981	0.3538		9,164.0437

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.5 Building Construction - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	2.8211	11.4799	21.2591	0.0893	7.0088	0.0601	7.0688	1.8799	0.0557	1.9356		9,155.1981	9,155.1981	0.3538		9,164.0437

3.6 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2023**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2023**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603

3.6 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.6 Paving - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663

3.7 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	236.5923	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2024**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	236.5923	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

3.7 Architectural Coating - 2024**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4,075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2,817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		0.7660	6.7463	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

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5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		0.7660	6.7463	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

6.0 Area Detail**6.1 Mitigation Measures Area**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Attachment C

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	17%

EXHIBIT B



Paul Rosenfeld, Ph.D.

Principal Environmental Chemist

Chemical Fate and Transport & Air Dispersion Modeling

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H₂O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*. 18:48

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Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

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Rosenfeld, P.E. (April 19-23, 2009). Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

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Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants..* Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. \$100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey

Duarte et al, *Plaintiffs*, vs. United States Metals Refining Company et. al. *Defendant*.

Case No.: 2:17-cv-01624-ES-SCM

Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division

M/T Carla Maersk, *Plaintiffs*, vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS “Conti Perdido”
Defendant.

Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237

Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica

Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants

Case No.: No. BC615636

Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica

The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants

Case No.: No. BC646857

Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado

Bells et al. Plaintiff vs. The 3M Company et al., Defendants

Case: No 1:16-cv-02531-RBJ

Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District

Phillip Bales et al., Plaintiff vs. Dow Agrosiences, LLC, et al., Defendants

Cause No 1923

Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa

Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants

Cause No C12-01481

Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois

Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants

Case No.: No. 0i9-L-2295

Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles

Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC

Case No.: LC102019 (c/w BC582154)

Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division

Brenda J. Cooper, et al., *Plaintiffs*, vs. Meritor Inc., et al., *Defendants*

Case Number: 4:16-cv-52-DMB-JVM

Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No.: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al., et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No.: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action NO. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward
DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City
Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas

Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant*.

Case Number cc-11-01650-E

Rosenfeld Deposition: March and September 2013

Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio

John Michael Abicht, et al., *Plaintiffs*, vs. Republic Services, Inc., et al., *Defendants*

Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)

Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division

Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs*, vs. BP Products North America, Inc., *Defendant*.

Case 3:10-cv-00622

Rosenfeld Deposition: February 2012

Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland

Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants

Case Number: 03-C-12-012487 OT

Rosenfeld Deposition: September 2013

EXHIBIT C



Technical Consultation, Data Analysis and
Litigation Support for the Environment

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Santa Monica, California 90401
Tel: (949) 887-9013
Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

**Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review**

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.

B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist

California Certified Hydrogeologist

Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt’s duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, *Oxygenates in Water: Critical Information and Research Needs*.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
North Central Region
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Rancho Cordova, CA 95670-4599
(916) 358-2900
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



September 24, 2024

Nicole Moore
Contract Planner
City of Stockton
345 N. El Dorado Street
Stockton, CA 95202
nicole.moore.ctr@stocktonca.gov

Subject: South Stockton Commerce Center
DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)
SCH No. 2020090561

Dear Nicole Moore:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Preparation of an Environmental Impact Report (EIR) from the City of Stockton (City) for the South Stockton Commerce Center (Project) in San Joaquin County pursuant to the California Environmental Quality Act (CEQA) statute and guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, plants and their habitats. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may need to exercise its own regulatory authority under the Fish and Game Code (Fish & G. Code).

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Fish & G. Code, § 1802.). Similarly, for purposes of CEQA, CDFW provides, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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CDFW may also act as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

The Project site consists of 422.22 acres of historic agricultural land, located at approximately Latitude: 37.882924 and Longitude: -121.239930 (WGS 84 datum, decimal degrees) in the southern portion of the City of Stockton, south of and adjacent to the Stockton Airport. The Project site is located west of the 99 Frontage Road and State Route (SR) 99, and east of Airport Way.

The Project consists of the development of a 422.22-acre site with the creation of 13 development lots, two (2) basin lots, one (1) park lot, one (1) open space lot, one (1) sewer pump station lot, and off-site sewer improvements. The Project would result in a maximum of 6,091,551 square feet of industrial type land uses, 140,350 square feet of commercial land uses, 54 acres of open space, 41 acres of public facilities, and 18 acres of right-of-way circulation improvements.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations presented below to assist the City of Stockton in adequately identifying and/or mitigating the Project's significant, or potentially significant, impacts on biological resources. The comments and recommendations are also offered to enable CDFW to adequately review and comment on the proposed Project with respect to impacts on biological resources. CDFW recommends that the forthcoming EIR address the following:

Project Description

The Project description should include the whole action as defined in the CEQA Guidelines § 15378 and should include appropriate detailed exhibits disclosing the Project area including temporary impacted areas such as equipment stage area, spoils areas, adjacent infrastructure development, staging areas and access and haul roads if applicable.

As required by § 15126.6 of the CEQA Guidelines, the EIR should include an appropriate range of reasonable and feasible alternatives that would attain most of the basic Project objectives and avoid or minimize significant impacts to resources under CDFW's jurisdiction.

South Stockton Commerce Center

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Assessment of Biological Resources

Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable CDFW staff to adequately review and comment on the Project, the EIR should include a complete assessment of the flora and fauna within and adjacent to the Project footprint, with emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats. CDFW recommends the EIR specifically include:

1. An assessment of all habitat types located within the Project footprint, and a map that identifies the location of each habitat type. CDFW recommends that floristic, alliance- and/or association-based mapping and assessment be completed following, *The Manual of California Vegetation*, second edition (Sawyer 2009). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.
2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the Project. CDFW recommends that the California Natural Diversity Database (CNDDDB), as well as previous studies performed in the area, be consulted to assess the potential presence of sensitive species and habitats. A nine United States Geologic Survey 7.5-minute quadrangle search is recommended to determine what may occur in the region, larger if the Project area extends past one quad (see *Data Use Guidelines* on the Department webpage www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data). Please review the webpage for information on how to access the database to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the Project. CDFW recommends that CNDDDB Field Survey Forms be completed and submitted to CNDDDB to document survey results. Online forms can be obtained and submitted at: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>.

Please note that CDFW's CNDDDB is not exhaustive in terms of the data it houses, nor is it an absence database. CDFW recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the Project site. Other sources for identification of species and habitats near or adjacent to the Project area should include, but may not be limited to, State and federal resource agency lists, California Wildlife Habitat Relationship System, California Native Plant Society Inventory, agency contacts, environmental documents for other projects in the vicinity, academics, and professional or scientific organizations.

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3. A complete and recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern and California Fully Protected Species (Fish & G. Code § § 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. The EIR should include the results of focused species-specific surveys, completed by a qualified biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable. Species-specific surveys should be conducted in order to ascertain the presence of species with the potential to be directly, indirectly, on or within a reasonable distance of the Project activities. CDFW recommends the City of Stockton rely on survey and monitoring protocols and guidelines available at: www.wildlife.ca.gov/Conservation/Survey-Protocols. Alternative survey protocols may be warranted; justification should be provided to substantiate why an alternative protocol is necessary. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. Some aspects of the Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought or deluge.
4. A thorough, recent (within the last two years), floristic-based assessment of special-status plants and natural communities, following CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (see www.wildlife.ca.gov/Conservation/Plants).
5. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]).

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

The EIR should provide a thorough discussion of the Project's potential direct, indirect, and cumulative impacts on biological resources. To ensure that Project impacts on biological resources are fully analyzed, the following information should be included in the EIR:

1. The EIR should define the threshold of significance for each impact and describe the criteria used to determine whether the impacts are significant (CEQA Guidelines, § 15064, subd. (f)). The EIR must demonstrate that the significant environmental impacts of the Project were adequately investigated and discussed and it must permit the significant effects of the Project to be considered in the full environmental context.

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2. A discussion of potential impacts from lighting, noise, human activity, and wildlife-human interactions created by Project activities especially those adjacent to natural areas, exotic and/or invasive species occurrences, and drainages. The EIR should address Project-related changes to drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.
3. A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands (e.g., National Forests, State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with a Conservation or Recovery Plan, or other conserved lands).
4. A cumulative effects analysis developed as described under CEQA Guidelines section 15130. The EIR should discuss the Project's cumulative impacts to natural resources and determine if that contribution would result in a significant impact. The EIR should include a list of present, past, and probable future projects producing related impacts to biological resources or shall include a summary of the projections contained in an adopted local, regional, or statewide plan, that consider conditions contributing to a cumulative effect. The cumulative analysis shall include impact analysis of vegetation and habitat reductions within the area and their potential cumulative effects. Please include all potential direct and indirect Project-related impacts to riparian areas, wetlands, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and/or special-status species, open space, and adjacent natural habitats in the cumulative effects analysis.

Mitigation Measures for Project Impacts to Biological Resources

The EIR should include appropriate and adequate avoidance, minimization, and/or mitigation measures for all direct, indirect, and cumulative impacts that are expected to occur as a result of the construction and long-term operation and maintenance of the Project. CDFW also recommends the environmental documentation provide scientifically supported discussion regarding adequate avoidance, minimization, and/or mitigation measures to address the Project's significant impacts upon fish and wildlife and their habitat. For individual projects, mitigation must be roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of CEQA (Guidelines § § 15126.4(a)(4)(B), 15064, 15065, and 16355). In order for mitigation measures to be effective, they must be specific, enforceable, and feasible actions that will improve environmental conditions. When proposing measures to avoid, minimize, or mitigate impacts, CDFW recommends consideration of the following:

1. *Species of Special Concern*: Several Species of Special Concern (SSC) have the potential to occur within or adjacent to the Project area, including, but not limited

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to: Burrowing Owl (*Athene cunicularia*) and Yellow-Headed Blackbird (*Xanthocephalus xanthocephalus*). Project activities described in the EIR should be designed to avoid any SSC that have the potential to be present within or adjacent to the Project area. CDFW also recommends that the EIR fully analyze potential adverse impacts to SSC due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. CDFW recommends the City of Stockton include in the analysis how appropriate avoidance, minimization and mitigation measures will reduce impacts to SSC.

2. *Sensitive Plant Communities*: CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDDB and are included in *The Manual of California Vegetation* (Sawyer 2009). The EIR should include measures to fully avoid and otherwise protect sensitive plant communities from Project-related direct and indirect impacts.
3. *Native Wildlife Nursery Sites*: CDFW recommends the EIR fully analyze potential adverse impacts to native wildlife nursery sites, including but not limited to bat maternity roosts. Based on review of Project materials, aerial photography, and observation of the site from public roadways, the Project site contains potential nursery site habitat for tree roosting bats and is near potential foraging habitat. Bats are considered non-game mammals and are afforded protection by state law from take and/or harassment, (Fish & G. Code, § 4150; Cal. Code of Regs, § 251.1). CDFW recommends that the EIR fully identify the Project's potential impacts to native wildlife nursery sites, and include appropriate avoidance, minimization and mitigation measures to reduce impacts or mitigate any potential significant impacts to bat nursery sites.
4. *Mitigation*: CDFW considers adverse Project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the EIR should include mitigation measures for adverse Project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of Project impacts. For unavoidable impacts, onsite habitat restoration, enhancement, or permanent protection should be evaluated and discussed in detail. If onsite mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

The EIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset Project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and

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management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

5. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by persons with expertise in the regional ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be appropriately timed to ensure the viability of the seeds when planted. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various Project components as appropriate. Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project. Examples may include retention of woody material, logs, snags, rocks, and brush piles. Fish and Game Code sections 1002, 1002.5 and 1003 authorize CDFW to issue permits for the take or possession of plants and wildlife for scientific, educational, and propagation purposes. Please see our website for more information on Scientific Collecting Permits at www.wildlife.ca.gov/Licensing/Scientific-Collecting#53949678-regulations.

6. *Nesting Birds*: Please note that it is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). CDFW implemented the MBTA by adopting the Fish and Game Code section 3513. Fish and Game Code sections 3503, 3503.5 and 3800 provide additional protection to nongame birds, birds of prey, their nests and eggs. Sections 3503, 3503.5, and 3513 of the Fish and Game Code afford protective measures as follows: section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant thereto; section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-

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prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the Fish and Game Code or any regulation adopted pursuant thereto; and section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Potential habitat for nesting birds and birds of prey is present within the Project area. The Project should disclose all potential activities that may incur a direct or indirect take to nongame nesting birds within the Project footprint and its vicinity. Appropriate avoidance, minimization, and/or mitigation measures to avoid take must be included in the EIR.

CDFW recommends the EIR include specific avoidance and minimization measures to ensure that impacts to nesting birds or their nests do not occur. Project-specific avoidance and minimization measures may include, but not be limited to: Project phasing and timing, monitoring of Project-related noise (where applicable), sound walls, and buffers, where appropriate. The EIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the Project site. In addition to larger, protocol level survey efforts (e.g., Swainson's hawk surveys) and scientific assessments, CDFW recommends a final preconstruction survey be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted earlier.

7. *Moving out of Harm's Way*: The Project is anticipated to result in the clearing of natural habitats that support native species. To avoid direct mortality, the City of Stockton should state in the EIR a requirement for a qualified biologist with the proper handling permits, will be retained to be onsite prior to and during all ground- and habitat-disturbing activities. Furthermore, the EIR should describe that the qualified biologist with the proper permits may move out of harm's way special-status species or other wildlife of low or limited mobility that would otherwise be injured or killed from Project-related activities, as needed. The EIR should also describe qualified biologist qualifications and authorities to stop work to prevent direct mortality of special-status species. CDFW recommends fish and wildlife species be allowed to move out of harm's way on their own volition, if possible, and to assist their relocation as a last resort. It should be noted that the temporary relocation of onsite wildlife does not constitute effective mitigation for habitat loss.
8. *Translocation of Species*: CDFW generally does not support the use of relocation, salvage, and/or transplantation as the sole mitigation for impacts to rare, threatened, or endangered species as these efforts are generally experimental in nature and largely unsuccessful. Therefore, the EIR should describe additional mitigation measures utilizing habitat restoration, conservation, and/or preservation, in addition to avoidance and minimization measures, if it is determined that there may be impacts to rare, threatened, or endangered species.

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The EIR should incorporate mitigation performance standards that would ensure that impacts are reduced to a less-than-significant level. Mitigation measures proposed in the EIR should be made a condition of approval of the Project. Please note that obtaining a permit from CDFW by itself with no other mitigation proposal may constitute mitigation deferral. CEQA Guidelines section 15126.4, subdivision (a)(1)(B) states that formulation of mitigation measures should not be deferred until some future time. To avoid deferring mitigation in this way, the EIR should describe avoidance, minimization and mitigation measures that would be implemented should the impact occur.

California Endangered Species Act

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in “take” (Fish & G. Code § 86 defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) of State-listed CESA species, either through construction or over the life of the Project.

State-listed species with the potential to occur in the area include but are not limited to: Swainson's Hawk (*Buteo swainsoni*), and Tricolored Blackbird (*Agelaius tricolor*).

The EIR should disclose the potential of the Project to take State-listed species and how the impacts will be avoided, minimized, and mitigated. Please note that mitigation measures that are adequate to reduce impacts to a less-than significant level to meet CEQA requirements may not be enough for the issuance of an ITP. To facilitate the issuance of an ITP, if applicable, CDFW recommends the EIR include measures to minimize and fully mitigate the impacts to any State-listed species the Project has potential to take. CDFW encourages early consultation with staff to determine appropriate measures to facilitate future permitting processes and to engage with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service to coordinate specific measures if both State and federally listed species may be present within the Project vicinity.

Native Plant Protection Act

The Native Plant Protection Act (Fish & G. Code §1900 *et seq.*) prohibits the take or possession of State-listed rare and endangered plants, including any part or product thereof, unless authorized by CDFW or in certain limited circumstances. Take of State-listed rare and/or endangered plants due to Project activities may only be permitted through an ITP or other authorization issued by CDFW pursuant to California Code of Regulations, Title 14, section 786.9 subdivision (b).

Lake and Streambed Alteration Program

The EIR should identify all perennial, intermittent, and ephemeral rivers, streams, lakes, other hydrologically connected aquatic features, and any associated biological resources/habitats present within the entire Project footprint (including utilities, access and staging areas). The environmental document should analyze all potential

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temporary, permanent, direct, indirect and/or cumulative impacts to the above-mentioned features and associated biological resources/habitats that may occur because of the Project. If it is determined the Project will result in significant impacts to these resources the EIR shall propose appropriate avoidance, minimization and/or mitigation measures to reduce impacts to a less-than-significant level.

Section 1602 of the Fish and Game Code requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

1. Substantially divert or obstruct the natural flow of any river, stream or lake;
2. Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
3. Deposit debris, waste or other materials where it may pass into any river, stream or lake.

Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

If upon review of an entity's notification, CDFW determines that the Project activities may substantially adversely affect an existing fish or wildlife resource, a Lake and Streambed Alteration (LSA) Agreement will be issued which will include reasonable measures necessary to protect the resource. CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if one is necessary, the EIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the Project may avoid or reduce impacts to fish and wildlife resources. All LSA Notification types must be submitted online through CDFW's Environmental Permit Information Management System (EPIMS). For more information about EPIMS, please visit <https://wildlife.ca.gov/Conservation/Environmental-Review/EPIMS>. More information about LSA Notifications, paper forms and fees may be found at <https://www.wildlife.ca.gov/Conservation/Environmental-Review/LSA>.

Please note that other agencies may use specific methods and definitions to determine impacts to areas subject to their authorities. These methods and definitions often do not include all needed information for CDFW to determine the extent of fish and wildlife resources affected by activities subject to Notification under Fish and Game Code section 1602. Therefore, CDFW does not recommend relying solely on methods developed specifically for delineating areas subject to other agencies' jurisdiction (such as United States Army Corps of Engineers) when mapping lakes, streams, wetlands, floodplains, riparian areas, etc. in preparation for submitting a Notification of an LSA.

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CDFW relies on the City of Stockton environmental document analysis when acting as a responsible agency issuing an LSA Agreement. CDFW recommends lead agencies coordinate with us as early as possible, since potential modification of the proposed Project may avoid or reduce impacts to fish and wildlife resources and expedite the Project approval process.

The following information will be required for the processing of an LSA Notification and CDFW recommends incorporating this information into any forthcoming CEQA document(s) to avoid subsequent documentation and Project delays:

1. Mapping and quantification of lakes, streams, and associated fish and wildlife habitat (e.g., riparian habitat, freshwater wetlands, etc.) that will be temporarily and/or permanently impacted by the Project, including impacts from access and staging areas. Please include an estimate of impact to each habitat type.
2. Discussion of specific avoidance, minimization, and mitigation measures to reduce Project impacts to fish and wildlife resources to a less-than-significant level. Please refer to section 15370 of the CEQA Guidelines.

Based on review of Project materials, aerial photography and observation of the site from public roadways, the Project site supports French Camp Slough. CDFW recommends the EIR fully identify the Project's potential impacts to the stream and/or its associated vegetation and wetlands.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to CNDDDB. The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be submitted online or mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov.

FILING FEES

The Project, as proposed, would have an effect on fish and wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the City of Stockton and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

Pursuant to Public Resources Code sections 21092 and 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the Project.

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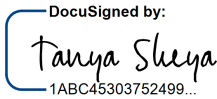
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Written notifications shall be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670 or emailed to R2CEQA@wildlife.ca.gov.

CDFW appreciates the opportunity to comment on the Notice of Preparation of the EIR for the South Stockton Commerce Center and recommends that the City of Stockton address CDFW's comments and concerns in the forthcoming EIR. CDFW personnel are available for consultation regarding biological resources and strategies to minimize impacts.

If you have any questions regarding the comments provided in this letter, or wish to schedule a meeting and/or site visit, please contact Zach Kearns, Environmental Scientist at (916) 358-1134 or zachary.kearns@wildlife.ca.gov.

Sincerely,

DocuSigned by:

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Tanya Sheya
Environmental Program Manager

ec: Billie Wilson, Senior Environmental Scientist (Supervisory)
Zach Kearns, Environmental Scientist
Department of Fish and Wildlife

Office of Planning and Research, State Clearinghouse, Sacramento

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REFERENCES

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A Manual of California Vegetation, 2nd ed. California Native Plant Society Press, Sacramento, California.

<http://vegetation.cnps.org/>

Central Valley Regional Water Quality Control Board

30 September 2024

Nicole Moore
City of Stockton
345 North El Dorado Street
Stockton, CA 95202
Nicole.Moore.Ctr@stocktonca.gov

COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, SOUTH STOCKTON COMMERCE CENTER PROJECT, SCH#2020090561, SAN JOAQUIN COUNTY

Pursuant to the State Clearinghouse's 30 August 2024 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environmental Impact Report* for the South Stockton Commerce Center Project, located in San Joaquin County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has

adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:

http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:

https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_2018_05.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the

State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ. For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at:

https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website

at: https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at:

https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at:

https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:

https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: <https://www.waterboards.ca.gov/centralvalley/help/permit/>

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.



Peter G. Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research,
Sacramento



September 30, 2024

Nicole Moore, Contract Planner
City of Stockton Community Development Department.
Via e-mail
Nicole.Moore.ctr@Stocktonca.gov

Re: Comments on the Notice of Preparation for the Recirculated Draft Environmental Impact Report for the South Stockton Commerce Center Project

Ms. Moore et al:

The Sierra Club submits the following comments on the NOP for the Recirculated Draft Environmental Impact Report (DEIR) for the South Stockton Commerce Center Project.

Please ensure that all future digital notices regarding this and every other discretionary project that are pending with the City are sent to Eric Parfrey, Sierra Club, at parfrey@sbcglobal.net.

We have attached the Club's original letter of Dec 31, 2021 responding to the first DEIR (Attachment A to this letter).

The South Stockton Commerce Center is a huge project, with over 6 million square feet of warehouse space on 422 acres of agricultural land near the Stockton Airport. This size is approximately double the size of the recently approved and under construction Mariposa warehouse project. It's important that the City of Stockton gets this environmental evaluation of the Project' impacts and mitigation measures correct.

We are disappointed that the City staff and applicant are apparently intending to reduce the scope of this new Recirculated DEIR to only a handful of topics, including air quality (AQ); greenhouse gases (GHG), climate change and energy; cumulative and growth inducing impacts. Our original letter was very critical of the original DEIR's analysis and lack of mitigation for water quality/flooding issues related to Little John Creek and French Camp Slough (see below). We insist that this new DEIR must revisit that important issue, which were inadequately addressed in the first DEIR.

The Recirculated DEIR Must Include New Methodology and New Mitigation Measures

For the critical issues related to AQ, GHG and energy, this NOP states that only a very limited new analysis will be performed. The NOP states that

“It is anticipated that changes to the October 15, 2021 Draft EIR will be concentrated in Chapter 3.3 Air Quality and Chapter 3.7 Greenhouse Gases, Climate Change and Energy and that changes to other chapters will be minimal. Other October 15, 2021 Draft EIR chapters will be screened to identify changes in the environmental impact analysis and recommended mitigation measures that could result from compliance with the City’s Warehouse Ordinance...” (emphasis added)

This very limited description of potential changes to the original analyses is unacceptable. If the City and applicant proceed with such a limited revision of the original DEIR which only focuses on “recommended mitigation measures that could result from compliance with the City’s Warehouse Ordinance,” we will be forced to seek redress through a potential CEQA challenge in court.

At a minimum, this recirculated DEIR must include detailed, effective mitigation measures designed to reduce AQ, GHG and climate impacts by accomplishing the following:

- sufficient solar panels to provide power for the Project
- utilize a "clean fleet" of light vehicles/delivery vans/trucks (Class 2 through 6) at the onset of business operations
- adopt standards to provide 100% electrification of all heavy-duty trucks (Class 7 and 8) using the Project site by end of 2025 or when commercially available for the intended application, whichever date is later
- provide electric charging facilities on the Project site sufficient to charge all electric trucks and employee vehicles
- design the Project to include a setback of at least 1,000 feet from the nearest homes or sensitive receptors, as applicable
- provide a community benefits fund to assist local residents in upgrading air ventilation systems, if applicable

Since the original DEIR and deeply flawed Final EIR for this Project was released in late 2021 and early 2022, respectively, the world of logistics warehouse development and mitigation for air quality emissions and GHG has dramatically changed in California. Numerous court cases challenging CEQA documents in both the Inland Empire and in Northern California have set new standards. This revised DEIR must incorporate a meaningful discussion of these recent court cases and the most up to date measures that are being implemented by other distribution warehouse developers, largely at the urging of community activists and regulatory agencies.

The DEIR Must Incorporate Recent Mitigation Measures Adopted for the Mariposa 1 and 2, Costco, and Other Recent Projects

Since the issuance of the original 2021 DEIR numerous advances have been made in terms of devising new programs and measures that would significantly reduce diesel emissions and GHG emissions from increased truck traffic. Major advances have also been made in solar and battery technology that will reduce GHG and reduce reliance on the existing PGE power grid.

We have attached the executed Settlement Agreement (Attachment B to this letter) between the Sierra Club, the City of Stockton, and Greenlaw Development, LLC (developer of the approved 203-acre Mariposa Industrial Park). The City of Stockton and the developer agreed to include all of the mitigation measures noted above. In addition, at the time, assurances from the city planning director were made to us that the Mariposa 2 and South Stockton Commerce Center projects would also agree to include these measures in each project's Final EIR and conditions of approval.

The Project EIR for this speculative project must carefully consider all of the recommended mitigation measures outlined in the Attorney General's "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act" guidelines, and recent warehouse settlement agreements and state which measures will be applied to this Project. If measures are not included, the EIR must explain why the measures have been rejected.

We are making similar requests in comment letters on pending warehouse projects in the cities of Lathrop, Manteca, and in unincorporated San Joaquin County.

If enacted by all jurisdictions in San Joaquin County, a standard set of air quality and greenhouse gas emission criteria will create a level playing field for all warehouse developers and protect the health of San Joaquin County residents, lessening the impacts of climate change.

In addition to the Mariposa settlement agreement, we have also appended a summary of the detailed measures that have been adopted for more recent warehouse projects (Attachment C). We demand that the new DEIR incorporate these minimal standards. If these common-sense measures are rejected by the EIR authors, we will seek to have the measures enforced through a settlement agreement negotiated between the applicant and the City.

We have also, once again, appended the Attorney General's seminal guidance on "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act" (Attachment D to this letter). Although this document is somewhat dated, last updated September 2022, it is still a very good reference to guide lead agencies to do the right thing in terms of mitigating warehouse development impacts. We urged the City Planning Commission and Council to adopt many of these standards when the 2023 City of Stockton

Warehouse Ordinance was updated. They refused, even when there was documented developer support, continuing to place economic development over resident's health, safety and wellbeing.

The City's Warehouse Ordinance is Ineffective and Irrelevant

We won't include a detailed recounting of the sad recent history of the failure by the City of Stockton Planning Commission and City Council to adopt a meaningful, relevant warehouse ordinance. Sierra Club and our environmental justice allies were adamant throughout the process that the final version was so watered down and meaningless, in terms of mitigating the very real AQ, GHG, noise, public health and other impacts on nearby disadvantaged communities already impacted by warehouse related pollutants, as to be an insult and a continuation of business as usual. (See the letter of May 9, 2024 from the Sierra Club, Attachment E).

Perpetuating the charade that project compliance with this toothless ordinance would somehow make real environmental impacts go away is absurd, and we will challenge any conclusions in this recirculated DEIR that attempt to make this argument.

The ordinance is devoid of any regulations that would require applicants to transition quickly to a non-polluting, zero-emission clean truck fleet. The ordinance's requirements for on-site solar is weak and full of loopholes. We could go on but won't.

Thankfully, Governor Newsom has just signed AB 98, which will force Stockton and other recalcitrant jurisdictions to adopt much more stringent regulations for warehouse development (see Attachment F).

Public Health Impacts Must be Analyzed

The new DEIR must include a believable health risk assessment that analyzes the increased health risks caused by additional diesel truck traffic on residents of south Stockton, including proposed truck routes on surface streets and specific numbers of trucks of various types that will serve the 6 million square foot proposed Project. The cumulative effects of full build out of the Arch Road Warehouse complex and other nearby projects must also be accounted for and queuing times estimated for increased traffic emissions based on a comprehensive truck study of major intersections in the area as currently configured.

Statements included in the original EIR approval documents such as those that follow are unacceptable in an FEIR when making statements of overriding consideration and not aligned with CEQA which requires that the public be informed and able to comment.

- "Because there is not an end user, site plan review, architectural plan, etc., it is not possible to reasonably calculate the emissions or onsite mitigation of the end user/site/building, making it impossible to calculate the offsite mitigation needs."

- "It is anticipated that the best design measures, including the State of California Department of Justice's "Warehouse Projects: Best Practices and Mitigation Measures" would be **considered** for incorporation into site and/or building design as determined."

Disclosing air pollution emissions from the entire expected length of truck trips must be clearly presented and an explanation for the operational trip length be provided. CEQA requires full public disclosure of a Project's anticipated truck trips, which entails calculating truck trip length based on likely truck trip destinations, rather than the distance from the facility to the edge of the air basin, local jurisdiction, or other truncated endpoint. The air quality assumptions input into the CalEEMod model for each land use must be evidence based and for speculative projects must include conservative assumptions.

There is a proposed grade-separated overpass of the UPRR line and a proposed railroad spur line to provide rail access throughout the Project. Without including some rail specific land use alternatives, the air quality assumptions are incomplete. The FEIR states that "The project proposes to potentially include rail service to up to three large parcels (parcels 2, 3, and 4) within the Project site. A potential railroad spur line would extend east from the UPRR along the Project site's northern edge providing rail access to the parcels." Again, rail emissions were not included in the air quality modelling in the original DEIR.

All air pollution emissions associated with the Project must be considered, regardless of where those impacts occur.

Water Quality, Hydrology, Flooding Impacts Must be Analyzed and Mitigated

The NOP notes that for the Hydrology and Water Quality section: "No substantive changes to the October 15, 2021 Draft EIR are anticipated. The Draft EIR adequately considered the potential hydrology and water quality effects of the project."

We could not disagree more vociferously. Our letter of Dec 31, 2021 raised numerous objections to the original EIR's analysis and these objections were ignored in the response to comments.

The original DEIR deemed water related impacts as less than significant when in fact the construction of the proposed Project and the paving over of 350 acres has the potential to interfere substantially with groundwater recharge associated with the Project area and current land use such that the Project may impede sustainable groundwater management of the basin. The DEIR identified the Subbasin incorrectly as the Eastern San Joaquin River Groundwater Subbasin when the name of the Subbasin in which the Project is located is the Eastern San Joaquin Groundwater Subbasin. The Subbasin is critically overdrafted and the location of the

current agricultural fields presents an opportunity to use flood flows to recharge our overdrafted aquifer and provide downstream flood protection.

Lands adjacent to natural waterways are particularly good for cost effective groundwater recharge projects. Additionally, mitigation to facilitate groundwater recharge should be an expected mitigation measure.

The City of Stockton has recently increased the groundwater pumping capacity in South Stockton and is spending millions of dollars to facilitate the development of a groundwater recharge facility in North Stockton. The most recent annual report, 2023, for the Eastern San Joaquin Subbasin shows decreased storage in the southern area of the basin so impacts to groundwater recharge and groundwater storage are significant.

The biological community living in the area may at times be dependent on groundwater as this is one of the few remaining natural areas which have not undergone development in the City of Stockton. It is critical that water, both surface and groundwater, impacts be evaluated in conjunction with biological resource impacts. Finally, chloride and total dissolved solid levels around that area are elevated, have historically been a recognized problem in terms of water quality and freshwater recharge, like from rain, are important to improve water quality.

Furthermore, the original DEIR deemed impacts relating to drainage pattern changes due to the addition of impervious surfaces as less than significant without calculations estimating runoff **under climate change scenarios with infrequent atmospheric river rainfall events causing substantial surface runoff, flooding, or surface runoff of polluted stormwater.** Climate changes relating to global warming must be carefully considered especially relating to changes to precipitation patterns. Paved land has much higher runoff coefficients, as compared to the existing agricultural land use which has been shown to attenuate runoff and reduce flood risks. Increased setbacks and open spaces adjacent to surface waterways are important mitigation measures for flood risk reductions.

The Hydrologic and Hydraulic Assessment memo in the 2021 DEIR dated December 2020 was completed in the midst of an extensive drought time when there had not been intense flooding for approximately 20 years. The climate change effects in Stockton, including weather whiplash, was characterized during the intense rains and flooding that occurred between December 2022-March 2023.

Airport Way in the area was closed due to flooding of French Camp Slough – even with all the open agricultural land and its increased permeability as compared to pavement. The project site is located within a FEMA SFHA requiring the lowest finished flow be “elevated above the highest adjacent grade to a height two (2) feet above the depth number specified in feet on the FIRM or elevated at least four (4) feet above the highest adjacent grade if no depth number is specified.”

The San Joaquin County Public Works 200-year Flood Map was referenced as a basis for approving the Project based on a visual inspection indicating that the Project area did not have three feet or more potential flood depth based on current land conditions, agricultural. The relationship to precipitation intensity and duration as was experienced in Stockton late 2022-early 2023 must be considered when calculating volumes of water which will be created when over 300 acres of existing agricultural land is proposed to be paved over to accommodate for the development of 13 speculative projects.

The size of the proposed flood control basins needs to be evaluated using more intense stormwater runoff than a 10 year storm which was calculated to be 126 ac-ft. The rationale for using a “conservative assumption as a 10-year storm” was not disclosed. The Hydrologic and Hydraulic Assessment memo in the 2021 DEIR stated that “The joint-probability analyses to determine the actual recurrence interval for this assumption is beyond the scope of the study.” Further, the Assessment stated that the existing development located to the west of the Union Pacific Railroad would be responsible for improvements to reduce stormwater runoff to French Camp Slough. The DEIR did not include any offsite mitigation measures or the avenue by which the City would make such a requirement. There was no analysis of the need for properties east of highway 99 that discharges to and that contributes to overflows of Weber Slough which the proposed north basin would mostly accommodate to reduce peak flows. The Assessment memo did not include a map showing the five flooding sources or include a rationale as to why only 100 year peak discharges obtained from DWR’s updated CVFED model were used instead of 200 year peak discharges.

In fact, an additional General Plan Amendment and Rezoning of two areas will be necessary for the proposed Project due to limitations caused by the floodway along French Camp Slough. This floodway is a natural floodplain and a nexus facilitating the flow of floodwater from the waterway to adjacent lands lessening the flood risk to downstream residential areas. The recirculated DEIR must address this issue.

Many of South Stockton residents are paying for increased flood protection associated with the San Joaquin River, including French Camp Slough, the Mossdale Tract Assessment District. None of the warehouses existing adjacent to French Camp Slough or the proposed Project, or projects on the east side of Highway 99 contribute to improvements yet their development is responsible for increased peak flows which increases the likelihood of flooding. The DEIR must evaluate cumulative impacts relating to increased flooding, decreased groundwater recharge and storage.

The revised DEIR should address Project related changes to drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site

and include cumulative impacts on drainage related other warehousing projects upstream and downstream. All assumptions made during the modeling and design of detention basins must be clearly articulated.

Conclusion

The recirculated DEIR analyses must be amended to include a more credible analysis of air quality, public health, GHG and climate, and hydrologic impacts.

We will be monitoring the upcoming recirculated DEIR very closely to ensure that it contains all the mitigation measures that have been previously adopted for the Mariposa 1, Mariposa 2, Costco, and other recent projects.

To be clear, if the City attempts to delete or weaken the mitigation measures included in those previous projects or in the original DEIR/FEIR in this recirculated DEIR for the South Stockton Commerce Center, the Sierra Club will challenge those actions.

Sincerely,

s/s Margo Praus, Chair, Eric Parfrey, Mary Elizabeth M.S., R.E.H.S., Conservation Chair
Delta-Sierra Group, Sierra Club

cc: Robert Swanson, California Attorney General's Office
Stanley Armstrong, California Air Resources Board
Patia Siong and Harout Sagherian, San Joaquin Valley Air Pollution Control District
Heather Minner and Winter King, Shute, Mihaly, & Weinberger
Aaron Isherwood and Joya Manjur, Sierra Club Environmental Law Program
Stockton City Council
Stockton Planning Commission

Attachments:

- A. Sierra Club letter of Dec 31, 2021 to original DEIR plus associated materials including original NOP comments
- B. Settlement Agreement between the Sierra Club, the City of Stockton, and Greenlaw Development, LLC (developer of the approved 203-acre Mariposa Industrial Park)
- C. Detailed Mitigation Measures from Other Recent Warehouse Projects
- D. Attorney General "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act"
- E. Letter of May 9, 2024 from the Sierra Club regarding Stockton Warehouse Ordinance
- F. Los Angeles Times, "Gavin Newsom signs controversial bill regulating California warehouse development," September 29, 2024

Attachments A, B, D, E, and F
(see separate attached PDF files)

Attachment C
Detailed Mitigation Measures for
Recent Warehouse Projects

Solar

Developer shall install the maximum amount of on-site rooftop solar generation permitted under applicable law. On-site rooftop solar generation shall be in an amount sufficient to meet the Project's electricity demand, including but not limited to all building electrical demand, all warehouse equipment electrical demand (including yard goats, hostlers, sweepers, forklifts, and all other equipment required to be electric by these terms), and all electrical demand related to on-site charging of clean fleet and passenger electric vehicles. Under no circumstances shall onsite solar generation supply less than 50 percent of the Project's electricity demand. If rooftop space is insufficient to meet this solar generation requirement, Developer shall where feasible install additional solar photovoltaic panels on covered automobile parking spaces.

If the on-site solar photovoltaic system will not be able to supply the Project's full operational electricity demand, including demand resulting from EV charging requirements, Developer shall provide documentation prior to the issuance of any certificate of occupancy demonstrating that the additional electrical demand will be supplied with 100 percent carbon-free electricity sources for the life of the facility.

Prior to the issuance of any certificate of occupancy, Developer shall install an operational battery storage system that provides sufficient battery storage to support at least 4 hours of Project operation or is scaled to the size of the Project's on-site solar photovoltaic array as required by the current California Energy Code, whichever is greater

Facility Electrification

Building operations, including but not limited to HVAC, water heating, refrigeration, and automated equipment shall be powered by electricity for the lifetime of the Project. Neither natural gas nor propane shall be used.

Diesel-powered backup generators shall be prohibited during construction and for the lifespan of the facility unless required by the Fire Department for an onsite fire pump, in which case a generator shall be the minimum size necessary to support the fire pump and shall be used only for that fire pump in the event of a fire emergency.

All on-site equipment and vehicles, including but not limited to yard hostlers, yard equipment, forklifts, yard trucks, tractors, and pallet jacks shall be electric from the start of operations.

The Developer shall provide sufficient charging and other infrastructure to support all electric vehicles and equipment.

Parking and EV Charging

At least 15 percent of all passenger vehicle parking spaces shall be equipped with working Level 2 quick-charge electric vehicle (EV) charging stations that are installed and operational, prior to building occupancy. Level 2 quick-charge units shall generate at least 19kW of charging output power. These stations shall be maintained or replaced with equivalent or better-performing stations for the life of the Project. At minimum, an additional 25 percent of all passenger vehicle parking spaces shall be “EV Ready,” as defined by the 2022 Green Building Code, and/or may be equipped with working Level 2 EV quick charge stations. Developer shall convert EV Ready spaces to working Level 2 EV quick charge stations at a rate of at least two spaces per year.

A minimum of 10 percent of heavy-duty truck loading docks shall be equipped with EV charging infrastructure for future use by electric trucks. Developer shall design such infrastructure to facilitate future expansion. At least one electric heavy-duty (Class 7 and 8) truck charger shall be installed by or before two years from the first final certificate of occupancy issued for a Project building. Conduit to support medium-duty vehicle, delivery van, and truck (Class 2 through 6) charging shall be installed during initial Project construction, and at least one charger shall be installed and operational prior to issuance of any final certificate of occupancy.

Air Quality and Clean Fleet Requirements

Developer shall ensure that all heavy-duty trucks (Class 7 and 8) serving the Project comply with model year 2014 or later emissions standards from start of operations and shall transition to electric vehicles (EVs), with the fleet fully electric within three (3) years of the issuance of the first final certificate of occupancy for the Project, or when widely commercially available for the intended application, whichever date is later. An EV shall ordinarily be considered widely commercially available if the vehicle is capable of serving the intended purpose and is widely available for purchase for less than 150% the cost of a Class 7 or 8 heavy-duty combustion-engine truck meeting the emissions standards in place at the time the comparison is made (model year 2014 or later emissions standards). For the purpose of this cost comparison, “cost” shall mean the total vehicle cost for the first five (5) years of ownership, including any purchase incentives, rebates, and fuel and electricity costs. Any comparison must be like-for-like, i.e., must compare an EV with a new production combustion-engine truck of the same class and substantially similar trim level that is widely available for purchase at the time the comparison is made.

In order to demonstrate that such vehicles are not widely commercially available, Developer must submit documentation to Petitioners from a minimum of three (3) EV dealers identified on the <https://californiahvip.org> website demonstrating the inability to obtain the required EVs or equipment meeting the above standard within 6 months (“Offer of Proof”). An Offer of Proof by Developer creates a rebuttable presumption that EVs are not widely commercially available for the intended application.

Developer shall ensure that all vehicles/delivery vans/trucks (Class 2 through 6) serving the Project meet the following requirements: (i) 33% of the fleet will be EVs at start of operations, (ii) 50% of the fleet will be EVs within two years of the first certificate of occupancy for the Project, (iii) 65% of the fleet will be EVs within four years of issuance of the first certificate of occupancy for the Project, (iv) 80% of the fleet will be EVs within five (5) years of issuance of the first certificate of occupancy, and (v) 100% of the fleet will be EVs within seven years of issuance of the first certificate of occupancy.



SIERRA CLUB

DELTA-SIERRA GROUP
MOTHER LODE CHAPTER

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Nicole Moore
City of Stockton
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Stockton CA 95202
via email: Nicole.Moore@stocktonca.gov.

12.31.2021

Re: South Stockton Commerce Center Project Draft Environmental Impact Report

The Delta-Sierra Group reviewed the Notice of Preparation/Initial Study (NOP/IS) and submitted comments on 10.27.2020 for the South Stockton Commerce Center Project. As will be explained later in our comments we only came to learn of the availability of Draft Environmental Impact Report (DEIR) on 12.28.2021. The South Stockton Commerce Center Project is for the planned industrial development of 437.45 acres of agricultural lands located off Airport Way immediately north of the confluence with French Camp Slough and the North Fork of Little John's Creek.

SETTING



PROPOSED PROJECT

The Project includes a Tentative Map for the 437.45-acre site to create 13 development lots, two basin lots, one park lot, one open space lot, and one sewer pump station lot.

TABLE 2.0-2: SSCC LAND USE SUMMARY

<i>LAND USE</i>	<i>ACREAGE (NET)</i>	<i>TOTAL SQUARE FEET PER LAND USE</i>	<i>FLOOR AREA RATIO</i>	<i>MAXIMUM SQUARE FEET</i>
Commercial	11.0	467,834	0.30	140,350
Industrial ¹	298.0	12,960,747	0.47	6,091,551
Open Space	54.0	--	--	--
Public Facilities (Storm Basins, Outfall and Pump Stations)	41.0	--	--	--
Roadway Right of Way	18.2	--	--	--
TOTAL	422.2	--	--	6,231,901

NOTE: FOR PURPOSES OF THE ENVIRONMENTAL ANALYSIS, A RANGE OF INDUSTRIAL USES IS ASSUMED. THESE USES INCLUDE GENERAL LIGHT INDUSTRIAL, INDUSTRIAL PARK, WAREHOUSING, MINI-WAREHOUSE, HIGH-CUBE TRANSLOAD AND SHORT-TERM STORAGE WAREHOUSE, HIGH-CUBE FULFILLMENT CENTER WAREHOUSE, HIGH-CUBE PARCEL HUB WAREHOUSE, AND HIGH-CUBE COLD STORAGE WAREHOUSE.

The DEIR does not include a full disclosure of impacts for this speculative and discretionary project. A final and definitive site plan is not currently proposed. Planned mitigation and environmental impact analysis is based on a conceptual site plan which underestimates impacts and fails to address cumulative impacts resulting from the operation of the Project.

All mitigation must be paid for before any permit is issued. This is a speculative project with several owners to be involved in the future. Without a final definitive site plan and the piecemeal analysis of impacts proposed for the 13 individual projects, the public will not have an opportunity to evaluate whether or not the mitigation measures are adequate for the individual projects. CEQA provides a seat at the table whereas the review of individual projects would not likely be at a level that would require public notice and engagement. If the DEIR is not significantly modified to address our comments and those of others and recirculated, the FEIR will include mitigation measures deemed acceptable by the City of Stockton through 2045 and pose an environmental burden on already burdened residents.

Mitigations proposed in the DEIR should not be static but requirements adjusted as conditions change related to future climate, groundwater, flooding, transportation, or air quality that will warrant additional mitigation during Project development of this speculative project.

The City of Stockton must release the mitigation monitoring and reporting results to the public throughout the development process.

COMMUNITY INVOLVEMENT

An email was sent to the City of Stockton contact for the Project, Nicole Moore on 3.19.2021 to follow up on the NOP/IS comments submitted on 10.25.2020¹. This 3.19.2021 email expressed concerns about notification for the release of a draft environmental impact report and to provide a link for the Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act² which included best practices relating to community engagement.

¹ https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u14441/NOP_South_Commerce_10272020_F.pdf

² <https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf>

A subsequent email to the City of Stockton Project contact, Nicole Moore was sent on 3.19.2021 to follow up on the City of Stockton's 3.19.2021 response to our initial email of 3.19.202. This subsequent email requested clarification regarding the City of Stockton's CEQA process, ASK Stockton noticing, and the City of Stockton's CEQA process to comply with CEQA Guidelines. A suggestion was also made that the city as part of required outreach convene a committee to discuss possible city-specific adopted measures. No response to this email was received.

Yesterday, 12.28.2021, in the process of investigating a proposed housing project identified on a map, we discovered that the DEIR review periods for a similar type of project, Mariposa Industrial Park and for the South Stockton Commerce Center Project had ended. The Mariposa Industrial Park Project was completely unknown to the Delta-Sierra Group because two public notices in the newspaper were missed. We requested in the 10.25.2020 correspondence to the City of Stockton that we be placed on a CEQA notification list, as will be further described below. This 10.25.20 request was ignored.

The City of Stockton's continued reliance on the minimum public notice of CEQA projects or public hearings ignores the reality of residents' ability to engage in community affairs as volunteers. The process of public notice involves publishing a public notice in a newspaper of largest general circulation, notifying the State Clearinghouse at the California Office of Planning and Research, and providing a public notice to the San Joaquin County Recorder-Clerk's Office. The Clerk's Office places a paper copy of the notice on a second-floor wall where their office is located, for public viewing during office hours of 8:00 AM to 5:00 PM.

The purpose of the California Environmental Quality Act (CEQA)³ is to:

- Prevent or minimize significant, avoidable damage to the environment.
- Disclose potential environmental effects of a proposed discretionary project, through a variety of publicly accessible documents.
- Encourage public participation in the environmental review and decision-making process.
- Ensure transparency in governmental decision-making process.

The CEQA Guidelines that were most recently published included the following statement:

§ 15087. Public Review of Draft EIR⁴

(a) Notice shall be mailed to the last known name and address of all organizations and individuals who have previously requested such notice in writing.

In our 10.27.2020 comment letter the Delta-Sierra Group stated the following in writing:

Please add the Delta-Sierra Group to your CEQA notification list. We became aware of the project through a CEQAnet link from a colleague. Please let us know if there is to be any public meeting regarding this project and when the draft environmental impact report becomes available to review. If you have any questions, you may contact me by email mebeth@outlook.com.

³ [https://www.conservation.ca.gov/dlrp/Pages/CA-Environmental-Quality-Act-\(CEQA\)-.aspx](https://www.conservation.ca.gov/dlrp/Pages/CA-Environmental-Quality-Act-(CEQA)-.aspx)

⁴ http://files.resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf

The DEIR included the following statements

“Additionally, a public scoping meeting was held during the public review period to solicit recommendations for a reasonable range of alternatives to the proposed Project. No specific alternatives were recommended by commenting agencies or the general public during the NOP public review process.”

We specifically asked for notification of a public meeting and no notification was provided by the City of Stockton. Additionally, the website where the South Stockton Commerce Center Project CEQA documents are found includes no notice of a specific public scoping meeting⁵.

The DEIR included the NOP/IS notice which included the following statements:

“A responsible agency, trustee agency, or other public agency may request a meeting with the City of Stockton or its representatives in accordance with Section 15082(c) of the CEQA Guidelines. A public scoping meeting and neighborhood meeting will be held during the public review period as follows:

1. Virtual Scoping and Neighborhood Meeting: To obtain the call-in and access information please RFVP with Nicole Moore, Acting Current Planning Manager at Nicole.Moore@stocktonca.gov.”

Our 10.27.2021 letter which was conveyed by email to Nicole.Moore@stocktonca.gov specifically requested to learn of the time for a public meeting. We were never notified of the time and date for this proposed public scoping and neighborhood meeting.

No notification of DEIR availability was provided by the City of Stockton, and we only learned of the DEIR availability on 12.28.2021 and initiated review and developed comments presented below. We hope that these comments will be included and considered when developing a revised DEIR or a Final Environmental Impact Report (FEIR) as the official comment period only ended on 12.14.2021.

DEIR IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Aesthetics and Visual Resources Mitigation Measure 3.1-1

The Project proposes approximately 54 acres of open space areas within the site, which will include approximately seven acres of open space in which a portion of it will be for a habitat setback area located east of the UPRR, south of the future Commerce Drive and along French Camp Slough. The remaining 47 acres of open space area is associated with the French Camp Slough drainage area. Additional open space is needed to accommodate flood flows on the North Fork of Little John’s Creek.

We are concerned with the newly proposed restriction on wildlife habitat setback area adjacent to the UPRR tracks. The restrictions on wildlife movement which construction of the proposed Project poses could create a situation where a protected wildlife corridor is needed to avoid increased wildlife kills due to rail or truck traffic. Additional habitat setback area is needed.

This open space is vital for localized wildlife habitat and must be protected from impacts related to the implementation of industrial/commercial future plans. A future lighting plan is to be submitted to the City of Stockton for review and should be made available for public review especially those that are wildlife and habitat experts to determine if the proposed plan will interfere with localized wildlife

⁵ <http://www.stocktonca.gov/government/departments/communityDevelop/cdSouth.html> pdf created

activities. Lighting mitigation of impacts related to wildlife habitat is not the same as lighting mitigation in an urbanized setting. Additional lighting mitigation is necessary.

There is a proposed grade-separated overpass of the UPRR line and a proposed railroad spur line to provide rail access throughout the Project. Designs of overpasses that are aesthetically pleasing can add significantly to the sense of place. Additionally, the proposed new road, Commerce Drive, is proposed to have a 78-foot right-of-way with one 16-foot traffic lane in each direction, and a 16-foot center turn lane. Five-foot landscaped areas would separate the traffic lanes from the 8-foot sidewalks on both the north and south sides of the road. All landscaping must be maintained by the Project proponent so as not to put further burdens on City of Stockton residents to fund on-going maintenance relating to this discretionary project. Onsite vegetation should also be considered to provide shading and reduce the heat island effect associated with the proposed asphalt paving as well as vegetative buffers between the Project and residential areas can help to reduce pollutant dispersal.

Agricultural Resources Mitigation Measure 3.2-1

The proposed Project will result in the conversion of farmland including prime farmland and farmland of statewide importance as indicated by the Department of Conservation Land Division in their NOP/IS comments available to the public⁶. The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan specifically addresses loss of habitat not loss of agricultural activities on agricultural lands⁷. There are different fees related to habitat potential with a category for agricultural lands.

All of the existing land is in active agricultural uses and should require both City of Stockton Agricultural Land Mitigation (1:1)⁸ and San Joaquin County Habitat Mitigation based on a San Joaquin County Council of Government (SJCOG) biological study to determine mitigation level. The City of Stockton Agricultural Land Mitigation program was not referenced as part of the required mitigation.

Agricultural Land Mitigation Impact Fee - Central Valley Farmland Trust (CVFT): Under Municipal Code section 16-355.270, the City of Stockton has the authority to establish a Public Facilities Fee Program (PFF) on new development. In 2003, City Council approved resolution #2003-04-03-0105, establishing the PFF schedule. In 2007, the City Council agreed (through Council resolution #2007-02-07-0079) to add Agricultural Land Mitigation Fee to its Public Facilities Fee Program.

The City of Stockton Agricultural Land Mitigation Fee is collected for all applicable new development projects that would result from the conversion of important farmland, as defined by California Department of Conservation, into urban uses. All Agricultural Land Mitigation fees collected pursuant to the agreement should be remitted to Central California Farmland Trust. The Central Valley Farmland Trust is the land trust that facilitates the placement of agricultural conservation easements to fulfill farmland mitigation requirements in the Central Valley.

The Central Valley Farmland Trust does not fulfill the habitat mitigation required under the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan and the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan mitigation does not mitigate for the loss of agricultural production. Both mitigations should be required. The mitigation monitoring and reporting should include a full disclosure of agricultural land mitigation and should be readily available to the public.

⁶ https://files.ceqanet.opr.ca.gov/264972-2/attachment/dv3sIbIipUFd4VLrSuQGv7_BAFI5DauZjy-ZTT4RRtvMnYAvi9wC9xnsdw9iaT_aegyYiiJ2hSU5GJ0

⁷ <https://www.sjcog.org/288/Habitat-Frequently-Asked-Questions>

⁸ <https://www.calandtrusts.org/wp-content/uploads/2014/03/Overview-of-Legal-Restains-on-Ag-Land-Mit-Programs.pdf>

Agricultural land mitigation only ensures that some other agricultural land cannot be easily developed through a conservation easement. Agricultural land mitigation does not create new agricultural land. Once the land is developed it is unlikely ever to return to food production.

We disagree that the Impact 3.2-2, relating to the conversion of nearby farmland to non-agricultural uses, is less than significant. The conversion of this land to non-agricultural uses will create additional development pressures on the surrounding farmland and should have been evaluated in the DEIR. For example, increased truck traffic will hinder agricultural operations that use the roadways. Monitoring of adjacent farmed land should be conducted throughout the life of the Project and if further agricultural lands are converted then the South Stockton Commerce Center Project proponents, developers, landowners should pay for additional agricultural land mitigation.

The conversion of this especially important agricultural land not only will have an effect on local food security, as row crops are food crops, but will significantly affect existing flood buffering, wildlife habitat, and water infiltration. The environmental analysis of the no Project alternative should have characterize the positive attributes which will be lost, if developed as described. Removing agricultural land removes the natural climate change attenuator that soils can serve also affecting the City of Stockton's ability to reduce carbon dioxide levels in the atmosphere through carbon sequestration.

Air Quality Mitigation Measure 3.3-1

The measures proposed relating to the San Joaquin Valley Air Pollution Control District Rule 9510 should have included more than just the offsite mitigation strategies proposed. The stated purposes of Rule 9510⁹ include:

- Fulfill the District's emission reduction commitments in the PM10 and Ozone Attainment Plans.
- Achieve emission reductions from the construction and use of development projects through design features and on-site measures.
- Provide a mechanism for reducing emissions from the construction of and use of development projects through off-site measures.

No onsite operational measures were included to reduce emissions relating to the Project's proposed operation that is expected to generate a minimum of 22,633 daily vehicle trips, including 5,552 daily heavy-duty truck trips, along local roadways, except for some onsite mitigations of some construction activities. Onsite measures such as requiring on-site equipment, such as forklifts and yard trucks, to be electric, requiring all heavy-duty vehicles entering or operated on the project site to be zero emission beginning in 2030, constructing electric truck charging stations and electric plugs for electric transport refrigeration units are reasonable on-site requirements that should have been proposed in the DEIR. Without these onsite measures, the Project will add to the residents of Stockton already high pollutant burden.

The only mention of zero emission vehicles in the DEIR was that some employees may use electric vehicles. Anti-idling measures were not included nor were any vegetative barriers planned as mentioned previously. Furthermore, the emissions may have been underestimated because it is likely that trip lengths will be greater than 10 miles relating to other nearby logistical centers in the Bay Area or beyond and the proposed rail connections. In our NOP/IS comment letter we identified problems with previous emission modeling performed by the City of Stockton's consultant and specifically

⁹ <https://www.valleyair.org/rules/currnrules/r9510-a.pdf>

requested that best practices put forth by the California Air Resources Board be used for emission modelling:

Again, evaluating impacts is challenging for a project that is not well defined. Recently, the City of Stockton used CalEEMod fleet mix defaults to estimate a project's mobile source air pollutant emissions and was notified that the mileage used required revisions. When performing air emission analyses and traffic impact studies a reasonable estimate of heavy-duty truck trips commensurate with the proposed project's size and location is necessary. Please be very clear and concise when disclosing the parameters used during emissions and traffic analyses.

The characterization of the Project's operational mobile source air emissions does not include analyses with supporting evidence that assumptions made will be protective of public health and the environment.

The City of Stockton did not include a maximum vehicle mile traveled for the Project to cap emissions. The DEIR did not describe how the process between the City of Stockton and the San Joaquin Valley Air Pollution Control District would be transparent while offsite mitigation strategies proposed on a project-by-project basis are reviewed and approved.

The proposed mitigation measures include a piecemeal analysis by considering each phase of development separately. Cumulative impacts occur as each "individual project" is developed. Mitigation of these individual projects will only be implemented if the pollutant threshold for an individual project is exceeded. This piecemeal method of impact analysis neglects cumulative air quality impacts associated with the full development that will occur if the existing DEIR is not significantly updated with further mitigation measures and recirculated for review.

Air Quality Construction Phase

Mitigation Measure 3.3-3, 3.3-4, 3.3-5

These mitigation measures relate primarily to dust and soil erosion/tracking controls and paving but does not address the heavy diesel equipment that will be used onsite and offsite to transport soil related to site flood mitigation grading activities and this heavy diesel equipment will be generating toxic air pollutants.

Air quality impacts are not adequately characterized to disclose potential effects or to prevent or minimize significant, avoidable damage to the environment.

Cultural and Tribal Resources

Mitigation Measure 3.5-1

The mitigation proposes that a qualified archaeologist shall conduct pre-construction worker cultural resource sensitivity training. The Northern Valley Yokuts representative should be present during this training and records maintained for all construction workers in attendance. This training should be offered periodically throughout the construction process as onsite construction workers change.

Mitigation Measure 3.5-2

The mitigation measure states only that a Native American monitor may be required if the archaeologist determines that Native American resources are identified. The Northern Valley Yokuts Tribal representative requested that in accordance with their policies that a tribal monitor should be present for all ground disturbing activities. Having a Native American monitor present when Native American

resources have been identified should not be optional, but should be required, and paid for by the Project proponents.

Mitigation Measure 3.5-3

The mitigation measure proposes two separate processes involving the San Joaquin County Coroner. One places the San Joaquin County Coroner as the responsible party to contact the Native American Heritage Commission to identify a descendant. If no descendant is identified, the San Joaquin County Coroner may make a recommendation to the landowner or the person responsible for the excavation work to treat or dispose of the human remains and any associated grave goods without further Native American consultation.

The San Joaquin Coroner should be informed to determine that no further investigation of the cause of death is required. Once the Coroner has determined that there is no need for investigating the cause of death, the Native American monitor or the proper descendant of the deceased individual should propose proper reburial either onsite or an alternative location preferred by the Native American tribal representative in consultation with the Native American Heritage Commission.

The City of Stockton or its authorized representative should not be allowed to reject the wishes of a descendant, or the Native American Heritage Commission measures be allowed to be rejected by the landowner, and those entities make the decision of reburial location on their own. Everyone must work together to come upon a mutually agreeable solution and communication should begin in advance of the construction process and on-going, so the City of Stockton, landowner, or Project proponent is not left with an “urgent” situation that occurs due to the lack of advanced communication and planning.

A Native American monitor, descendant, and an archaeology if recommended by the Native American monitor should oversee reburial in a mutual agreeable location that is not subject to further subsurface disturbance. The Project is located on unceded Northern Valley Yokuts lands.

Geology and Soils Mitigation Measure 3.6-2

The mitigation calls for a qualified paleontologist to evaluate any paleontological resources found during grading and construction activities. However, this mitigation fails to properly conduct pre-construction worker paleontological resource sensitivity training. This training should be required and training documents available for mitigation monitoring.

Greenhouse Gases, Climate Change and Energy Mitigation Measure 3.7-1

The measures proposed to mitigate the greenhouse gases that will be generated are essentially the same as for air quality impacts and treats the Project in a piecemeal way ignoring cumulative impacts. Additionally, by treating the Project as individual projects it is more likely that these individual projects that will not exceed thresholds to require mitigation. Implementation of the Project as discussed in the DEIR will have a significant impact on goals set forth in the City of Stockton Climate Action Plan relating to proposed truck and rail transport associated with the 6 million plus square feet of industrial warehousing.

There were no mitigation measures proposed to reduce energy usage such as energy efficient lighting, use of other energy efficient equipment that are in use in a typical warehousing/commercial/industrial settings, installation of solar photovoltaic systems to equal the Project’s energy needs, using electric on-site equipment warehousing equipment such as forklifts and yard trucks, and constructing electric truck charging and plug in stations suitable for heavy duty trucks and refrigeration units to reduce idling exhaust emissions.

This is a speculative project that will significantly impact environmental resources. Additional greenhouse gas, climate change and energy mitigations are necessary so that Stockton residents do not bear solely the environmental burdens associated with the proposed Project.

The vehicle miles travelled that the proposed Project(s) would generate was not disclosed. We specifically requested this information in our NOP/IS comment letter.

By July 1, 2020, public agencies evaluating the impact of development projects are required to use vehicle miles traveled (VMT) to evaluate transportation impacts. This change removes the focus on traffic at intersections and roadways immediately around project sites. Instead, the focus will be on how new development projects may influence the overall amount of automobile use.¹⁰

Hydrology and Water Quality

The DEIR deemed Impact 3.9-2 as less than significant when in fact the construction of the proposed Project and the paving over of 350 acres has the potential to interfere substantially with groundwater recharge associated with the Project area and current land use such that the Project may impede sustainable groundwater management of the basin. The DEIR identified the Subbasin incorrectly as the Eastern San Joaquin River Groundwater Subbasin when the name of the Subbasin in which the Project is located is the Eastern San Joaquin Groundwater Subbasin. The Subbasin is critically overdrafted and the location of the current agricultural fields presents an opportunity to use flood flows to recharge our overdrafted aquifer and provide downstream flood protection. Lands adjacent to natural waterways are particularly good for cost effective groundwater recharge projects.

Furthermore, the DEIR deemed Impact 3.9-3 relating to drainage pattern changes due to the addition of impervious surfaces as less than significant without calculations estimating runoff under climate change scenarios with infrequent atmospheric river rainfall events causing substantial surface runoff, flooding, or surface runoff of polluted stormwater. Climate changes relating to global warming must be carefully considered especially relating to changes to precipitation patterns. Paved land has much higher runoff coefficients, as compared to the existing agricultural land use which has been shown to attenuate runoff and reduce flood risks.

In fact, an additional General Plan Amendment and Rezoning of two areas will be necessary for the proposed Project due to limitations caused by the floodway along French Camp Slough. This floodway is a natural floodplain and a nexus facilitating the flow of floodwater from the waterway to adjacent lands lessening the flood risk to downstream residential areas.

Additional open space mitigation is needed to provide more floodway room for the North Fork of Little John's Creek along the southern boundary of the proposed Project.

Mitigation Measure 3.9.2 requires that prior to issuance of grading permits, the applicant and/or future Project proponent must submit a site-specific Project Stormwater Quality Control Plan to specify BMPs the Project will use to comply with State water quality regulations including those related to City of Stockton's Stormwater Management Plan. French Camp Slough joins the San Joaquin River in Stockton. The San Joaquin River is an impaired waterway and subject to regular hazardous algal blooms that are associated with heavy pollutant loading. The DEIR failed to fully disclose how the planned construction and operation of the 13 projects would result in a coordinated site plan to ensure that site runoff does not further impact the quality of water in our streams and rivers.

¹⁰ <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-02-26-transmittal-and-draft-vmt-focused-tisg.pdf>

Mitigation Measure 3.9-3 requires that prior to issuance of grading permits, the applicant shall obtain the local National Flood Insurance Program administrating community's approval and a CLOMR-based on fill followed by a Map update request. The DEIR stated that most of the Project site is located within the 100-Year designated FEMA Flood Zone and portions of the Project site adjacent to the French Camp Slough are designated within the Regulatory Floodway. Development within Regulatory Floodways are prohibited. The Project site is reportedly not within a 200-year flood zone. Senate Bill 5 requires all urban and urbanizing areas in the Sacramento and San Joaquin Valleys to achieve 200-year flood protection to approve development. The new law restricts approval of development after 2016 if "adequate progress" towards achieving this standard is not met. Urban and urbanizing areas protected by State-Federal project levees cannot use "adequate progress" as a condition to approve development after 2025. The City of Stockton just this year made a finding of adequate progress.

The DEIR stated that according to Stockton Municipal Code Title 16.90, new developments may be permitted in areas "of potential flooding of three feet or less from a storm event that has a 1-in-200 chance of occurring in any given year, from sources other than local drainage, in urban or urbanizing areas..." An analysis by a local engineering firm included in the DEIR as a draft report concluded that flooding of 3 feet or less is expected and they recommended elevation of grade. Whether or not this analysis evaluated an ever-increasing intensity of rainfall resulting from climate change conditions is unknown at this time. Greenhouse gases are responsible for climate change which the proposed Project failed to mitigate.

Transportation and Circulation Mitigation Measure 3.13-1

The proposed Mitigation Measure 3.3-1 includes some possible measures related to the San Joaquin Valley Air Pollution Control District Rule 9410¹¹ such as "incentives for project employees to utilize alternative transportation options such as buses, bicycles or electric vehicles." Rule 9410 is required whenever an employer exceeds 100 regular employees at a worksite. The treatment in the DEIR of the Project as one entity for analysis of impacts would infer that in the future once any of the individual 13 projects combined reach the threshold of 100 employees, a Trip Reduction Plan will be required.

The San Joaquin Valley Air Pollution Control District is the regulatory agency that is involved in the implementation of transportation demand management (TDM) strategies related to transport to the workplace from home. This transportation effort is small compared to the truck trips related to the operation of the proposed Project and effects on regional roadways. Mitigation should be required for ongoing impacts to city roadways relating to increased heavy duty truck travel which significantly increases roadway maintenance frequency and costs, especially related to the proposed noise reducing pavement.

The same issues related to evaluating impacts for a project that is not well defined has made impossible an environmental analysis of local and regional transportation impacts. A railroad overpass proposed was not included in the mitigation measures.

The DEIR did not adequately describe existing and future transportation conditions relating to the vehicle mile traveled (VMT) associated with a logistical warehouse project of this size with access to rail and two highways. A detailed VMT analysis should have been conducted to determine if the Project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Without the Project there is no need for the construction of an overpass of the UPRR line.

¹¹ <https://www.valleyair.org/Programs/Rule9410TripReduction/>

The DEIR did not include a market analysis to investigate the need for up to 6,091,551 square feet of “employment-generating” industrial uses considering recently approved similar projects under development. There is active recruiting for existing warehouse jobs in our area which pay \$15-\$20/hour (\$600 to \$800/week) for full time work.

Governor Newsom recently issued Executive Order N 82-20 announced on October 7, 2020¹²:

“The science is clear that, in our existential fight against climate change, we must build on our historic efforts in energy and emissions and focus on our lands as well. California’s beautiful natural and working lands are an important tool to help slow and avert catastrophic climate change, and today’s executive order provides important new tools to take on this existential threat.”

Ultimately, the lead agency will examine each of the environmental issues listed in the checklist... and decide whether the proposed Project has the potential to have a significant impact and what if any mitigation is to be required. If approved, a development agreement that is transferrable will be established without any defined Project. Without a defined Project it is very difficult to determine impacts which will result from this warehousing development. No clear responsible party for proposed mitigation measures was identified in the DEIR. Mitigation measures to be performed have mixed responsibilities: Project proponent vs. landowner vs. the persons responsible for excavation work throughout the DEIR.

Land use is within the City of Stockton’s regulatory purview and while the City of Stockton is not expected to enforce CARB or SJVAPCD standards. The City of Stockton’s choice to approve projects with intense trucking and rail components means that the City of Stockton is adding new emission sources – like an attractive nuisance – which will increase the exposure of our residents to pollution. Mitigation is needed to reduce the impact of the Project and should be paid for by the developer not the residents of Stockton.

This Project is not vital for our recovery and the DEIR failed to provide sufficient details to determine the document’s adequacy to describe the environmental costs associated with the Project.

Once again, please add the Delta-Sierra Group to your CEQA notification list. The requirements for public noticing are changing next year and we would welcome a conversation to provide our input. If you have any questions or wish to discuss ways that the City of Stockton could improve public outreach, you may contact me by email at mebeth@outlook.com.

Sincerely,



Mary Elizabeth M.S., R.E.H.S.

Cc:

Sierra Club Mother Lode Chapter
Catholic Charities, Env. Justice Stockton Diocese
Restore the Delta
Central California Asthma Collaborative
Central Valley Air Quality Coalition
Little Manilla Rising
Environmental Justice for Water

Northern Valley Yokuts
NAHC
California Air Resources Board
Office of Attorney General – Department of Justice
California Department of Conservation
San Joaquin County Farm Bureau
Center for Biological Diversity

¹² <https://www.gov.ca.gov/2020/10/07/governor-newsom-launches-innovative-strategies-to-use-california-land-to-fight-climate-change-protect-biodiversity-and-boost-climate-resilience/>



SIERRA CLUB

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City of Stockton
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Stockton CA 95202
via email: Nicole.Moore@stocktonca.gov.

10.27.2020

Re: South Stockton Commerce Center Project Notice of Preparation and Initial Study

The Delta-Sierra Group has reviewed the Initial Study for the planned industrial development located off Airport Way immediately north of the confluence with French Camp Slough and the North Fork of Little John's Creek. French Camp Slough continues through the southwestern part of the five parcels encompassing 437.45 acres of agricultural lands.

Setting



The five parcels are summarized below to help with understanding the discussion regarding General Plan Zoning Maps vs General Plan designations and a zone change designation. The information was obtained from San Joaquin County Assessors and City of Stockton Interactive Zoning Map¹. There seems to be some discrepancies between the addresses cited in the Initial Study and City of

¹ <https://stocktonca.mapgeo.io/datasets/properties?abuttersDistance=100&latlng=37.973764%2C-121.284422&themes=%22%5B%5C%22zoning%5C%22%5D%22&zoom=12>

Stockton records (shown within parentheses). Additionally, there seems to be some discrepancies related to acreage sizes as illustrated below (shown within parentheses).

Parcel Table

APN	Address	Acres	Land value (\$ SJC	Current SJC assessed use	City Zone	City General Plan
77-110-040	6110 S. Airport Way	218.29	4,357,515 (221.54 ac)	Irrigated row crop	IL (8210 S. Airport)	Industrial
177-100-030	7070 S. Airport Way	76.03	1,660,790 (80.81)	Irrigated row crop	OS (1865 E French Camp Road	Open Space/ Agricultural
177-110-050	6122 S. Airport Way	3.27	65,305	Irrigated row crop	IL (8222 S AIRPORT WY)	Industrial
201-020-010	9091 S. State Route FR 99	75.07	1,550,424 (73.74 ac)	Irrigated row crop	IL	Industrial
177-050-090	8606 S. Airport Way	64.79	1,289,060	Irrigated row crop	RH (Residential, High Density)	Industrial

The conversion of this especially important agricultural land not only will have an effect on local food security, as row crops are food crops, but will significantly affect existing flood buffering, wildlife habitat, and water infiltration. The environmental analysis of the no project alternative must characterize the positive attributes which will be lost, if developed as described in the Initial Study. Removing agricultural land removes the natural climate change attenuator that soils can serve also affecting the City's ability to reduce carbon dioxide levels in the atmosphere through carbon sequestration.

The Draft Environmental Report must include a market analysis to investigate the need for up to 6,091,551 square feet of "employment-generating" industrial uses considering recently approved similar projects under development. This maximum square footage is based on the Floor Area Ratio (FAR) of 0.47 for industrial uses including general light industrial, industrial park, warehousing, mini-warehouse, high cube transitional and short-term storage warehouse, high-cube fulfillment center warehouse, high-cube parcel hub warehouse and light-cube cold storage warehouse. There is active recruiting for existing warehouse jobs in our area which pay \$15-\$20/hour (\$600 to \$800/week) for full time work.

Farmland of Statewide Importance (S)

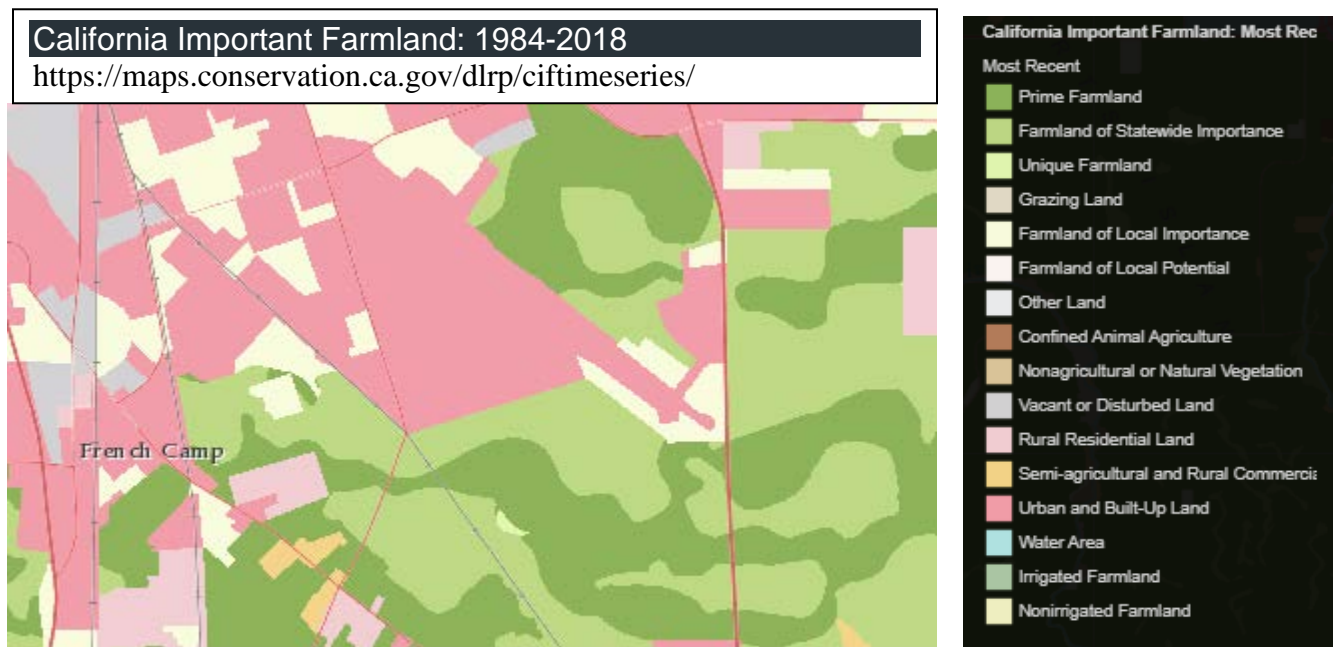
Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture.

Unique Farmland (U)

Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California.

Farmland of Local Importance (L)

Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. In some counties, Confined Animal Agriculture facilities are part of Farmland of Local Importance (PDF), but they are shown separately.



Climate changes relating to global warming must be carefully considered especially relating to changes to precipitation patterns. Paved land has much higher runoff coefficients, as compared to the existing agricultural land use which has been shown to attenuate runoff and reduce flood risks. The draft EIR must include a full flood hazard analysis to the residential area downstream of the proposed outfall to French Camp Slough.

Governor Newsom recently issued Executive Order N 82-20 announced on October 7, 2020²:

“The science is clear that, in our existential fight against climate change, we must build on our historic efforts in energy and emissions and focus on our lands as well. California’s beautiful natural and working lands are an important tool to help slow and avert catastrophic climate change, and today’s executive order provides important new tools to take on this existential threat.”

Agricultural land mitigation only ensures that some other agricultural land cannot be easily developed through a conservation easement. Agricultural land mitigation does not create new

² <https://www.gov.ca.gov/2020/10/07/governor-newsom-launches-innovative-strategies-to-use-california-land-to-fight-climate-change-protect-biodiversity-and-boost-climate-resilience/>

agricultural land. Once the land is developed it is unlikely ever to return to food production. The costs associated with the loss of food production land must be analyzed in the draft EIR

The conversion of this land to non-agricultural uses will create additional development pressures on the surrounding farmland and this must be evaluated in the draft EIR.

Air Quality

The conversion of irrigated lands to paved industrial uses accessing SR-99, I-5, the Stockton Metropolitan Airport and rail lines is expected to potentially impact air quality in South Stockton. When considering mitigation measures please refer to the CARB Technical Advisory Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways³.

(Adjust Font size) When assessing the Project's air pollution emissions from mobile sources use the emission factors found in CARB's latest EMFAC2017. These emission factors were updated from 2014 to provide the best available estimates of emission along with other site-specific variables which will be difficult to determine since the project is conceptual. Please include purple monitor data when evaluating local air quality conditions in the vicinity. Please provide descriptions of all zoned uses for the projects including general light industrial, industrial park, warehousing, mini-warehouse, high cube transitional and short-term storage warehouse, high-cube fulfillment center warehouse, high-cube parcel hub warehouse and light-cube cold storage warehouse. Any development agreements that would limit the amount of various zoned uses must be fully disclosed with complete descriptions of associated air emissions scenarios.

Ultimately, "the lead agency will examine each of the environmental issues listed in the checklist... and decide whether the proposed project has the potential to have a significant impact". This statement was found for each of the CEQA checklist type. The City of Stockton recently approved the conversion of agricultural land for a logistic center and made the finding that air quality will be improved.

If approved, a development agreement that is transferrable will be established without any defined project. Without a defined project it is very difficult to determine impacts which may result from development approved based on zoning. On previous similar projects there have been requests that a reasonable trip length for off-site heavy-heavy duty truck travel be used when analyzing emissions. The San Joaquin Valley AD will not be able to attain health based federal air quality standards without reductions in emissions from HHD which is the single largest source of NOX emissions in the San Joaquin Valley. Operational emissions for on-site sources must also be quantified.

EPA Air Quality Status⁴

pollutant	effec_rede	nonattain	class	part	population
1-Hour Ozone (1979)	- -	Yes	Extreme	W	685306
8-Hour Ozone (1997)	- -	Yes	Extreme	W	685306
8-Hour Ozone (2008)	- -	Yes	Extreme	W	685306
8-Hour Ozone (2015)	- -	Yes	Extreme	W	685306
Carbon Monoxide (1971)	6/1/1998		Moderate <= 12.7ppm	P	373545
PM-10 (1987)	12/12/2008		Serious	W	685306
PM-2.5 (1997)	- -	Yes	Serious	W	685306
PM-2.5 (2006)	- -	Yes	Serious	W	685306
PM-2.5 (2012)	- -	Yes	Moderate	W	685306

³ https://ww3.arb.ca.gov/ch/rd_technical_advisory_final.pdf

⁴ https://www3.epa.gov/airquality/greenbook/anayo_ca.html

Community air quality can be linked to vehicular emissions

The SJVAPCD 2018 PM 2.5 Plan identifies how reductions can be achieved, through implementation of the CARB Statewide Truck and Bus Regulation. The regulation will apply to all truck fleets operating within California, including any fleets that may be associated with the proposed project. As stated, the regulation will require conformance with the identified CARB near-zero truck NOx emission standard.

Again, evaluating impacts is challenging for a project that is not well defined. Recently, the City of Stockton used CalEEMod fleet mix defaults to estimate a project's mobile source air pollutant emissions and was notified that the mileage used required revisions. When performing air emission analyses and traffic impact studies a reasonable estimate of heavy-duty truck trips commensurate with the proposed project's size and location is necessary. Please be very clear and concise when disclosing the parameters used during emissions and traffic analyses.

Land use is within the City's regulatory purview and while the City is not expected to enforce CARB or SJVAPCD standards the City's choice to approve projects with intense trucking and rail components means that it is adding new sources – like an attractive nuisance – which will increase the exposure of our residents to pollution. Mitigation is needed to reduce the impact of the project and should be paid for by the developer not the residents of Stockton.

Transportation

The same issues with regard to evaluating impacts for a project that is not well defined will confound the environmental analysis particularly if it is difficult to ascertain the estimates used when performing the transportation analyses.

The EIR will describe existing and future transportation conditions and will analyze any potential conflicts with programs, plans, ordinances or policies addressing the circulation system. Potential impacts associated with site access, and on-site circulation will also be addressed in the EIR. A detailed vehicle mile traveled (VMT) analysis will be conducted to determine if the project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). The VMT analysis would be completed consistent with the Office of Planning and Research's (OPR's) Technical Advisory on Evaluating Transportation Impacts in CEQA.

If the City of Stockton uses a full build out for the general plan designations then it is likely that regardless of the VMT analysis which is to be undertaken, the City will find: Impact TRANS-1: Consistency with CEQA Guidelines Section 15064.3(b). Compared with existing land use designations, the project would generate less VMT and would therefore be consistent with CEQA Guidelines which is the language used in a similar logistic industrial center. The existing use of the property is the no project alternative and should be used to determine whether or not the project will have a significant impact. Additionally, please provide at your earliest convenience the VMT analysis which the City must be developing consistent with CEQA guidance:

By July 1, 2020, public agencies evaluating the impact of development projects are required to use vehicle miles traveled (VMT) to evaluate transportation impacts. This change removes the focus on traffic at intersections and roadways immediately around project sites. Instead,

the focus will be on how new development projects may influence the overall amount of automobile use.⁵

The NOP did not specify what City of Stockton guidance would be used but it is likely not to be the Standards of the City's Transportation Impact Guidelines used in the analysis of a similar project earlier this year.

Tribal Cultural Resources

Please incorporate a paid tribal representative to be present during land disturbance activities recognizing tribal sovereignty. Two local Tribes include the United Auburn Indian Community and the Northern Valley Yokuts which we are in communication with.

Greenhouse Gas Reduction Requirements

The City of Stockton Climate Action Plan adopted in 2014 included the following statement which is even more true now that our community suffers from the economic and emotional impacts relating to the Covid-19 pandemic:

The CAP would require substantial effort on the part of the entire Stockton community, including residents and business, schools, the San Joaquin Regional Transit District, other public entities, and the Stockton municipal government at a time when residents, businesses, and public agencies are struggling to pay current bills, keep businesses open, and provide basic services. This plan, if fully implemented, would result in a 20% reduction in per capita GHG emission from 2005 to 2020.

Many of the measures included in the CAP would result in long-term economic, environmental, health and other benefits for the City and its residents and businesses in addition to the expected GHG emission reductions.

Vegetation has been shown to be effective at reducing energy and air pollutant transport. Any vegetation associated with the project or subsequent development must be paid for and maintained by the applicant not the residents of Stockton.

Removing agricultural land removes the natural climate change attenuator that soils can serve and must be accounted when evaluating greenhouse gas emissions.

CEQA is clear that "uniformly applicable development policies or standards" need to be considered in the analysis of environmental effects and their significance and the need for additional mitigation measures. These additional measures are those required by the lead agency to protect public health and the environment that may be harmed as a result of the approval of the project. Relying on state guidance which was developed prior to the project and did not consider the project's impact is not sufficient when parts of our community is unequally burdened by negative environmental impacts. All zip codes are not created equal.

This Project is not vital for our recovery and we hope that the draft environmental impact analysis will be sufficiently detailed so that the residents of Stockton can determine the document's adequacy to describe the environmental costs associated with the project. Cost to Benefits ratio must be clearly described.

Please add the Delta-Sierra Group to your CEQA notification list. We became aware of the project through a CEQAnet link from a colleague. Please let us know if there is to be any public meeting

⁵ <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-02-26-transmittal-and-draft-vmt-focused-tisg.pdf>

regarding this project and when the draft environmental impact report becomes available to review. If you have any questions you may contact me by email mebeth@outlook.com.

Sincerely,

A handwritten signature in dark ink, appearing to read 'MEBETH' in a stylized, cursive script.

Mary Elizabeth M.S., R.E.H.S.

Cc: Mother Lode Chapter

Catholic Charities, Environmental Justice Stockton Diocese

Restore the Delta

Central California Asthma Collaborative

Central Valley Air Quality Coalition

Little Manilla Rising

Environmental Justice Coalition for Water



SIERRA CLUB

DELTA-SIERRA GROUP
MOTHER LODE CHAPTER

*Delta-Sierra Group
Mother Lode Chapter
P.O. Box 9258
Stockton CA 95208*

Nicole Moore
City of Stockton
345 N. El Dorado Street
Stockton CA 95202
via email: Nicole.Moore@stocktonca.gov.

10.27.2020

Re: South Stockton Commerce Center Project Notice of Preparation and Initial Study

The Delta-Sierra Group has reviewed the Initial Study for the planned industrial development located off Airport Way immediately north of the confluence with French Camp Slough and the North Fork of Little John's Creek. French Camp Slough continues through the southwestern part of the five parcels encompassing 437.45 acres of agricultural lands.

Setting



The five parcels are summarized below to help with understanding the discussion regarding General Plan Zoning Maps vs General Plan designations and a zone change designation. The information was obtained from San Joaquin County Assessors and City of Stockton Interactive Zoning Map¹. There seems to be some discrepancies between the addresses cited in the Initial Study and City of

¹ <https://stocktonca.mapgeo.io/datasets/properties?abuttersDistance=100&latlng=37.973764%2C-121.284422&themes=%22%5B%5C%22zoning%5C%22%5D%22&zoom=12>

Stockton records (shown within parentheses). Additionally, there seems to be some discrepancies related to acreage sizes as illustrated below (shown within parentheses).

Parcel Table

APN	Address	Acres	Land value (\$ SJC	Current SJC assessed use	City Zone	City General Plan
77-110-040	6110 S. Airport Way	218.29	4,357,515 (221.54 ac)	Irrigated row crop	IL (8210 S. Airport)	Industrial
177-100-030	7070 S. Airport Way	76.03	1,660,790 (80.81)	Irrigated row crop	OS (1865 E French Camp Road	Open Space/ Agricultural
177-110-050	6122 S. Airport Way	3.27	65,305	Irrigated row crop	IL (8222 S AIRPORT WY)	Industrial
201-020-010	9091 S. State Route FR 99	75.07	1,550,424 (73.74 ac)	Irrigated row crop	IL	Industrial
177-050-090	8606 S. Airport Way	64.79	1,289,060	Irrigated row crop	RH (Residential, High Density)	Industrial

The conversion of this especially important agricultural land not only will have an effect on local food security, as row crops are food crops, but will significantly affect existing flood buffering, wildlife habitat, and water infiltration. The environmental analysis of the no project alternative must characterize the positive attributes which will be lost, if developed as described in the Initial Study. Removing agricultural land removes the natural climate change attenuator that soils can serve also affecting the City's ability to reduce carbon dioxide levels in the atmosphere through carbon sequestration.

The Draft Environmental Report must include a market analysis to investigate the need for up to 6,091,551 square feet of "employment-generating" industrial uses considering recently approved similar projects under development. This maximum square footage is based on the Floor Area Ratio (FAR) of 0.47 for industrial uses including general light industrial, industrial park, warehousing, mini-warehouse, high cube transitional and short-term storage warehouse, high-cube fulfillment center warehouse, high-cube parcel hub warehouse and light-cube cold storage warehouse. There is active recruiting for existing warehouse jobs in our area which pay \$15-\$20/hour (\$600 to \$800/week) for full time work.

Farmland of Statewide Importance (S)

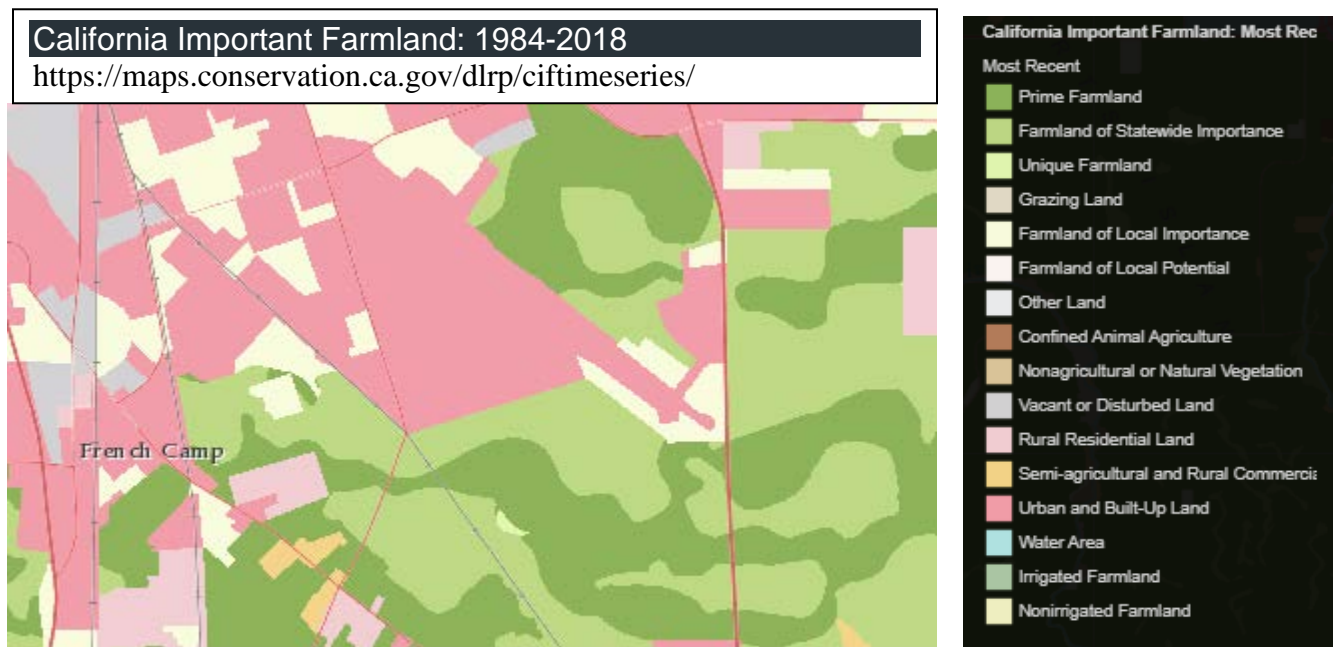
Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture.

Unique Farmland (U)

Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California.

Farmland of Local Importance (L)

Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. In some counties, Confined Animal Agriculture facilities are part of Farmland of Local Importance (PDF), but they are shown separately.



Climate changes relating to global warming must be carefully considered especially relating to changes to precipitation patterns. Paved land has much higher runoff coefficients, as compared to the existing agricultural land use which has been shown to attenuate runoff and reduce flood risks. The draft EIR must include a full flood hazard analysis to the residential area downstream of the proposed outfall to French Camp Slough.

Governor Newsom recently issued Executive Order N 82-20 announced on October 7, 2020²:

“The science is clear that, in our existential fight against climate change, we must build on our historic efforts in energy and emissions and focus on our lands as well. California’s beautiful natural and working lands are an important tool to help slow and avert catastrophic climate change, and today’s executive order provides important new tools to take on this existential threat.”

Agricultural land mitigation only ensures that some other agricultural land cannot be easily developed through a conservation easement. Agricultural land mitigation does not create new

² <https://www.gov.ca.gov/2020/10/07/governor-newsom-launches-innovative-strategies-to-use-california-land-to-fight-climate-change-protect-biodiversity-and-boost-climate-resilience/>

agricultural land. Once the land is developed it is unlikely ever to return to food production. The costs associated with the loss of food production land must be analyzed in the draft EIR

The conversion of this land to non-agricultural uses will create additional development pressures on the surrounding farmland and this must be evaluated in the draft EIR.

Air Quality

The conversion of irrigated lands to paved industrial uses accessing SR-99, I-5, the Stockton Metropolitan Airport and rail lines is expected to potentially impact air quality in South Stockton. When considering mitigation measures please refer to the CARB Technical Advisory Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways³.

(Adjust Font size) When assessing the Project's air pollution emissions from mobile sources use the emission factors found in CARB's latest EMFAC2017. These emission factors were updated from 2014 to provide the best available estimates of emission along with other site-specific variables which will be difficult to determine since the project is conceptual. Please include purple monitor data when evaluating local air quality conditions in the vicinity. Please provide descriptions of all zoned uses for the projects including general light industrial, industrial park, warehousing, mini-warehouse, high cube transitional and short-term storage warehouse, high-cube fulfillment center warehouse, high-cube parcel hub warehouse and light-cube cold storage warehouse. Any development agreements that would limit the amount of various zoned uses must be fully disclosed with complete descriptions of associated air emissions scenarios.

Ultimately, "the lead agency will examine each of the environmental issues listed in the checklist... and decide whether the proposed project has the potential to have a significant impact". This statement was found for each of the CEQA checklist type. The City of Stockton recently approved the conversion of agricultural land for a logistic center and made the finding that air quality will be improved.

If approved, a development agreement that is transferrable will be established without any defined project. Without a defined project it is very difficult to determine impacts which may result from development approved based on zoning. On previous similar projects there have been requests that a reasonable trip length for off-site heavy-heavy duty truck travel be used when analyzing emissions. The San Joaquin Valley AD will not be able to attain health based federal air quality standards without reductions in emissions from HHD which is the single largest source of NOX emissions in the San Joaquin Valley. Operational emissions for on-site sources must also be quantified.

EPA Air Quality Status⁴

pollutant	effec_rede	nonattain	class	part	population
1-Hour Ozone (1979)	- -	Yes	Extreme	W	685306
8-Hour Ozone (1997)	- -	Yes	Extreme	W	685306
8-Hour Ozone (2008)	- -	Yes	Extreme	W	685306
8-Hour Ozone (2015)	- -	Yes	Extreme	W	685306
Carbon Monoxide (1971)	6/1/1998		Moderate <= 12.7ppm	P	373545
PM-10 (1987)	12/12/2008		Serious	W	685306
PM-2.5 (1997)	- -	Yes	Serious	W	685306
PM-2.5 (2006)	- -	Yes	Serious	W	685306
PM-2.5 (2012)	- -	Yes	Moderate	W	685306

³ https://ww3.arb.ca.gov/ch/rd_technical_advisory_final.pdf

⁴ https://www3.epa.gov/airquality/greenbook/anayo_ca.html

Community air quality can be linked to vehicular emissions

The SJVAPCD 2018 PM 2.5 Plan identifies how reductions can be achieved, through implementation of the CARB Statewide Truck and Bus Regulation. The regulation will apply to all truck fleets operating within California, including any fleets that may be associated with the proposed project. As stated, the regulation will require conformance with the identified CARB near-zero truck NOx emission standard.

Again, evaluating impacts is challenging for a project that is not well defined. Recently, the City of Stockton used CalEEMod fleet mix defaults to estimate a project's mobile source air pollutant emissions and was notified that the mileage used required revisions. When performing air emission analyses and traffic impact studies a reasonable estimate of heavy-duty truck trips commensurate with the proposed project's size and location is necessary. Please be very clear and concise when disclosing the parameters used during emissions and traffic analyses.

Land use is within the City's regulatory purview and while the City is not expected to enforce CARB or SJVAPCD standards the City's choice to approve projects with intense trucking and rail components means that it is adding new sources – like an attractive nuisance – which will increase the exposure of our residents to pollution. Mitigation is needed to reduce the impact of the project and should be paid for by the developer not the residents of Stockton.

Transportation

The same issues with regard to evaluating impacts for a project that is not well defined will confound the environmental analysis particularly if it is difficult to ascertain the estimates used when performing the transportation analyses.

The EIR will describe existing and future transportation conditions and will analyze any potential conflicts with programs, plans, ordinances or policies addressing the circulation system. Potential impacts associated with site access, and on-site circulation will also be addressed in the EIR. A detailed vehicle mile traveled (VMT) analysis will be conducted to determine if the project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). The VMT analysis would be completed consistent with the Office of Planning and Research's (OPR's) Technical Advisory on Evaluating Transportation Impacts in CEQA.

If the City of Stockton uses a full build out for the general plan designations then it is likely that regardless of the VMT analysis which is to be undertaken, the City will find: Impact TRANS-1: Consistency with CEQA Guidelines Section 15064.3(b). Compared with existing land use designations, the project would generate less VMT and would therefore be consistent with CEQA Guidelines which is the language used in a similar logistic industrial center. The existing use of the property is the no project alternative and should be used to determine whether or not the project will have a significant impact. Additionally, please provide at your earliest convenience the VMT analysis which the City must be developing consistent with CEQA guidance:

By July 1, 2020, public agencies evaluating the impact of development projects are required to use vehicle miles traveled (VMT) to evaluate transportation impacts. This change removes the focus on traffic at intersections and roadways immediately around project sites. Instead,

the focus will be on how new development projects may influence the overall amount of automobile use.⁵

The NOP did not specify what City of Stockton guidance would be used but it is likely not to be the Standards of the City's Transportation Impact Guidelines used in the analysis of a similar project earlier this year.

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Cc: Mother Lode Chapter

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Central California Asthma Collaborative

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To: City of Stockton Planning Commissioners

From: Mary Elizabeth, M.S., R.E.H.S.

Date: April 13, 2023

Re: South Stockton Commerce Center Final EIR and Associated Documents

Greetings Commissioners,

The approval and recommended certification of the FEIR and associated documents for the South Stockton Commerce Center should be postponed until a workshop can be scheduled to explain how the project with 200+ acres of impervious surface will not contribute to the flood risks in South Stockton. Additionally, the air emission and projected traffic is based on speculation with no data indicating that market forces will support the assumptions; thusly the impacts and approved ministerially mitigation measures may be significantly undersized. Even though the DEIR stated that a development agreement would be prepared and requested by a commentor on the DEIR, no development agreement is included. The development agreement could include limitations so that the project impacts would be restricted by the type of operation allowed.

I submitted comments for this project on behalf of the Delta-Sierra Group of the Sierra Club regarding the Notice of Preparation/Initial Study and the Draft Environmental Impact Report. I have attached those comments for reference. Additionally, there has been “ad hoc” communication between the Sierra Club and the City of Stockton Staff regarding the listed mitigation measures in the attached settlement documents. You should have been provided a supplemental staff report and addendum changing the language of the Final Environmental Impact Report (FEIR) to reflect settlement agreement language between the Sierra Club and the City of Stockton as well as with the Attorney General’s Office relating to the Mariposa Industrial Project; however we learned at the 4.10.2023 “ad hoc” meeting that these documents will be provided to you all in an “around the bench” memo in paper form. “Around the bench memos” are generally provided only to those seated in the dais, although I did request that copies be made to members of the public attending the meeting. The size and scope of Project impacts warrant additional study time and opportunities to develop and ask questions about mitigation measures that would further reduce the “Unavoidable Significant Impacts” that will occur should this Project be approved based on available documents.

Remaining Air Quality Impacts

This is a speculative project meant to tie up the property for an indefinite period of time, depending on market forces. Master Response 4 (Air Quality/Indirect Source Review-Rule 9510) in the FEIR states that “Because there is not an end user, site plan review, architectural plan, etc., it is not possible to reasonably calculate the emissions or onsite mitigation of the end user/site/building, making it impossible to calculate the offsite mitigation needs.” The City also states in this master response that “It is anticipated that the best design measures, including the State of California Department of Justice’s “Warehouse Projects: Best Practices and Mitigation Measures” would be **considered** for incorporation into site and/or building design as determined

appropriate and feasible by the SJVAPCD and Engineer/Architect at the time of site design." Air quality monitoring must be required by the City and included as a mitigation measure to ensure that the operational impacts described are mitigated to required levels so as not to significantly increase the pollutant burden, especially since there are proposed significant and unmitigated air quality impacts that Stockton residents must bear.

In Mitigation Measure 3.3-1 of the DEIR, the City states that the project would comply with SJVAPCD Rule 9510 as the project is built out. This rule requires the applicant to reduce the project's operational NO_x and PM₁₀ emissions by 33.3 and 50 percent, respectively. This rule also requires the applicant to reduce the project's construction NO_x and PM₁₀ emissions by 20 and 45 percent, respectively. To achieve these reductions, the applicant must pay into an offsite mitigation fund managed by the SJVAPCD for any emission reductions required by the rule that are not achieved through on-site emission reductions.

The City should implement **all feasible on-site mitigation measures before paying for the offsite mitigation measures**. The mitigation measures listed in the CARB DEIR comment letter and the State of California Department of Justice's "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act"¹ should be included in Mitigation Measure 3.3-1. Paying a fee in lieu of mitigation adds to the pollutant burden of Stockton residents, because this mitigation fee may not be used in our County at all. Mitigation measures must be specified that can be implemented to reduce the project's air quality impacts rather than developing mitigation measures after the FEIR has been certified. Labeling compliance with CARB, the SJVAPCD or City of Stockton regulations as mitigation measures should be avoided.

Disclosing air pollution from the entire expected length of truck trips must be clearly presented and an explanation for the operational trip length be provided. CEQA requires full public disclosure of a project's anticipated truck trips, which entails calculating truck trip length based on likely truck trip destinations, rather than the distance from the facility to the edge of the air basin, local jurisdiction, or other truncated endpoint. All air pollution associated with the project must be considered, regardless of where those impacts occur.

In fact, while the City has disclosed a proposed mix of uses as follows, there is no way to conclude that the impacts are "conservative" and that is that the actual impacts could be less and what is proposed is over mitigated. The traffic assumptions input into the modeling utilize ITE codes as follows:

- ITE Land Use Code 110 – General Light Industrial: 7%
- ITE Land Use Code 130 – Industrial Park: 15%
- ITE Land Use Code 150 – Warehousing: 15%
- ITE Land Use Code 151 – Mini-Warehouse: 3%
- ITE Land Use Code 154 – High-Cube Transload & Short-Term Storage Warehouse: 15%
- ITE Land Use Code 155 – High-Cube Fulfillment Center Warehouse: 15%
- ITE Land Use Code 156 – High-Cube Parcel Hub Warehouse: 15%
- ITE Land Use Code 157 – High-Cube Cold Storage Warehouse: 15%

¹ <https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf> Updated September 2022.

The Project proposes an increased land use density, which would result in increased travel activity, including vehicles (cars and trucks), bicycle, pedestrian, and potentially transit trips, conceivably from Manteca or Stockton? The Department of Justice's "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act"¹ recommends that agreements be established for transit services before referencing as a mitigation measure. Sidewalks on Airport Way and along all the roads in the complex will help with worker health opportunities and must ensure connectivity with the Airport. Bicycle setbacks on Project property should be included in this mitigation measure since there are no planned road improvements other than an internal signaling.

According to the Traffic Study prepared for the proposed Project would increase automobile VMT by approximately 22,633 net new daily trips. As I indicated in my comments on the DEIR:

The San Joaquin Valley Air Pollution Control District is the regulatory agency that is involved in the implementation of transportation demand management (TDM) strategies related to transport to the workplace from home. This transportation effort is small compared to the truck trips related to the operation of the proposed Project and effects on regional roadways. Mitigation should be required for ongoing impacts to city roadways relating to increased heavy duty truck travel which significantly increases roadway maintenance frequency and costs, especially related to the proposed noise reducing pavement.

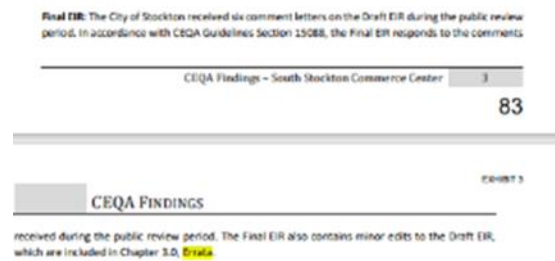
The only disclosure of the operational impacts which I located are as follows:

De Novo Planning Group used fleet mix data from the CalEEMod (v~~2016.3.22~~**2020.4.0**) output for the proposed **Project, Year 2040** gasoline and diesel MPG (miles per gallon) factors for individual vehicle classes as provided by ~~EMFAC2017~~**EMFAC2021**, weighted average MPG factors for gasoline and diesel were derived. Therefore, upon full buildout, the proposed Project would generate operational vehicle trips that would use a total of approximately ~~434~~**399** gallons of gasoline and ~~633~~**508** gallons of diesel per day, or ~~158,363~~**45,694** gallons of gasoline and ~~231,137~~**185,485** gallons of diesel per year.

This FEIR explanation does not address the required disclosure of impacts should the project be constructed next year instead of 2040 nor were truck trips disclosed as is required for a CEQA compliance. This updated information was not vetted before being included in the FEIR. Several DEIR commenters have requested that a revised DEIR be recirculated. At the 4.10.2023 "ad hoc" meeting, I was informed that neither the City nor Project proponents reached out to discuss the concerns of the commenters nor provided information to engage in a dialogue to verify that all concerns were addressed or to determine what remaining were the remaining concerns.

During an "ad hoc" meeting with project proponents and the City of Stockton on 4.10.2023, I was informed that there is an erratum that corrects this 2040-date error.

I was thinking that there must be some other document that I missed, so instead of continuing my comment preparation, I did a search for errata and found the following in the materials presented to the Planning Commission in the 4.13.2023 agenda packet:



Chapter 3.0 Errata includes the following (Pg 3.0-1.9):

ON-ROAD VEHICLES (OPERATION)

The proposed Project would generate vehicle trips during its operational phase. A description of Project operational on-road mobile energy usage is provided below.

According to the Traffic Study prepared for the proposed Project (Fehr & Peers, 2021), and as described in more detail in Section 3.13 of this EIR, the Project would increase automobile VMT by approximately 22,633 net new daily trips. In order to calculate operational on-road vehicle energy usage and emissions, De Novo Planning Group used fleet mix data from the CalEEMod (v2016.3-2020.4.0) output for the proposed Project, Year 2040 gasoline and diesel MPG (miles per gallon) factors for individual vehicle classes as provided by EMFAC2017 and EMFAC2021, weighted average MPG factors for gasoline and diesel were derived. Therefore, upon full buildout, the proposed Project would generate operational vehicle trips that would use a total of approximately 434,499 gallons of gasoline and 633,508 gallons of diesel per day, or 158,36345,694 gallons of gasoline and 231,137,185,485 gallons of diesel per year.

The final EIR should be final not filled with errors and City Staff should have demanded that the corrections be made in the document so that residents do not have to request an “ad hoc” meeting when trying to prepare comments for the CEQA record. There should be at least 30 days to review the “Final EIR” if this is the quality of work that residents are to expect for approval consideration and to allow for some confidence that the FEIR analysis and response to comments is adequate.

The air quality assumptions input into the CalEEMod model for each land use.

- General Heavy Industry: 7%
- Industrial Park: 15%
- Unrefrigerated Warehouse – No Rail: 63%
- Refrigerated Warehouse – No Rail: 15%

Should the refrigerated – cold storage warehouse mix be increased the emissions will significantly increase, as refrigerated warehousing is extremely energy intensive activity with significant associated emissions for operation. If truly seeking a conservative estimate of emissions, the mix would be reflective of market needs in the near term and would not rely on subproject analyses, which may not be widely circulated and may be missed by interested parties, particularly in light of the City’s minimal CEQA outreach.

Developer/Tenant restrictions/lease agreements are especially important as a mitigation measure and/or condition of approval to limit the cold storage warehouse size and associated transportation refrigerated units (TRU) that have substantially higher energy use and emissions.

I noted in the Delta-Sierra Group DEIR comments that there is a proposed grade-separated overpass of the UPRR line and a proposed railroad spur line to provide rail access throughout the Project. Without including some rail specific land use alternatives, the air quality assumptions are incomplete. The FEIR states that “The project proposes to potentially include rail service to up to three large parcels (parcels 2, 3, and 4) within the Project site. A potential railroad spur line would extend east from the UPRR along the Project site’s northern edge providing rail access to the parcels.” Again, rail emissions were not included in the air quality modelling.

The response in the FEIR is especially confusing since there are proposed changes, railroad overpass, rail spurs, possible transit services, yet this is part of the “Master Comments” in response to multiple commentors’ concerns:

Fehr and Peers found that the Project does not propose any new roadways or transportation facilities that would be inconsistent with applicable design standards for the City of Stockton. The Project proposes an increased land use density, which would result in increased travel activity, including vehicle (cars and trucks), bicycle, pedestrian, and potentially transit trips. In order to provide access to and from the Project site, the signalized Airport Way/Commerce Drive intersection will be designed to serve all travel modes and Surface Transportation Assistance Act (STAA) vehicles. These Project-generated trips would be served by existing and planned facilities that are constructed to applicable design standards to serve these travel modes. Therefore, the proposed Project would not result in a change to the vehicle mix or speed of traffic that is not compatible with the design of existing or planned roadways and transportation facilities. This impact would be less than significant.

STAA trucks are very long, weigh a lot, and impact roadways more than smaller trucks and vehicles. The mitigation fees that the City charges for roadways were established in the 1990’s and do not reflect current costs. If the City continues to approve projects with inadequate mitigation fees, Stockton residents will be left with greater backlogged maintenance, as other funds will be directed to subsidize the approved development project impacts.

The California Air Resources Board and I questioned the under-reporting of emissions related to construction activities and the response provided is as follows:

“The proposed Project is anticipated to have an on-site balanced cut and fill; this was confirmed via follow-up correspondence with the Project applicant. Therefore, no mobile source air pollutant emissions from heavy-duty trucks during the Project’s construction grading phase are anticipated.”

This additional follow-up correspondence should have been specifically included in the FEIR and should have explained how flood mitigation grading activities are to occur in the project description AND recirculated for comment. The grading and improvement plans, as well as the storm drainage and building plans for each phase of the Project will be designed in accordance with the recommendations provided in the final geotechnical evaluation which was not provided for public review.

Further Comments

The additional comments I have prepared address the following topics and include excerpts from news quotes that provide important perspectives:

- Climate Change and Flood Protection
- Vulnerable Populations affected by increased precipitation patterns and runoff intensities.
- Flood Protection Funding Challenges
- Public Information and Resident Engagement Process
- FEIR Comment Responses and Overriding Considerations

The land should never have been zoned Commercial/Industrial in the 2040 General Plan that was adopted in 2018 and at a time before our current flooding experience. In January 2023, Stockton received one-half of its annual precipitation in only 17 days after a series of atmospheric rivers hit the region.

How the City handles stormwater drainage in areas not directly attached to the City system is through maintenance districts that have annual assessments. The following is an excerpt from the most recent engineering report²:

For each Zone, the City of Stockton, either directly or by subcontract, shall has the responsibility of establishing an ongoing storm drainage maintenance management entity, to be known as The Storm Drainage Maintenance District Manager. The Storm Drainage Maintenance District Manager shall be responsible for establishing the annual budget; keeping an account of the maintenance and operational administrative costs; administering and performing the storm drainage maintenance, whether directly or by subcontract; paying all fees, utility costs, taxes and any and all other operating costs. The Storm Drainage Maintenance District Manager for each Zone, and/or the Municipal Utilities Department of the City of Stockton, shall provide annually the operating budget, the administrative budget, and the description of maintained improvements to be included in the Annual Engineer's Report.

This Annual Engineer's Report is available on the City of Stockton website but does not include any inspection results or operational issues that may be of concern for example the erosion I observed on the east side of the proposed Project location on 2.19.2023, as shown.

After July 2, 2016, building and zoning code changes apply to all permits issued that include:



² https://www.stocktonca.gov/files/2023-2024_Fiscal_Year_Annual_Engineers_Report.pdf

- increased building setbacks for flood fighting along levees,
- requirements to elevate buildings above the floodplain or use flood-resistant building materials for development in areas identified as flood hazard zones on federal flood maps, and
- streamlining the process of making specific findings for development of residential and commercial land uses.

A "finding" is a conclusion based on facts and commonly required to support the decision to approve a land-use permit. Before an affected project can be approved, findings must be made that the proposal meets the new state flood protection requirements. Whether the City has made such a finding for the project is unclear and as the project will increase runoff – disclosure of the specifications that will be relied upon when planning holding basins is needed before a tentative map is approved.

According to the FEIR:

....the proposed Project is a tentative map at this stage of entitlement. The property owner does not know the end users or any operational characteristics of the end users because what is proposed is simply a subdivision of land with some master improvements that would enable industrial building design and site review by an end user.

Impact 3.9-3: The proposed Project has the potential to alter the existing drainage pattern of the site or area, including the alteration of the course of a river or through the addition of impervious surfaces, in a manner which would result in substantial erosion, siltation, surface runoff, flooding, or polluted runoff. *Deemed to be less than significant requiring no mitigation.*

Impact 3.14-6: The proposed Project has the potential to require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. *Deemed to be less than significant requiring no mitigation.*

Mitigation Measure 3.6-1 (requiring a final Geotechnical Evaluation, and site recommendations) the proposed Project would have a less than significant impact relative to this topic. A preliminary geotechnical evaluation should have been included for public disclosure.

The scope of the drainage basin sizes (Impact 3.14-6) were not discussed except to state that there will be two: 28 and 13 acres (no depths disclosed). According to the DEIR one basin outfall will be located within the northeast area of the basin and the second to French Camp Slough. Two options are being considered for the French Camp Slough: 1) An overland flow discharge where the water will be released into a rock lined structure to slow flow velocities before flowing into French Camp Slough; or 2) A more tradition outfall structure and rock rip rap placed on the banks of French Camp Slough. The environmental effects of this choice were not disclosed nor possible impacts to downstream residents if the first year of operation results in a water year with multiple atmospheric rivers.

At the 4.10.2023 “ad hoc” meeting the staff working on the drainage plan indicated that they had been working on the plan for over a year – yet that plan was not included to provide evidence that the 200+ acres of impervious surfaces (Impact 3.9.3) would not further worsen flooding risks for Stockton residents.

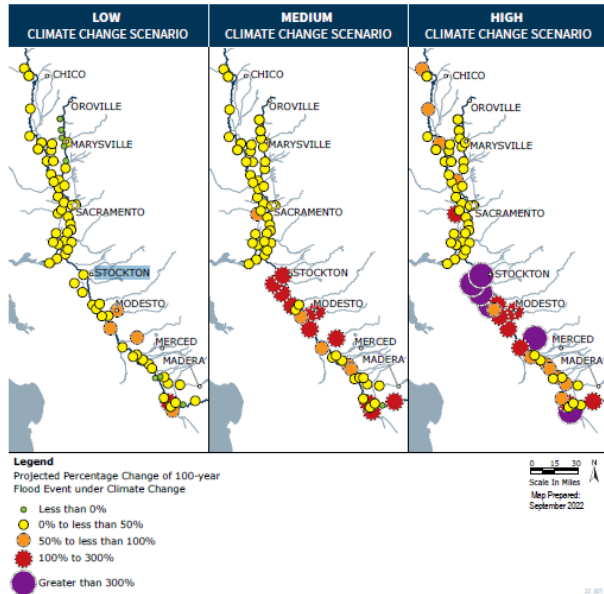
Additionally, at the 4.10.2023 “ad hoc” meeting the flooding of Airport Way adjacent to French Camp Slough was discussed. The Project proponent staff stated that the problem was related to upstream issues on the North Fork of Little Johns Creek which feeds into French Camp Slough. Projects already approved now drain into the North Fork of Little Johns Creek and French Camp Slough. The Project proponent staff also stated that French Camp Slough did not top the levees near Airport Way. On 2.19.2023 I took a field trip and based on the vegetation and mud patterns; it appeared that French Camp Slough had topped the levee and spilled onto the floodway.



Climate Change and Flood Protection

Paving over agricultural/open space land adjacent to the French Camp Slough will increase runoff that will be discharged to French Camp Slough. The City’s drainage requirements do not incorporate climate change predictions which result in undersized drainage facilities. The City of Stockton approves drainage plans without any public review using ministerial actions. Below are diagrams from the 2022 Update Central Valley Flood Protection Plan published in November 2022.

Figure 2.5 Spatial Patterns of Change in Peak Regulated Flows Representing the 100-Year Flood or 1% Annual Exceedance Probability under 2022 CVFPP Climate Change Scenarios



The General Plan is long term planning document. Within the last 5 years since adoption, over 35 million square feet of warehousing on a hundreds of agricultural acres have been approved by the City of Stockton and are in active construction stages in the south and east of Stockton. Given the proximity of the project to important airport resources and French Camp Slough a tributary of the San Joaquin River, this project should not be approved at this time.

The following is a photograph looking north and east adjacent to French Camp Slough near Airport Way on 2.23 2023.

There was evidence that French Camp Slough had overtopped the levees and flowed onto the designated floodway and there had been some reports by the County of San Joaquin of road closures on Airport Way in the vicinity. As you will read below, an important mitigating measure for urban flooding is to include larger floodplains which are areas adjacent to floodways and reduce



peak flows that top levees because the water is spread out over a larger area. This land should be used for habitat mitigation for other needed flood control projects in addition to the mitigation that the City has designated a large part of the Van Buskirk Park for the Mossdale flood mitigation project.

California's next flood could destroy one of its most diverse cities. Will lawmakers try to save it?; Jake Bittle; 1.19.2023 Grist 3

"...lawmakers have overlooked Stockton's vulnerable populations, according to Jane Dolan, president of the Central Valley Flood Protection Board, a state agency that oversees flood management. But Dolan says the disparity also exists because leaders along the San Joaquin River have long tended to focus more on securing water for agricultural irrigation than on managing the rivers, which has made it hard to secure momentum for big flood improvements." "They don't have that consensus about managing floodwaters and allowing space for the river," she told Grist. "Politicians from city councils to Congress are all focused on water supply."

"You can build a levee stronger and better, but it's still vulnerable to breaking," said John Cain, director of conservation at River Partners, a nonprofit that advocates for such floodplain restoration projects. "If you want to have more resiliency in the system, you literally need more room."

Making room for waterways and reducing runoff intensities and volumes reduce flooding frequencies.

Adjacent to the San Joaquin River is the public housing project known as Conway Homes which provide essential housing assistance to some of our most vulnerable residents. While as a City of Stockton Planning Commissioner, my current City Council representative described possible flooding situations that could impact residents east of I-5. Brando Villapudua sent the following on May 24, 2022 to Mayor and City Council Members regarding an City Council item:

"Conway Homes and the housing developments surrounding the former Van Buskirk Golf Course and Community Center are one of the most vulnerable communities for flood threat within the Delta. Modeling from the Department of Water Resources estimates seven feet of overtopping of the levees near French Camp Slough and the San Joaquin River due to a combination of storm inundation, storm surge and sea level rise. In the event of such a storm event, water from the confluence of French Camp Slough and the San Joaquin River would overtop the west end of the golf course and could potentially back up into Walker Slough broadening a flood emergency."

We in San Joaquin County have been assisted by the Federal Government at the property owner and municipality level by the Federal Emergency Management Agency (FEMA) during this flooding season. Guidance has been developed to minimize flooding and that projects not be approved in floodways without adequate study⁴:

Title 44 of the Code of Federal Regulations, Section 60.3(d)(3), states: "A community shall prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice

³ <https://grist.org/extreme-weather/stockton-california-storm-flooding-atmospheric-river-central-valley-levees/>

⁴ <https://www.nh.gov/osi/planning/programs/fmp/documents/sample-no-rise-certification.pdf>

that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge."

The Project proposes a maximum of 6,091,551 square feet of industrial type land uses, 140,350 square feet of commercial land uses, 54 acres of open space, 41 acres of public facilities, and 18 acres of right-of-way circulation improvements. The over-riding assumptions are difficult to accept when the no project was the best alternative and neither of the alternatives met the project objectives "that is to develop 422-acres of land for industrial uses, commercial uses, open space, public facilities, and public roadway right-of-way." The City acknowledged that other locations might be preferable, but no downsides of the proposed location was disclosed. "City's consideration of alternative locations for the Project included a review of previous land use planning and environmental documents in Stockton including the General Plan. The search included a review of lands in the south part of Stockton that are located within the Sphere of Influence and is otherwise suitable for development."

I find it strange that the City did not consider lands to the north or east of town when seeking alternative locations. Furthermore, the City has indicated that LU-4.1 is satisfied.

LU-4.1 states: Encourage large-scale development proposals in appropriate locations that include significant numbers of higher-wage jobs and local revenue generation. Such development may utilize the Economic and Education Enterprise land use designation if the proposal meets all of the criteria listed under the definition of the designation. The rationale used by the City to satisfy LU4.1 is as follows: "The proposed Project is considered large-scale and would provide jobs and local revenue for the city. The Project location is appropriate for commercial and industrial warehouse uses because it is located on land planned for industrial uses by the General Plan. Additionally, the Project area is located near existing industrial warehouses, and can utilize Airport Way, the existing rail line, and State Route (SR) 99 for the transport of goods.

Since the project satisfies LU-4.1, I wonder why the northern part of Stockton was not inventoried for potential sites and only South Stockton was considered by the City.

Vulnerable Populations affected by increased precipitation patterns and runoff intensities.

Opinion: Catastrophic floods and breached levees reveal a problem California too often neglects; Jeffery Mount and Brett Sanders; 4.7.2023 Los Angeles Times⁵

Finally, flood management is a social justice issue... First, we need to identify the risks and appropriate responses more accurately with our changing climate in mind. Communities and governments need to work together to increase resilience, particularly for the most vulnerable populations. The same risk assessments can be used to guide land use. The most cost-effective risk management strategy is to discourage new construction in areas at high risk of flooding.

⁵ <https://www.latimes.com/opinion/story/2023-04-07/flood-control-drought-levees-california>

As floods endanger the San Joaquin Valley, Newsom cuts funding for floodplains; Alastair Bland; 3.29.2023 CalMatters⁶

Barrigan-Parrilla of Restore the Delta said at least 17,000 houses in Stockton near Van Buskirk Park are at particular risk of flooding. Nearby a community of unhoused people lives beside Mormon Slough, which nearly spilled over its levee in January.

“That \$40 million could have been used to finish up planning for floodplains from Merced all the way to Van Buskirk Park,” she said. “The more we can get floodplains back into use along the San Joaquin River system, the more we can keep people safe from flooding, especially in environmental justice communities.”

Flood Protection Funding Challenges

California’s next flood could destroy one of its most diverse cities. Will lawmakers try to save it?; Jake Bittle; 1.19.2023 Grist⁷

“...lawmakers have overlooked Stockton’s vulnerable populations, according to Jane Dolan, president of the Central Valley Flood Protection Board, a state agency that oversees flood management. But Dolan says the disparity also exists because leaders along the San Joaquin River have long tended to focus more on securing water for agricultural irrigation than on managing the rivers, which has made it hard to secure momentum for big flood improvements.” “They don’t have that consensus about managing floodwaters and allowing space for the river,” she told Grist. “Politicians from city councils to Congress are all focused on water supply.” “We have a severely disadvantaged community,” said Chris Elias, director of the San Joaquin Area Flood Control Agency, the authority that manages the region’s levees. “We cannot impose too much burden on them — they’ve borne too much burden already. So we explore those other funding avenues. But just like everything else, we are competing with a whole bunch of other priorities that the state has.”

The San Joaquin Area Flood Control Agency has nevertheless initiated the Prop 218 process to garner more funds for flood control a part of which will go to funding some levee improvements on French Camp Slough downstream of the Project location. According to the San Joaquin Area Flood Control Agency⁸: “In January 2023, Stockton received one-half of its annual precipitation in only 17 days after a series of atmospheric rivers hit the region. Atmospheric Rivers are responsible for 80% of flood damages over the past 40 years in the western United States.” How will this project ease the flood burden on South Stockton or pay for additional flood mitigation related to increased runoff coefficients and outdated precipitation projections.

Public Information and Resident Engagement Process

Referenced earlier, I have attached correspondence I prepared regarding the Notice of Preparation/Initial Study (NOP/IS) and Draft EIR. I only happened upon the DEIR despite

⁶ <https://calmatters.org/environment/water/2023/03/california-floods-funding-cut-san-joaquin-valley/>

⁷ <https://grist.org/extreme-weather/stockton-california-storm-flooding-atmospheric-river-central-valley-levees/>

⁸ <https://www.sjafca.org/finance/levee-construction-maintenance-assessment>

multiple written communication with staff and formally requesting notice of availability in my NOP/IS comment letter.

The City continues to limit information sources for resident participation despite having been provided the Department of Justice's "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act"¹ which states:

Early and consistent community engagement is central to establishing good relationships between communities, lead agencies, and warehouse developers and tenants. Robust community engagement can give lead agencies access to community residents' on-the-ground knowledge and information about their concerns, build community support for projects, and develop creative solutions to ensure new logistics facilities are mutually beneficial.

Multiple emails have been sent to the City to Staff when trying to follow this project is as my students say "doing too much". A project website which is regularly updated with newsletters of the process is just one example of the best practices for community involvement outlined in the Department of Justice's "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act"¹

For example, the FEIR for this project was only made available on the agenda of the City of Stockton Planning Commission with notification from ASK Stockton on Friday 4.7.208. The City's continued use of minimal outreach is concerning for residents as well as for Planning Commissioners. The City knew of the finalization of the Project EIR and associated documents two months ago and could have held a workshop with the Planning Commission regarding the DEIR which is referenced in the FEIR prior to the 4.13.2023 meeting.

The Certificate of Posting: I declare, under penalty of perjury, that I am employed by the City of Stockton and that I caused this agenda to be posted in the City Hall notice case on April 6, 2023 in compliance with the Brown Act. City Hall was closed on 4.7.2023.

The date on the FEIR is March 17, 2023, at which time the information should have been made available to the residents of Stockton and beyond. The scope of the FEIR is so complex that the FEIR is not included in the associated information included in the e-agenda on pages 16 through 197. Many agencies submitted comments in addition to my comments on behalf of the Delta-Sierra Group. The FEIR should be posted for the public at least 30 days in advance and with an ASK notification for environmental documents available and the project website updated.

When comments were made regarding the notification process and suggestions the comments were noted. The response included the following:

"The City has established policies for community involvement for CEQA projects. The City's policies follow state rules and regulations regarding noticing meetings, noticing hearings, holding scoping meetings, and holding hearings. The City has followed these rules and regulations. It is not the City's policy to establish new, ad hoc committees to discuss possible project--specific measures or actions for individual projects. The City relies on the Planning Commission and City Council for this purpose. The City will continue to utilize this established program for decision making."

The FEIR is not posted on the Project webpage but is on the Environmental/Other Projects page ¾ down the page. The link for the FEIR on the e-packet for the 4.13.2023 Planning Commission Agenda is found on a title page as follows: Due to the size of the electronic file, the complete Final EIR, MMRP, SOC and Findings for the South Stockton Commerce Center Project may be viewed at the following weblink:

<http://www.stocktonca.gov/government/departments/communityDevelop/cdPlanEnv.html>. If just copying and pasting the link on the e-packet a 404 error is received and the link only works if a space is removed.

These established programs and policies are inadequate – the Planning Commission and City Council should be apprised of the projects long in advance of decision making. Volunteer Planning Commissioners and residents should not be expected to carry the burden of reading and developing questions and/or comments on over 1600 pages of DEIR, FEIR, and Staff reports in less than a week, if this was the first occasion to learn about the project.

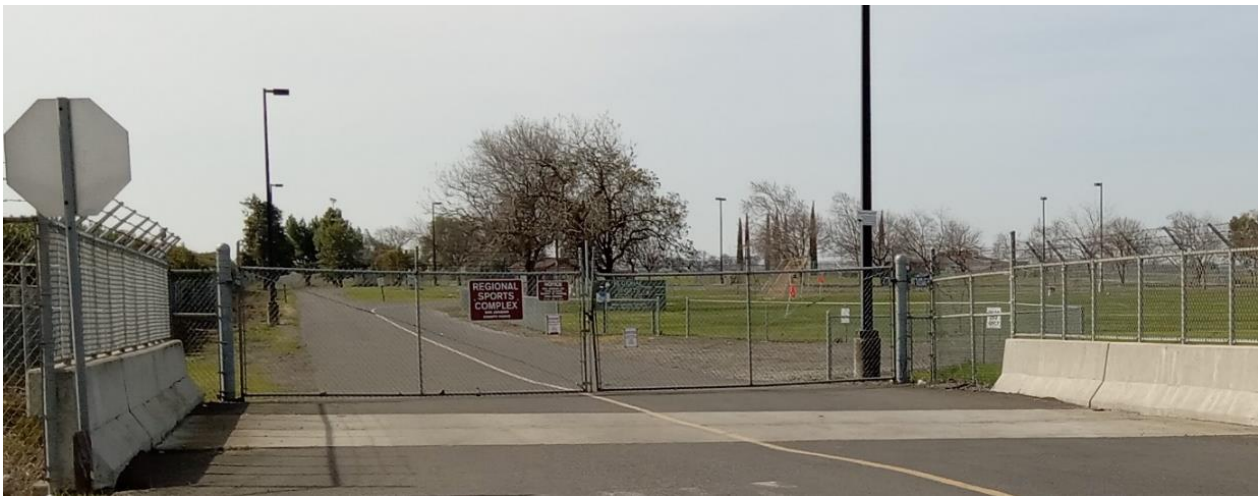
FEIR Comment Responses and Overriding Considerations

The FEIR responded to comments submitted from the following: Blum Collins & Ho, LLP, California Air Resources Board, California Attorney General's Office, Central Valley Regional Water Quality Control Board, San Joaquin County Environmental Health Department, San Joaquin Valley Air Pollution Control District, and Sierra Club, Delta-Sierra Group.

The City noted as a general response for some comments by state regulatory agencies the following: “noted that a lead agency is not required to accept a regulatory agency’s recommendation that further studies be undertaken (Gray v. County of Madera (2008) 167 CA4th 1125).” These state agencies are generally far removed from the influence that increased warehousing development has on some city staff viewing warehouse development as a “tax source”.

Aesthetics and Visual Resources Significant and Unavoidable Impacts

Compliance with the City’s Heritage Tree ordinance is not mitigation. The removal of an orchard to be replaced with Warehouses can be avoided on the east adjacent to the Regional Sports Complex shown below with the planting of vegetative barriers on the fence line and along on the Airport Way. Furthermore according to “Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act”¹ planting trees in parking areas to provide at least 35% shade cover of parking areas within fifteen years to reduce heat island impacts is a valid mitigation measure not included in the FEIR. Public amenities like riparian habitat viewing areas can also be incorporated which will enable Stockton residents to connect to nature along our waterways which is healing.



Mitigation Monitoring

The Statement of Overriding Considerations includes: “The City will use the Mitigation Monitoring Program to track compliance with Project mitigation measures.” These compliance reports are not available through a public information request as the response from the City on other projects is to direct the requestor to the Mitigation and Monitoring Plan rather than any evidence that mitigation was monitored. There must be more transparency within the City of Stockton and between the residents of Stockton and the Development Community.

Agricultural Land Overriding Considerations

The proposed Project that is discretionary and speculative will result in the permanent loss of 158.6 acres of Prime Farmland and 359.4 acres of Farmland of Statewide Importance and 4.3 acres of Unique Farmland is considered a significant environmental impact. As I indicated in both the NOP and DEIR comments, the City of Stockton Agricultural Land Mitigation Program is not the same as the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan specifically addresses loss of habitat not loss of agricultural activities on agricultural

lands⁹. There are different fees related to habitat potential with a category for agricultural lands established annual by the San Joaquin Council of Governments. I have been informed that the City of Stockton is working on a new NEXIS study but have not seen any drafts, although I frequently request updates. However, I am certain that the current mitigation fee for the City of Stockton Agricultural Land Mitigation Fee is \$10,494.00 for the 2022-2023 year¹⁰.

The agricultural land conversion requires both City of Stockton Agricultural Land Mitigation (1:1)¹¹ and San Joaquin County Habitat Mitigation based on a San Joaquin County Council of Government (SJCOG) biological study to determine mitigation level.

The City of Stockton Agricultural Land Mitigation Fee is collected for all applicable new development projects that would result from the conversion of important farmland, as defined by the California Department of Conservation, into urban uses. All Agricultural Land Mitigation fees collected pursuant to the agreement entered into to avoid litigation in 2008 should be remitted to California Farmland Trust. The California Farmland Trust is the land trust that facilitates the placement of agricultural conservation easements to fulfill farmland mitigation requirements in the Central Valley.

The California Farmland Trust mitigation does not fulfill habitat mitigation required under the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan and the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan mitigation does not mitigate for the loss of agricultural production.

The mitigation monitoring and reporting should include a full disclosure of agricultural land mitigation and should be readily available to the public with annual reports from the California Farmland Trust available as well as a full mitigation fee accounting by project. I have specifically requested that the City of Stockton disclose agricultural mitigation efforts but have yet to receive such a disclosure which should include a financial summary of mitigation fees and project associated conservation easement acreage and locations.

Agricultural land mitigation only ensures that some other agricultural land cannot be easily developed through a conservation easement. Agricultural land mitigation does not create new agricultural land. Once the land is developed it is unlikely ever to return to food or other agricultural-related production.

The proposed CEQA Findings stated that the City's Agricultural Land Mitigation Program requires that projects provide "agricultural mitigation land" on a 1:1 basis for each acre of land converted including administrative costs of approximately \$1,000 per acre or pay the established Agricultural Land Mitigation Fee of \$12,822.

As stated previously the habitat mitigation fee is not for the purpose of preserving agricultural lands but to ensure that there is some habitat where wildlife can exist. The current SJCOG habitat fee for agricultural type habitat is \$19,255 per acre¹². Together the mitigation for use

⁹ <https://www.sjcog.org/288/Habitat-Frequently-Asked-Questions>

¹⁰ http://www.stocktonca.gov/files/2022-23_Adopted_Fee_Schedule.pdf

¹¹ <https://www.calandrtrusts.org/wp-content/uploads/2014/03/Overview-of-Legal-Restains-on-Ag-Land-Mit-Programs.pdf>

¹² <https://www.sjcog.org/DocumentCenter/View/7379/HCP----2023-Fees-and-Endowment>

and habitat for April 2023 is $\$19,255 + \$10,494 = \$29,749$ which constitutes approximately one-half of the current average agricultural land for sale.

Environmental Justice

The California Environmental Quality Act outlines minimum requirements that must be considered before a lead agency approves a project. These minimum requirements do not take into account already overburdened – high poverty areas as stated by the City in the following statement:

“However, CEQA does not use the terms “fair treatment” or “environmental justice”. Rather, CEQA centers on whether a project may have a significant effect on the physical environment, regardless of socioeconomic conditions, including income levels of the residents. For instance, air quality impacts are measured against a threshold established for the region, which is not weighted or modified up or down based on a socioeconomic condition.”

SB 1000, requires local government general plans to identify objectives and policies to reduce health risks in disadvantaged communities, promote civil engagement in the public decision making process, and prioritize improvements and programs that address the needs of disadvantaged communities

We know in our community that there are haves and have nots which is perpetuated by the reliance on complaints to garner city attention because our have nots are having to be overly concerned for providing housing, food, energy, and other necessities. Just because CEQA does not require consideration does not mean that, the City cannot employ more sensitivity and enhanced responses for our disadvantaged residents. Is not now the time to fully consider our overburdened residents and develop fair treatment policies that follow the Department of Justice’s “Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act”¹?

Finally, as there are other warehousing projects planned for our community, a study session for the Planning Commission and residents should be scheduled as soon as possible so that Commissioners can become familiar with the Department of Justice’s “Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act”¹ which will be the basis of an ordinance under development by the City of Stockton to be completed by the end of 2023.

SETTLEMENT AGREEMENT AND RELEASE

This Settlement Agreement and Release of All Claims ("Agreement") is entered into by and between the Sierra Club, a California nonprofit public benefit association, the City of Stockton ("City"), a municipal services corporation, and Greenlaw Development, LLC, a California limited liability company ("Developer"), (collectively referred to as "Parties" or singularly "Party"), to terminate fully and finally all disputes concerning the matters set forth below.

RECITALS

WHEREAS, Developer, proposes to develop an approximately 203-acre site in the South Stockton area commonly known as the Mariposa Industrial Park for light industrial land uses (the "Project"). The conceptual site plan proposes construction and operation of 3,616,870 square feet of warehouse and ancillary office uses, approximately 1,831 auto parking spaces, 1,107 truck and trailer parking spaces, and related infrastructure. Developer has applied to the City for the following project approvals: (1) adoption of a Resolution certifying the Mariposa Industrial Park Environmental Impact Report (SCH #2020120283) ("EIR"), including a Statement of Overriding Considerations, and adoption of a Mitigation Monitoring and Reporting Program ("MMRP"); and (2) adoption of an Ordinance for the Pre-zoning of APNs 179-220-10; -11; -12; -13; -16; -17; -18-; 19; and -24 (the "Property") to Industrial, Limited (IL); and (3) adoption an Ordinance for a Development Agreement; and (4) adoption of a Resolution authorizing the filing of an annexation application with the San Joaquin Local Agency Formation Commission (collectively the "Project Approvals"); and

WHEREAS, The Sierra Club and the California Attorney General submitted comments on the EIR requesting that additional air quality and other mitigation measures be included in the EIR and MMRP for the Project and that a fund to mitigate impacts on affected residents be created; and

WHEREAS, the Parties wish to resolve fully and finally all disputes which may exist between the Parties concerning the Project Approvals.

NOW, THEREFORE, based upon the foregoing recitals and the terms, conditions, covenants, and agreements contained above and incorporated in full below, the Parties agree as follows:

AGREEMENT

For good and valuable consideration, the receipt of which is acknowledged by each Party hereto, the Parties promise and agree as follows:

1. If the City approves the Project, and (i) the certified EIR and adopted MMRP include all of the Mitigation Measures in the attached Mariposa Industrial Project Enhanced Measures, and (ii) the authorized Development Agreement includes all of the revised terms in the attached Mariposa Industrial Project Enhanced Measures, then (iii) neither the Sierra Club nor any of its affiliates will file any complaints, claims, grievances, special proceedings or any other actions against the City or Developer with any state,

federal, or local agency or court challenging the Project Approvals or the proposed annexation of the Project site to the City of Stockton. If an affiliate of the Sierra Club is determined to have made a challenge to the Project Approvals or the proposed annexation of the Project site to the City of Stockton in violation of this Section 1, such violation shall constitute a breach of this Agreement by the Sierra Club.

2. The City will draft and consider a comprehensive Warehouse Sustainability Ordinance for future projects that establishes development standards for the construction of industrial warehousing and distribution facilities that exceed 100,000 square feet subject to periodic review for consistency with current regulatory agency recommendations before December 31, 2023. The City may incorporate the addition of warehouse sustainability requirements through its current Development Code revision/update process, provided that the ordinance is considered before December 31, 2023. City staff shall recommend adoption of the ordinance.
3. The City agrees that the Mitigation Measures in the attached Mariposa Industrial Project Enhanced Measures are designed to mitigate potentially significant environmental impacts of warehouse projects. If, prior to adopting the Warehouse Sustainability Ordinance, the City considers approving a project that proposes to develop industrial warehousing or distribution facilities that exceed 100,000 square feet, the City shall include all such applicable measures from the Mariposa Industrial Project Enhanced Measures in any Environmental Impact Report or Mitigated Negative Declaration for the project and consider requiring the project to comply with them.
4. Developer agrees to comply with the attached Mariposa Industrial Project Enhanced Measures and will comply with all applicable City building code requirements.
5. If the City approves the Project, the City will coordinate with the County of San Joaquin to develop and install signage prohibiting non-emergency vehicle access to the project site from Clark Drive or Marfargoa Road. Developer will be responsible for the costs of signage determined to be appropriate by the City and the County.
6. Developer shall pay Sierra Club \$34,350 as reimbursement for Sierra Club's attorney's fees and costs incurred in the administrative phase of the Project Approvals. Payment shall be made to the Shute, Mihaly & Weinberger LLP trust account. Developer shall make this payment within ten (10) days of the expiration of the statute of limitations set forth in Section 21167 of the Public Resources Code on actions or proceedings to attack, review, set aside, void, or annul the City of Stockton's determination of CEQA compliance for the Project Approvals, provided that no such action or proceeding has been initiated by the Sierra Club or its affiliates.
7. This Agreement shall be effective and binding upon the Parties only after the execution of both (1) this Agreement by all parties, and (2) the execution of a Memorandum of Understanding between the California Attorney General and the City relating to the City considering an ordinance to establish development standards for industrial warehouse land uses.

8. Miscellaneous.

- a. Exclusive Remedies. The Parties' sole and exclusive remedy for breach of this Agreement shall be an action for specific performance or injunction. In no event shall any Party be entitled to monetary damages for breach of this Agreement. In addition, no legal action for specific performance or injunction shall be brought or maintained until: (a) the non-breaching Party provides written notice to the breaching Party which explains with particularity the nature of the claimed breach, and (b) within thirty (30) days after receipt of said notice, the breaching Party fails to cure the claimed breach or, in the case of a claimed breach which cannot be reasonably remedied within a thirty (30) day period, the breaching Party fails to commence to cure the claimed breach within such thirty (30) day period, and thereafter diligently complete the activities reasonably necessary to remedy the claimed breach.
- b. All notices and other communications required to be provided pursuant to this Agreement shall be by electronic mail and by first class mail to the following persons at the following addresses:

SIERRA CLUB:

Margo Praus
Delta-Sierra Group
P.O. Box 9258
Stockton, CA 95208
margopraus@msn.com

with copy to:

Sierra Club
Aaron Isherwood, Coordinating Attorney
2101 Webster St., Suite 1300
Oakland, CA 94612
aaron.isherwood@sierraclub.org

with copy to:

Shute, Mihaly & Weinberger LLP
Heather Minner
396 Hayes Street
San Francisco, CA 94102
minner@smwlaw.com

GREENLAW DEVELOPMENT, LLC:

Greenlaw Partners
18301 Von Karmen Avenue, Suite 250
Irvine, CA 92612
Attn: Rob Mitchell
Email: rob@greenlawpartners.com

with copy to:

Cochran Law Group
18301 Von Karman Avenue, Suite 270
Irvine, California 92612
Attn: Thia Cochran
Email: thia@cochranlawgroup.com

with copy to:

Law Office of Daniel P. Doporto
Daniel P. Doporto
3478 Buskirk Avenue, Suite 1000
Pleasant Hill, CA 94523
Email: ddoporto@doportolaw.com

CITY OF STOCKTON:

City Attorney's Office
425 N. El Dorado Street
Stockton, CA 95202
City.attorney@stocktonca.gov

with copy to:

City Manager's Office
425 N. El Dorado Street
Stockton, CA 95202
City.manager@stocktonca.gov

- c. Binding on Successors. The terms, covenants, and conditions of this Agreement shall be binding upon and shall inure to the benefit of the heirs, executors, administrators, successors and assignees of the respective Parties. Developer shall record a copy of this Agreement against the Property. Developer will provide a copy of the recorded Agreement to Sierra Club within fifteen (15) days of such recording. The Parties shall give notice to all other Parties of any successor or assignee to the Party.

- d. Non-Admission of Liability. The Parties acknowledge and agree that this Agreement is a settlement of disputed claims. Neither the fact that the Parties have settled nor the terms of this Agreement shall be construed in any manner as an admission of any liability by any Party.
- e. Assistance of Counsel. The Parties each specifically represent that they have consulted to their satisfaction with and received independent advice from their respective counsel prior to executing this Agreement concerning the terms and conditions of this Agreement.
- f. Waiver. Failure to insist on compliance with any term, covenant or condition contained in this Agreement shall not be deemed a waiver of that term, covenant or condition, nor shall any waiver or relinquishment of any right or power contained in this Agreement at any one time or more times be deemed a waiver or relinquishment of any right or power at any other time or times.
- g. Severability. Should any portion, word, clause, phrase, sentence or paragraph of this Agreement be declared void or unenforceable, such portion shall be considered independent and severable from the remainder, the validity of which shall remain unaffected.
- h. Governing Law and Venue. This Agreement is made and entered into in the State of California, and shall in all respects be interpreted, enforced and governed under the laws of said State without giving effect to conflicts of laws principles. Any action to enforce, invalidate, or interpret any provision of this Agreement shall be brought in San Joaquin County Superior Court.
- i. Entire Agreement. This Agreement constitutes the entire agreement between the Parties who have executed it and supersedes any and all other agreements, understandings, negotiations, or discussions, either oral or in writing, express or implied between the Parties to this Agreement. No representation, inducement, promise, agreement or warranty not contained in this Agreement, including, but not limited to, any purported supplements, modifications, waivers, or terminations of this Agreement shall be valid or binding, unless executed in writing by all of the Parties to this Agreement.
- j. Each of the signatories hereto represents and warrants that he or she is competent and authorized to enter into this Agreement on behalf of the Party for whom he or she purports to sign.
- k. Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be considered an original but all of which shall constitute one agreement.

[SIGNATURES COMMENCE ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the undersigned execute this Settlement Agreement and Release, and hereby agree to all terms and condition herein, on the dates set forth below.

SIERRA CLUB

By: Margo Praus
Name: Margo Praus
Its: Chair, Delta-Sierra Group
Date: 11-11-2022

GREENLAW DEVELOPMENT, LLC

By: Rob Mitchell
Name: Rob Mitchell
Its: Partner
Date: 11/20/22

CITY OF STOCKTON

By: Harry Black
Name: Harry Black
Its: City Manager
Date: 12/22/22

ATTEST:
for CLERK OF THE CITY OF STOCKTON
By: M. K. Maule



APPROVED AS TO FORM

By: Taryn Jones
Name: Taryn Jones for
City Attorney
Date: 12/22/22

MARIPOSA INDUSTRIAL PROJECT
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The Final EIR Mitigation Measures will be revised to include the following:

AMM AIR-1: Solar Power: Owners, operators or tenants shall include with the building permit application, sufficient solar panels to provide power for the operation's base power use at the start of operations and as base power use demand increases. Project sponsor shall include analysis of (a) projected power requirements at the start of operations and as base power demand increases corresponding to the implementation of the "clean fleet" requirements, and (b) generating capacity of the solar installation.

AMM AIR -1 (continued): CDD shall verify the size and scope of the solar project based upon the analysis of the projected power requirements and generating capacity as well as the available solar panel installation space. The photovoltaic system shall include a battery storage system to serve the facility in the event of a power outage to the extent required by the 2022 or later California Building Standards Code.

AMM AIR -1 (continued): In the event sufficient space is not available on the subject lot to accommodate the needed number of solar panels to produce the operation's base or anticipated power use, the applicant shall demonstrate how all available space has been maximized (e.g., roof, parking areas, etc.). Areas which provide truck movement may be excluded from these calculations unless otherwise deemed acceptable by the supplied reports.

AMM AIR -1 (continued): The developer or tenant, or qualified solar provider engaged by the developer or tenant shall timely order all equipment and shall install the system when the City has approved building permits and the necessary equipment has arrived. The developer or tenant shall commence operation of the system when it has received permission to operate from the utility. The photovoltaic system owner shall be responsible for maintaining the system(s) at not less than 80% of the rated power for 20 years. At the end of the 20-year period, the building owner shall install a new photovoltaic system meeting the capacity and operational requirements of this measure, or continue to maintain the existing system, for the life of the project.

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EMM AIR-1: Prior to the issuance of the first building permit, the applicant/developer shall demonstrate compliance with the SJVAPCD Rule 9510 (Indirect Source Review) to reduce growth in both NOx and PM10 emissions, as required by SJVAPCD and City requirements.

AMM AIR-1: Architectural Coatings: Construction plans shall require that architectural and industrial maintenance coatings (e.g., paints) applied on the project site shall be consistent with a VOC content of <10 g/L. Developer or tenant is not expected to exercise control over materials painted offsite by a third party.

AMM AIR-3: Construction Worker Trip Reduction: Project construction plans and specifications will require contractor to provide transit and ridesharing information for construction workers.

AMM AIR-2: SJVAPCD Regulation VIII Compliance: Construction plans and specifications shall include a Dust Control Plan incorporating the applicable requirements of Regulation VIII, which shall be submitted to the SJVAPCD for review and approval prior to beginning construction in accordance with the requirements of Regulation VIII.

AMM AIR -2: Emission Standards for Heavy-Duty Trucks: The following mitigation measures shall be implemented during all on-going business operations and shall be included as part of contractual lease agreement language to ensure the tenants/lessees are informed of all on-going operational responsibilities.

The property owner/tenant/lessee shall ensure that all heavy-duty trucks (Class 7 and 8) domiciled on the project site are model year 2014 or later from start of operations and shall expedite a transition to zero-emission vehicles, with the fleet fully zero-emission by December 31, 2025 or when commercially available for the intended application, whichever date is later.

A zero-emission vehicle shall ordinarily be considered commercially available if the vehicle is capable of serving the intended purpose and is included in California's Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project, <https://californiahvip.org/> or listed as available in the US on the Global Commercial Vehicle Drive to Zero inventory,

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<https://globaldrivetozero.org/>. The City shall be responsible for the final determination of commercial availability, based on all the facts and circumstances at the time the determination is made, and may (but is not required to) consult with the California Air Resources Board before making such final determination. In order for the City to make a determination that such vehicles are commercially unavailable, the operator must submit documentation from a minimum of three (3) EV dealers identified on the californiahvip.org website demonstrating the inability to obtain the required EVs or equipment needed within 6 months.

"Domiciled at the project site shall mean the vehicle is either (i) parked or kept overnight at the project site more than 70% of the calendar year or (ii) dedicated to the project site (defined as more than 70% of the truck routes (during the calendar year) that start at the project site even if parked or kept elsewhere)

Zero-emission heavy-duty trucks which require service can be temporarily replaced with model year 2014 or later trucks. Replacement trucks shall be used for only the minimum time required for servicing fleet trucks.

AMM AIR-3: Zero Emission Vehicles: The property owner/tenant/lessee shall utilize a "clean fleet" of vehicles/delivery vans/trucks (Class 2 through 6) as part of business operations as follows: For any vehicle (Class 2 through 6) domiciled at the project site, the following "clean fleet" requirements apply: (i) 33% of the fleet will be zero emission vehicles at start of operations, (ii) 65% of the fleet will be zero emission vehicles by December 31, 2023, (iii) 80% of the fleet will be zero emission vehicles by December 31, 2025, and (iv) 100% of the fleet will be zero emission vehicles by December 31, 2027.

"Domiciled at the project site" shall mean the vehicle is either (i) parked or kept overnight at the project site more than 70% of the calendar year or (ii) dedicated to the project site (defined as more than 70% of the truck routes (during the calendar year) that start at the project site even if parked or kept elsewhere).

Zero-emission vehicles which require service can be temporarily replaced with alternate vehicles. Replacement vehicles shall be used for only the minimum time required for servicing fleet vehicles.

The property owner/tenant/lessee shall not be responsible to meet "clean fleet" requirements for vehicles used by common carriers operating under their own authority that provide delivery services to or from the project site.

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AMM AIR-4: Demonstrate Compliance with Clean Fleet Requirements: The applicant, property owner, tenant, lessee, or other party operating the facility (the "Operator") shall utilize the zero emission vehicles/trucks required to meet the "clean fleet" requirements in AMM AIR-2 (for Class 7 and 8 vehicles) and AMM AIR-3 (for Class 2 through 6 vehicles) above. Within 30-days of occupancy, the Operator shall demonstrate to the satisfaction of CDD staff, that the applicable clean fleet requirements are being met.

AMM AIR-4 (continued): In the event that vehicles/trucks are not commercially available for the intended application, the "clean fleet requirements" may be adjusted as minimally as possible by the CDD to accommodate the unavailability of commercially available vehicles/trucks.

AMM AIR 4 (continued) The City shall quantify the air pollution and GHG emissions resulting from any modification of this condition. Within 12 months of failing to meet a "clean fleet" requirement the property owner/tenant/lessee shall implement a Voluntary Emissions Reduction Agreement (VERA) providing pound for pound mitigation of the criteria pollutant, toxic air contaminants, and GHG emissions quantified by the City through a process that develops, funds, and implements emission reduction projects, with the Air District serving a role of administrator of the emission reduction projects and verifier of the successful mitigation effort. The VERA shall prioritize projects in the South Stockton and surrounding area. Property owner/tenant/lessee shall continue to fund the VERA each year in an amount necessary to achieve pound for pound mitigation of emissions resulting from not meeting the clean fleet requirements until the owner/tenant/lessee fully complies.

AMM AIR-4 (continued): The Operator shall implement the proposed measures after CDD review and approval. Any extension of time granted to implement this condition shall be limited to the shortest period of time necessary to allow for 100% electrification under the clean fleet requirements. The CDD staff may seek the recommendation of the California Air Resources Board in determining whether there has been a manufacturing disruption or insufficient vehicles/trucks commercially available for the intended application.

AMM AIR-4 (continued): Construction Meal Destinations: Project construction plans and specifications will require the contractor to establish one or more locations for food or catering truck service to construction workers and to cooperate with food service providers to provide consistent food service.

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AMM AIR-5: Condition of Approved Compliance Report: The Operator shall submit a condition of approval compliance report within 30 days of, but not later than, the following dates: December 31, 2023, December 31, 2025, and December 31, 2027. The report shall outline clean fleet requirements applicable at each report interval and include documentation demonstrating compliance with each requirement. The City shall consider each report at a noticed public hearing and determine whether the Operator has complied with the applicable clean fleet requirements. If the Operator has not met each 100% clean fleet requirement by December 31, 2027, then the Operator shall submit subsequent reports every year until the 100% clean fleet requirement is implemented. The City shall consider each subsequent report at a noticed public hearing and determine whether the Operator has complied with the clean fleet requirements, including any minimal adjustments to the requirements by the CDD to accommodate the manufacturing disruption or unavailability of commercially available vehicles/trucks, as described in the previous paragraph. Notice of the above hearings shall be provided to all properties located within 1,000 feet of the project site and through the ASK Stockton list serve.

AMM AIR-5 (continued): After the 100% clean fleet requirement has been implemented and confirmed by the CDD, the Operator shall submit to the CDD an on-going compliance report every three years containing all necessary documentation to verify that the Operator is meeting the clean fleet requirements. At the time it confirms that the 100% clean fleet requirement has been implemented, the CDD will establish the due date for the first on-going compliance report. Each subsequent on-going compliance report shall be due within 30 days of, but not later than, the three-year anniversary of the preceding due date. The on-going compliance reports and accompanying documentation shall be made available to the public upon request.

AMM AIR-6: Zero Emission Forklifts, Yard trucks and Yard Equipment: Owners, operators or tenants shall require all forklifts, yard trucks, and other equipment used for on-site movement of trucks, trailers and warehoused goods, as well as landscaping maintenance equipment used on the site, to be electrically powered or zero-emission. The owner, operator or tenant shall provide on-site electrical charging facilities to adequately service electric vehicles and equipment

AMM AIR-7: Truck Idling Restrictions: Owners, operators or tenants shall be required to make their best effort to restrict truck idling onsite to a maximum of three minutes, subject to exceptions defined by CARB in the document: commercial_vehicle_idling_requirements_July 2016. Idling restrictions shall be enforced by highly-visible posting at the

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site entry, posting at other on-site locations frequented by truck drivers, conspicuous inclusion in employee training and guidance material and owner, operator or tenant direct action as required.

AMM AIR-8: Electric Truck Charging: At all times during project operation, owners, operators or tenants shall be required to provide electric charging facilities on the project site sufficient to charge all electric trucks domiciled on the site and such facilities shall be made available for all electric trucks that use the project site.

AMM AIR-9: Project Operations, Food Service: Owners, operators or tenants shall establish locations for food or catering truck service and cooperate with food service providers to provide consistent food service to operations employees.

AMM AIR-10: Project Operations, Employee Trip Reduction: Owners, operators or tenants shall provide employees transit route and schedule information on systems serving the project area and coordinate ridesharing amongst employees.

AMM AIR-11: Yard Sweeping: Owners, operators or tenants shall provide periodic yard and parking area sweeping to minimize dust generation

AMM AIR-12: Diesel Generators: Owners, operators or tenants shall prohibit the use of diesel generators, except in emergency situations, in which case such generators shall have Best Available Control Technology (BACT) that meets CARB's Tier 4 emission standards.

AMM AIR-13: Truck Emission Control: Owners, operators or tenants shall ensure that trucks or truck fleets domiciled at the project site be model year 2014 or later, and maintained consistent with current CARB emission control regulations.

AMM AIR-14: All tenant lease agreements for the project site shall include a provision requiring the tenant/lessee to comply with all applicable requirements of the MMRP, a copy of which shall be attached to each tenant/lease agreement.

AMM AIR-14 (continued): SmartWay: Owners, operators or tenants shall enroll and participate the in SmartWay program for eligible businesses

AMM AIR-15: Designated Smoking Areas: Owners, operators or tenants shall ensure that any outdoor areas allowing smoking are at least 25 feet from the nearest property line.

AMM AIR 16: Project construction shall be subject to all adopted City building codes, including the adopted Green Building Standards Code, version July 2022 or later. Prior to the issuance of building permits, the applicant/developer

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shall demonstrate (e.g., provide building plans) that the proposed buildings are designed and will be built to, at a minimum, meet the Nonresidential Voluntary Measures of the California Green Building Standards code, Divisions A5.1, 5.2 and 5.5, including but not limited to the Tier 2 standards in those Divisions, where applicable, such as the Tier 2 advanced energy efficiency requirements as outlined under Section A5.203.1.2.

EMM AG-1: The project shall participate in and comply with the City's Agricultural Lands Mitigation Program, under which developers of the property shall contribute agricultural mitigation land or shall pay the Agricultural Land Mitigation Fee to the City.

The City and Applicant will revise the proposed Development Agreement to provide the following:

In the DA text and in Exhibit B, to clarify that cold storage facilities are prohibited on the site and transport refrigeration units (TRUs) may not enter the site. In the DA text provide that any future proposal to construct cold storage facilities on the site or to allow TRUs to enter the site would require an amendment to the Development Agreement that shall be deemed and processed as a Major Modification to the Development Agreement, an application to the City for a conditional use permit, and be subject to review under the California Environmental Quality Act and Stockton Municipal Code Chapter 16.168.

Section 8.3 of the DA will be revised as follows:

8.3 Mitigation Measures. Developer agrees to and shall comply with all applicable mitigation measures attached hereto as Exhibit C and with all applicable mitigation measures in the MIP EIR, as described in the Mitigation Monitoring/Reporting Program approved by the City on _____, 2023. Developer shall include in all tenant lease agreements for the project site a provision requiring the tenant/lessee to comply with all applicable requirements of the measures in this Section 8.3, a copy of which shall be attached to each to each tenant/lease agreement.

Section 10.1 of the DA will be revised as follows:

10.1 Annual Review. As required by California Government Code Section 65865.1 and pursuant to Section 16.128.110 of the Development Agreement Ordinance, the City of Stockton Planning Commission shall review

MARIPOSA INDUSTRIAL PROJECT
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this Agreement and all actions taken pursuant to the terms of this Agreement with respect to the development of the Project every twelve (12) months at a duly-noticed public hearing to determine good faith compliance with this Agreement (“Annual Review”). Specifically, the Annual Review shall be conducted for the purposes of determining good faith compliance with the terms and/or conditions of this Agreement, including compliance with the mitigation measures in Section 8.3 of this Agreement. Each Annual Review shall also document the status of Project development. In the event the Planning Commission recommends modification or termination of this Agreement in connection with such Annual Review, the action to effectuate such modification or termination must be taken by City Council.

In the DA text, to require the City to coordinate with the County to develop and install signage prohibiting non-emergency vehicle access to the project site from Clark Drive or Marfargoa Road. The Applicant will be responsible for the costs of the signage determined to be appropriate by the City and the County.

In the text, to require the following:

Construction plans shall include a 10-foot by 65-foot landscaped berm along the 623-lineal foot and 493-lineal foot portions of the west line of the site, located north and south of Marfargoa Road, which will be required by and shown on Exhibit B to the Development Agreement. Landscaping of the berm shall include fast-growing evergreen trees to provide maximum visual screening, as determined by a qualified landscape architect. Construction plans shall also include a 10-foot wall along the 881-lineal foot and 1,316-lineal foot portions of the west line of the site, located north and south of Clark Drive, which will be required by and shown on Exhibit B to the Development Agreement. Construction plans shall also identify a 60-foot “no truck” zone along the entire length of the west line of the site, which will be required by and shown on Exhibit B to the Development Agreement. Construction plans shall also identify and prohibit building construction within a setback area located a minimum of 300 feet from the property line of residential properties along Marfargoa Road and Clark Drive. Notwithstanding the foregoing, the stairwells of ancillary/accessory buildings may encroach into the 300-foot setback area.

In the text, to provide that, prior to the issuance of a grading permit, the Applicant will provide \$200,000 to a non-profit organization serving disadvantaged residents of San Joaquin County approved by the City’s Community Development Director, to fund a program to reduce exposure to emissions and noise from vehicle and truck traffic and industrial operations, for residents located within the geographic area bounded by Munford Avenue, Mariposa Road, Little John’s Creek and the SR99 Frontage Road. The program may fund or reimburse home air filtration systems, HVAC

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modifications, window replacements, weather stripping, or similar improvements; publicly available electric vehicle charging station(s); and/or air quality monitoring sensors with publicly available real time data (such as PurpleAir sensors).



Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act

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In carrying out its duty to enforce laws across California, the California Attorney General's Bureau of Environmental Justice (Bureau)¹ regularly reviews proposed warehouse projects for compliance with the California Environmental Quality Act (CEQA) and other laws. When necessary, the Bureau submits comment letters to lead agencies regarding warehouse projects, and in rare cases the Bureau has filed litigation to enforce CEQA.² This document builds upon the Bureau's work on warehouse projects, collecting information gained from the Bureau's review of hundreds of warehouse projects across the state.³ It is meant to help lead agencies pursue CEQA compliance and promote environmentally-just development as they confront warehouse project proposals.⁴ While CEQA analysis is necessarily project-specific, this document provides information on feasible best practices and mitigation measures, nearly all of which have been adapted from actual warehouse projects in California.

I. Background

In recent years, the proliferation of e-commerce and rising consumer expectations of rapid shipping have contributed to a boom in warehouse development.⁵ California, with its ports, population centers, and transportation network, has found itself at the center of this trend. In 2020, the Ports of Los Angeles, Long Beach, and Oakland collectively accounted for over 34% of all United States international container trade.⁶ The Ports of Los Angeles and Long Beach alone generate about 35,000 container truck trips every day.⁷ Accordingly, the South Coast Air Basin now contains approximately 3,000 warehouses of over 100,000 square feet each, with a total warehouse capacity of approximately 700 million square feet, an increase of 20 percent over the last five years.⁸ This trend has only accelerated, with e-commerce growing to

¹ <https://oag.ca.gov/environment/justice>.

² <https://oag.ca.gov/environment/ceqa>; *People of the State of California v. City of Fontana* (Super. Ct. San Bernardino County, No. CIVSB2121829); *South Central Neighbors United et al. v. City of Fresno et al.* (Super. Ct. Fresno County, No. 18CECG00690).

³ This September 2022 version revises and replaces the prior March 2021 version of this document.

⁴ Anyone reviewing this document to determine CEQA compliance responsibilities should consult their own attorney for legal advice.

⁵ As used in this document, "warehouse" or "logistics facility" is defined as a facility consisting of one or more buildings that stores cargo, goods, or products on a short- or long-term basis for later distribution to businesses and/or retail customers.

⁶ Data from the Bureau of Transportation Statistics, Container TEUs (Twenty-foot Equivalent Units) (2020), <https://data.bts.gov/stories/s/Container-TEU/x3fb-aeda/> (Ports of Los Angeles, Long Beach, and Oakland combined for 14.157 million TEUs, 34% of 41.24 million TEUs total nationwide) (last accessed September 18, 2022).

⁷ U.S. Dept. of Transportation, Federal Highway Administration, *FHWA Operations Support – Port Peak Pricing Program Evaluation* (2020), available at <https://ops.fhwa.dot.gov/publications/fhwahop09014/sect2.htm> (last accessed September 18, 2022).

⁸ South Coast Air Qual. Mgmt. Dist., *Final Socioeconomic Assessment for Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and Proposed Rule 316 – Fees for Rule 2305*, at 7-8, 41 (May 2021).

13% of all retail sales and 2021 being a second consecutive record year for new warehouse space leased.⁹ The latest data and forecasts predict that the next wave of warehouse development will be in the Central Valley.¹⁰

When done properly, these activities can contribute to the economy and consumer welfare. However, imprudent warehouse development can harm local communities and the environment. Among other pollutants, diesel trucks visiting warehouses emit nitrogen oxide (NO_x)—a primary precursor to smog formation and a significant factor in the development of respiratory problems like asthma, bronchitis, and lung irritation—and diesel particulate matter (a subset of fine particular matter that is smaller than 2.5 micrometers)—a contributor to cancer, heart disease, respiratory illnesses, and premature death.¹¹ Trucks and on-site loading activities can also be loud, bringing disruptive noise levels during 24/7 operation that can cause hearing damage after prolonged exposure.¹² The hundreds, and sometimes thousands, of daily truck and passenger car trips that warehouses generate contribute to traffic jams, deterioration of road surfaces, and traffic accidents.

These environmental impacts also tend to be concentrated in neighborhoods already suffering from disproportionate health impacts and systemic vulnerability. For example, a comprehensive study by the South Coast Air Quality Management District found that communities located near large warehouses scored far higher on California’s environmental justice screening tool, which measures overall pollution and demographic vulnerability.¹³ That

⁹ U.S. Census Bureau News, Quarterly Retail E-Commerce Sales 4th Quarter 2021 (February 22, 2022), https://www.census.gov/retail/mrts/www/data/pdf/ec_current.pdf (last accessed September 18, 2022); CBRE Research, *2022 North America Industrial Big Box Report: Review and Outlook*, at 2-3 (March 2022), available at <https://www.cbre.com/insights/reports/2022-north-america-industrial-big-box#download-report> (last accessed September 18, 2022).

¹⁰ CBRE Research, *supra* note 9, at 4, 36; New York Times, *Warehouses Are Headed to the Central Valley, Too* (Jul. 22, 2020), available at <https://www.nytimes.com/2020/07/22/us/coronavirus-ca-warehouse-workers.html>.

¹¹ California Air Resources Board, Nitrogen Dioxide & Health, <https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health> (last accessed September 18, 2022) (NO_x); California Air Resources Board, Summary: Diesel Particulate Matter Health Impacts, <https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts> (last accessed September 18, 2022); Office of Environmental Health Hazard Assessment and American Lung Association of California, Health Effects of Diesel Exhaust, <https://oehha.ca.gov/media/downloads/calenviroscreen/indicators/diesel4-02.pdf> (last accessed September 18, 2022) (DPM).

¹² Noise Sources and Their Effects, <https://www.chem.purdue.edu/chemsafety/Training/PPETrain/dblevels.htm> (last accessed September 18, 2022) (a diesel truck moving 40 miles per hour, 50 feet away, produces 84 decibels of sound).

¹³ South Coast Air Quality Management District, “Final Socioeconomic Assessment for Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and Proposed Rule 316 – Fees for Rule 2305” (May 2021), at 4-5.

study concluded that, compared to the South Coast Air Basin averages, communities in the South Coast Air Basin near large warehouses had a substantially higher proportion of people of color; were exposed to more diesel particulate matter; had higher rates of asthma, cardiovascular disease, and low birth weights; and had higher poverty and unemployment rates.¹⁴ Each area has its own unique history, but many of these impacts and vulnerabilities reflect historic redlining practices in these communities, which devalued land and concentrated poverty, racial outgroups, and pollution into designated areas.¹⁵

II. Proactive Planning: General Plans, Local Ordinances, and Good Neighbor Policies

To systematically guide warehouse development, we encourage local governing bodies to proactively plan for logistics projects in their jurisdictions. Proactive planning allows jurisdictions to prevent land use conflicts before they materialize and direct sustainable development. Benefits also include providing a predictable business environment, protecting residents from environmental harm, and setting consistent expectations jurisdiction-wide.

Proactive planning can take many forms. Land use designation and zoning decisions should channel development into appropriate areas. For example, establishing industrial districts near major highway and rail corridors but away from sensitive receptors¹⁶ can help attract investment while avoiding conflicts between warehouse facilities and residential communities. Transition zones with lighter industrial and commercial land uses may also help minimize conflicts between residential and industrial uses.

In addition, general plan policies, local ordinances, and good neighbor policies should set minimum standards for logistics projects. General plan policies can be incorporated into existing economic development, land use, circulation, or other related general plan elements. Many jurisdictions alternatively choose to consolidate policies in a separate environmental justice element. Adopting general plan policies to guide warehouse development may also help

¹⁴ *Id.* at 5-7.

¹⁵ Beginning in the 1930s, federal housing policy directed investment away from Black, immigrant, and working-class communities by color-coding neighborhoods according to the purported “riskiness” of loaning to their residents. In California cities where such “redlining” maps were drawn, nearly all of the communities where warehouses are now concentrated were formerly coded “red,” signifying the least desirable areas where investment was to be avoided. See University of Richmond Digital Scholarship Lab, Mapping Inequality, <https://dsl.richmond.edu/panorama/redlining/#loc=12/33.748/-118.272&city=los-angeles-ca> (Los Angeles), <https://dsl.richmond.edu/panorama/redlining/#loc=13/32.685/-117.132&city=san-diego-ca> (San Diego), <https://dsl.richmond.edu/panorama/redlining/#loc=11/37.81/-122.38&city=oakland-ca> (Oakland), <https://dsl.richmond.edu/panorama/redlining/#loc=13/37.956/-121.326&city=stockton-ca> (Stockton), <https://dsl.richmond.edu/panorama/redlining/#loc=12/36.751/-119.86&city=fresno-ca> (Fresno) (all last accessed September 18, 2022).

¹⁶ In this document, “sensitive receptors” refers to residences, schools, public recreation facilities, health care facilities, places of worship, daycare facilities, community centers, or incarceration facilities.

jurisdictions comply with their obligations under SB 1000, which requires local government general plans to identify objectives and policies to reduce health risks in disadvantaged communities, promote civil engagement in the public decision making process, and prioritize improvements and programs that address the needs of disadvantaged communities.¹⁷

Local ordinances and good neighbor policies that set development standards for all warehouses in the jurisdiction are a critical and increasingly common tool that serve several goals. When well-designed, these ordinances direct investment to local improvements, provide predictability for developers, conserve government resources by streamlining project review processes, and reduce the environmental impacts of industrial development. While many jurisdictions have adopted warehouse-specific development standards, an ordinance in the City of Fontana provides an example to review and build upon.¹⁸ Good neighbor policies in Riverside County and by the Western Riverside Council of Government include additional measures worth consideration.¹⁹

The Bureau encourages jurisdictions to adopt their own local ordinances that combine the strongest policies from those models with measures discussed in the remainder of this document.

III. Community Engagement

Early and consistent community engagement is central to establishing good relationships between communities, lead agencies, and warehouse developers and tenants. Robust community engagement can give lead agencies access to community residents' on-the-ground knowledge and information about their concerns, build community support for projects, and develop creative solutions to ensure new logistics facilities are mutually beneficial. Examples of best practices for community engagement include:

- Holding a series of community meetings at times and locations convenient to members of the affected community and incorporating suggestions into the project design.
- Posting information in hard copy in public gathering spaces and on a website about the project. The information should include a complete, accurate project description, maps and drawings of the project design, and information about how the public can provide input and be involved in the project approval process. The

¹⁷ For more information about SB 1000, see <https://oag.ca.gov/environment/sb1000>.

¹⁸ <https://oag.ca.gov/system/files/attachments/press-docs/Final%20Signed%20Fontana%20Ordinance.pdf> (last accessed September 18, 2022).

¹⁹ For example, the Riverside County policy requires community benefits agreements and supplemental funding contributions toward additional pollution offsets, and the Western Riverside Council of Governments policy sets a minimum buffer zone of 300 meters between warehouses and sensitive receptors. <https://www.rivcocob.org/wp-content/uploads/2020/01/Good-Neighbor-Policy-F-3-Final-Adopted.pdf> (last accessed September 18, 2022) (Riverside County); <http://www.wrcog.cog.ca.us/DocumentCenter/View/318/Good-Neighbor-Guidelines-for-Siting-Warehouse-Distribution-Facilities-PDF?bidId=> (last accessed September 18, 2022) (Western Riverside Council of Governments).

information should be in a format that is easy to navigate and understand for members of the affected community.

- Providing notice by mail to residents and schools within a certain radius of the project and along transportation corridors to be used by vehicles visiting the project, and by posting a prominent sign on the project site. The notice should include a brief project description and directions for accessing complete information about the project and for providing input on the project.
- Providing translation or interpretation in residents' native language, where appropriate.
- For public meetings broadcast online or otherwise held remotely, providing for access and public comment by telephone and supplying instructions for access and public comment with ample lead time prior to the meeting.
- Partnering with local community-based organizations to solicit feedback, leverage local networks, co-host meetings, and build support.
- Considering adoption of a community benefits agreement, negotiated with input from affected residents and businesses, by which the developer provides benefits to the affected community.
- Creating a community advisory board made up of local residents to review and provide feedback on project proposals in early planning stages.
- Identifying a person to act as a community liaison concerning on-site construction activity and operations, and providing contact information for the community liaison to the surrounding community.
- Requiring signage in public view at warehouse facilities with contact information for a local designated representative for the facility operator who can receive community complaints, and requiring any complaints to be answered by the facility operator within 48 hours of receipt.

IV. Warehouse Siting and Design Considerations

The most important consideration when planning a logistics facility is its location. Warehouses located in residential neighborhoods or near sensitive receptors expose community residents and those using or visiting sensitive receptor sites to the air pollution, noise, traffic, and other environmental impacts they generate. Therefore, placing facilities away from sensitive receptors significantly reduces their environmental and quality of life harms on local communities. The suggested best practices for siting and design of warehouse facilities does not relieve lead agencies' responsibility under CEQA to conduct a project-specific analysis of the project's impacts and evaluation of feasible mitigation measures and alternatives; lead agencies' incorporation of the best practices must be part of the impact, mitigation and alternatives analyses to meet the requirements of CEQA. Examples of best practices when siting and designing warehouse facilities include:

- Per California Air Resources Board (CARB) guidance, siting warehouse facilities so that their property lines are at least 1,000 feet from the property lines of the nearest sensitive receptors.²⁰
- Providing adequate amounts of on-site parking to prevent trucks and other vehicles from parking or idling on public streets and to reduce demand for off-site truck yards.
- Establishing setbacks from the property line of the nearest sensitive receptor to warehouse dock doors, loading areas, and truck drive aisles, and locating warehouse dock doors, loading areas, and truck drive aisles on the opposite side of the building from the nearest sensitive receptors—e.g., placing dock doors on the north side of the facility if sensitive receptors are near the south side of the facility.
- Placing facility entry and exit points from the public street away from sensitive receptors—e.g., placing these points on the north side of the facility if sensitive receptors are adjacent to the south side of the facility.
- Ensuring heavy duty trucks abide by the on-site circulation plans by constructing physical barriers to block those trucks from using areas of the project site restricted to light duty vehicles or emergency vehicles only.
- Preventing truck queuing spillover onto surrounding streets by positioning entry gates after a minimum of 140 feet of space for queuing, and increasing the distance by 70 feet for every 20 loading docks beyond 50 docks.
- Locating facility entry and exit points on streets of higher commercial classification that are designed to accommodate heavy duty truck usage.
- Screening the warehouse site perimeter and onsite areas with significant truck traffic (e.g., dock doors and drive aisles) by creating physical, structural, and/or vegetative buffers that prevent or substantially reduce pollutant and noise dispersion from the facility to sensitive receptors.
- Planting exclusively 36-inch box evergreen trees to ensure faster maturity and four-season foliage.
- Requiring all property owners and successors in interest to maintain onsite trees and vegetation for the duration of ownership, including replacing any dead or unhealthy trees and vegetation.
- Posting signs clearly showing the designated entry and exit points from the public street for trucks and service vehicles.
- Including signs and drive aisle pavement markings that clearly identify onsite circulation patterns to minimize unnecessary onsite vehicle travel.
- Posting signs indicating that all parking and maintenance of trucks must be conducted within designated on-site areas and not within the surrounding community or public streets.

²⁰ CARB, Air Quality and Land Use Handbook: A Community Health Perspective (April 2005), at ES-1. CARB staff has released draft updates to this siting and design guidance which suggests a greater distance may be warranted in some scenarios. CARB, Concept Paper for the Freight Handbook (December 2019), available at https://ww2.arb.ca.gov/sites/default/files/2020-03/2019.12.12%20-%20Concept%20Paper%20for%20the%20Freight%20Handbook_1.pdf (last accessed September 18, 2022).

V. Air Quality and Greenhouse Gas Emissions Analysis and Mitigation

Emissions of air pollutants and greenhouse gases are often among the most substantial environmental impacts from new warehouse facilities. CEQA compliance demands a proper accounting of the full air quality and greenhouse gas impacts of logistics facilities and adoption of all feasible mitigation of significant impacts. Although efforts by CARB and other authorities to regulate the heavy-duty truck and off-road diesel fleets have made excellent progress in reducing the air quality impacts of logistics facilities, the opportunity remains for local jurisdictions to further mitigate these impacts at the project level. Lead agencies and developers should also consider designing projects with their long-term viability in mind. Constructing the necessary infrastructure to prepare for the zero-emission future of goods movement not only reduces a facility's emissions and local impact now, but it can also save money as demand for zero-emission infrastructure grows. In planning new logistics facilities, the Bureau strongly encourages developers to consider the local, statewide, and global impacts of their projects' emissions.

Examples of best practices when studying air quality and greenhouse gas impacts include:

- Fully analyzing all reasonably foreseeable project impacts, including cumulative impacts. In general, new warehouse developments are not ministerial under CEQA because they involve public officials' personal judgment as to the wisdom or manner of carrying out the project, even when warehouses are permitted by a site's applicable zoning and/or general plan land use designation.²¹
- When analyzing cumulative impacts, thoroughly considering the project's incremental impact in combination with past, present, and reasonably foreseeable future projects, even if the project's individual impacts alone do not exceed the applicable significance thresholds.
- Preparing a quantitative air quality study in accordance with local air district guidelines.
- Preparing a quantitative health risk assessment in accordance with California Office of Environmental Health Hazard Assessment and local air district guidelines.
- Refraining from labeling compliance with CARB or air district regulations as a mitigation measure—compliance with applicable regulations is required regardless of CEQA.
- Disclosing air pollution from the entire expected length of truck trips. CEQA requires full public disclosure of a project's anticipated truck trips, which entails calculating truck trip length based on likely truck trip destinations, rather than the distance from the facility to the edge of the air basin, local jurisdiction, or other truncated endpoint. All air pollution associated with the project must be considered, regardless of where those impacts occur.

²¹ CEQA Guidelines § 15369.

- Accounting for all reasonably foreseeable greenhouse gas emissions from the project, without discounting projected emissions based on participation in California’s Cap-and-Trade Program.

Examples of measures to mitigate air quality and greenhouse gas impacts from construction are below. To ensure mitigation measures are enforceable and effective, they should be imposed as permit conditions on the project where applicable.

- Requiring off-road construction equipment to be hybrid electric-diesel or zero-emission, where available, and all diesel-fueled off-road construction equipment to be equipped with CARB Tier IV-compliant engines or better, and including this requirement in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant construction equipment for use prior to any ground-disturbing and construction activities.
- Prohibiting off-road diesel-powered equipment from being in the “on” position for more than 10 hours per day.
- Using electric-powered hand tools, forklifts, and pressure washers, and providing electrical hook ups to the power grid rather than use of diesel-fueled generators to supply their power.
- Designating an area in the construction site where electric-powered construction vehicles and equipment can charge.
- Limiting the amount of daily grading disturbance area.
- Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area.
- Forbidding idling of heavy equipment for more than three minutes.
- Keeping onsite and furnishing to the lead agency or other regulators upon request, all equipment maintenance records and data sheets, including design specifications and emission control tier classifications.
- Conducting an on-site inspection to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts.
- Using paints, architectural coatings, and industrial maintenance coatings that have volatile organic compound levels of less than 10 g/L.
- Providing information on transit and ridesharing programs and services to construction employees.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations for construction employees.

Examples of measures to mitigate air quality and greenhouse gas impacts from operation include:

- Requiring all heavy-duty vehicles engaged in drayage²² to or from the project site to be zero-emission beginning in 2030.

²² “Drayage” refers generally to transport of cargo to or from a seaport or intermodal railyard.

- Requiring all on-site motorized operational equipment, such as forklifts and yard trucks, to be zero-emission with the necessary charging or fueling stations provided.
- Requiring tenants to use zero-emission light- and medium-duty vehicles as part of business operations.
- Forbidding trucks from idling for more than three minutes and requiring operators to turn off engines when not in use.
- Posting both interior- and exterior-facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to CARB, the local air district, and the building manager.
- Installing solar photovoltaic systems on the project site of a specified electrical generation capacity that is equal to or greater than the building's projected energy needs, including all electrical chargers.
- Designing all project building roofs to accommodate the maximum future coverage of solar panels and installing the maximum solar power generation capacity feasible.
- Constructing zero-emission truck charging/fueling stations proportional to the number of dock doors at the project.
- Running conduit to designated locations for future electric truck charging stations.
- Unless the owner of the facility records a covenant on the title of the underlying property ensuring that the property cannot be used to provide refrigerated warehouse space, constructing electric plugs for electric transport refrigeration units at every dock door and requiring truck operators with transport refrigeration units to use the electric plugs when at loading docks.
- Oversizing electrical rooms by 25 percent or providing a secondary electrical room to accommodate future expansion of electric vehicle charging capability.
- Constructing and maintaining electric light-duty vehicle charging stations proportional to the number of employee parking spaces (for example, requiring at least 10% of all employee parking spaces to be equipped with electric vehicle charging stations of at least Level 2 charging performance)
- Running conduit to an additional proportion of employee parking spaces for a future increase in the number of electric light-duty charging stations.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, air filtration systems at sensitive receptors within a certain radius of facility for the life of the project.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the project, and making the resulting data publicly available in real time. While air monitoring does not mitigate the air quality or greenhouse gas impacts of a facility, it nonetheless benefits the affected community by providing information that can be used to improve air quality or avoid exposure to unhealthy air.
- Requiring all stand-by emergency generators to be powered by a non-diesel fuel.
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of

- trucks.
- Requiring operators to establish and promote a rideshare program that discourages single-occupancy vehicle trips and provides financial incentives for alternate modes of transportation, including carpooling, public transit, and biking.
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking.
- Designing to LEED green building certification standards.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations.
- Posting signs at every truck exit driveway providing directional information to the truck route.
- Improving and maintaining vegetation and tree canopy for residents in and around the project area.
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses. Also require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring tenants to enroll in the United States Environmental Protection Agency's SmartWay program, and requiring tenants who own, operate, or hire trucking carriers with more than 100 trucks to use carriers that are SmartWay carriers.
- Providing tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

VI. Noise Impacts Analysis and Mitigation

The noise associated with logistics facilities can be among their most intrusive impacts to nearby sensitive receptors. Various sources, such as unloading activity, diesel truck movement, and rooftop air conditioning units, can contribute substantial noise pollution. These impacts are exacerbated by logistics facilities' typical 24-hour, seven-days-per-week operation. Construction noise is often even greater than operational noise, so if a project site is near sensitive receptors, developers and lead agencies should adopt measures to reduce the noise generated by both construction and operation activities.

Examples of best practices when studying noise impacts include:

- Preparing a noise impact analysis that considers all reasonably foreseeable project noise impacts, including to nearby sensitive receptors. All reasonably foreseeable project noise impacts encompasses noise from both construction and operations, including stationary, on-site, and off-site noise sources.
- Adopting a lower significance threshold for incremental noise increases when baseline noise already exceeds total noise significance thresholds, to account for the cumulative impact of additional noise and the fact that, as noise moves up the decibel scale, each decibel increase is a progressively greater increase in sound

pressure than the last. For example, 70 dBA is ten times more sound pressure than 60 dBA.

- Disclosing and considering the significance of short-term noise levels associated with all aspects of project operation (i.e. both on-site noise generation and off-site truck noise). Considering only average noise levels may mask noise impacts sensitive receptors would consider significant—for example, the repeated but short-lived passing of individual trucks or loading activities at night.

Examples of measures to mitigate noise impacts include:

- Constructing physical, structural, or vegetative noise barriers on and/or off the project site.
- Planning and enforcing truck routes that avoid passing sensitive receptors.
- Locating or parking all stationary construction equipment as far from sensitive receptors as possible, and directing emitted noise away from sensitive receptors.
- Verifying that construction equipment has properly operating and maintained mufflers.
- Requiring all combustion-powered construction equipment to be surrounded by a noise protection barrier
- Limiting operation hours to daytime hours on weekdays.
- Paving roads where truck traffic is anticipated with low noise asphalt.
- Orienting any public address systems onsite away from sensitive receptors and setting system volume at a level not readily audible past the property line.

VII. Traffic Impacts Analysis and Mitigation

Warehouse facilities inevitably bring truck and passenger car traffic. Truck traffic can present substantial safety issues. Collisions with heavy-duty trucks are especially dangerous for passenger cars, motorcycles, bicycles, and pedestrians. These concerns can be even greater if truck traffic passes through residential areas, school zones, or other places where pedestrians are common and extra caution is warranted.

Examples of measures to mitigate traffic impacts include:

- Designing, clearly marking, and enforcing truck routes that keep trucks out of residential neighborhoods and away from other sensitive receptors.
- Installing signs in residential areas noting that truck and employee parking is prohibited.
- Requiring preparation and approval of a truck routing plan describing the facility's hours of operation, types of items to be stored, and truck routing to and from the facility to designated truck routes that avoids passing sensitive receptors. The plan should include measures for preventing truck queuing, circling, stopping, and parking on public streets, such as signage, pavement markings, and queuing analysis and enforcement. The plan should hold facility operators responsible for violations of the truck routing plan, and a revised plan should be required from any new tenant that occupies the property before a business license

is issued. The approving agency should retain discretion to determine if changes to the plan are necessary, including any additional measures to alleviate truck routing and parking issues that may arise during the life of the facility.

- Constructing new or improved transit stops, sidewalks, bicycle lanes, and crosswalks, with special attention to ensuring safe routes to schools.
- Consulting with the local public transit agency and securing increased public transit service to the project area.
- Designating areas for employee pickup and drop-off.
- Implementing traffic control and safety measures, such as speed bumps, speed limits, or new traffic signs or signals.
- Placing facility entry and exit points on major streets that do not have adjacent sensitive receptors.
- Restricting the turns trucks can make entering and exiting the facility to route trucks away from sensitive receptors.
- Constructing roadway improvements to improve traffic flow.
- Preparing a construction traffic control plan prior to grading, detailing the locations of equipment staging areas, material stockpiles, proposed road closures, and hours of construction operations, and designing the plan to minimize impacts to roads frequented by passenger cars, pedestrians, bicyclists, and other non-truck traffic.

VIII. Other Significant Environmental Impacts Analysis and Mitigation

Warehouse projects may result in significant environmental impacts to other resources, such as to aesthetics, cultural resources, energy, geology, or hazardous materials. All significant adverse environmental impacts must be evaluated, disclosed and mitigated to the extent feasible under CEQA. Examples of best practices and mitigation measures to reduce environmental impacts that do not fall under any of the above categories include:

- Appointing a compliance officer who is responsible for implementing all mitigation measures, and providing contact information for the compliance officer to the lead agency, to be updated annually.
- Creating a fund to mitigate impacts on affected residents, schools, places of worship, and other community institutions by retrofitting their property. For example, retaining a contractor to retrofit/install HVAC and/or air filtration systems, doors, dual-paned windows, and sound- and vibration-deadening insulation and curtains.
- Sweeping surrounding streets on a daily basis during construction to remove any construction-related debris and dirt.
- Directing all lighting at the facility into the interior of the site.
- Using full cut-off light shields and/or anti-glare lighting.
- Requiring submission of a property maintenance program for agency review and approval providing for the regular maintenance of all building structures, landscaping, and paved surfaces.
- Using cool pavement to reduce heat island effects.

- Planting trees in parking areas to provide at least 35% shade cover of parking areas within fifteen years to reduce heat island impacts.
- Using light colored roofing materials with a solar reflective index of 78 or greater.
- Including on-site amenities, such as a truck operator lounge with restrooms, vending machines, and air conditioning, to reduce the need for truck operators to idle or travel offsite.
- Designing skylights to provide natural light to interior worker areas.
- Installing climate control and air filtration in the warehouse facility to promote worker well-being.

IX. Conclusion

California's world-class economy, ports, and transportation network position it at the center of the e-commerce and logistics industry boom. At the same time, California is a global leader in environmental protection and environmentally just development. The guidance in this document furthers these dual strengths, ensuring that all can access the benefits of economic development. The Bureau will continue to monitor proposed projects for compliance with CEQA and other laws. Lead agencies, developers, community advocates, and other interested parties should feel free to reach out to us as they consider how to guide warehouse development in their area.

Please do not hesitate to contact the Environmental Justice Bureau at ej@doj.ca.gov if you have any questions.

Stockton Mayor and City Councilmembers
City of Stockton Planning Commission
Via city.clerk@stocktonca.gov

05.9.2024

Re: Evaluation of the Industrial Warehouse Ordinance No. 2023-12-12-1602 and Amendments Proposed
5.9.2024 Agenda Item 5.1 24-0349

These amendments and the adopted Industrial Warehouse Ordinance fail to fully mitigate potential impacts to those disadvantaged communities within the City of Stockton, as the warehousing neither provides high paying jobs to provide a range of employment options, and negatively impacts the community, such as through increased exposure to pollutants. All the warehousing projects approved or in progress require some infrastructure improvements that are not solely paid for by developers. These City funding commitments are made when other investments of public money are not prioritized to provide infrastructure improvements that improve quality of life in disadvantaged communities. The recommendation by the Planning Commission and subsequent Industrial Warehouse Ordinance adoption by the City Council included requirements and allowances that were approved and supported by warehousing developers, while the requirements and allowances put forth by the affected disadvantaged communities and supporters were ignored. The 2040 General Plan was thought to elevate disadvantaged communities' concerns, but these goals, policies, and actions have not materialized during this process.

GOAL LU-6: EFFECTIVE PLANNING: Provide for orderly, well-planned, and balanced development.

POLICY LU-6.1 Carefully plan for future development and proactively mitigate potential impacts.

GOAL SAF-4: CLEAN AIR: Improve local Air quality.

POLICY SAF-4.1 Reduce Air impacts from mobile and stationary sources of Air pollution.

GOAL CH-2 RESTORED COMMUNITIES: Restore disadvantaged communities to help them become more vibrant and cohesive neighborhoods with high-quality affordable housing, a range of employment options, enhanced social and health services, and active public spaces.

Action CH-2.1A When considering parks and infrastructure maintenance and improvement projects, consider the following through an open and engaging process inclusive of community residents:

- Whether the affected community is underserved or disadvantaged
- What the priority needs of the community are and whether the project would address those needs.
- Whether the project would negatively impact the community, such as through increased exposure to pollutants or displacement of residents or local businesses.

Action CH-2.3A Build strong ties with disadvantaged communities to ensure that local residents can make significant contributions to planning decisions through the following:

- Use culturally appropriate approaches.
- Consider the convenience of the timing and locations of meetings to community members.
- Use social media and other communication techniques for those without time to attend public meetings.
- Provide translation services and translated materials when needed.
- Partner with non-profit organizations who are already active within the community.

The Zoning Update webpage developed for the Industrial Warehouse Ordinance gives members of the public the notion that as of 5.9.2024 there is no firm date for the Planning Commission Hearing which is scheduled 5.9.2024.¹

Upcoming Meetings

- Thursday March 28, 2024, Planning Commission Informational Workshop ([Informational Materials](#))
- (Tentative May 2024) Planning Commission Hearing for consideration of proposed Amendment.
- (Tentative July 2024) City Council Hearing for consideration of proposed Amendment.

¹ City of Stockton webpage. https://www.stocktonca.gov/business/planning_engineering/zoning/zoning_update.php

The practice of not updating webpages for which disadvantaged communities have expressed interest and expressed concerns does not lead to conditions that create strong ties to ensure that local residents can make significant contributions to planning decisions.

At the time the City of Stockton adopted preferred Industrial Warehouse Ordinance language, 12.12.2023, the City Council selected language supported by the warehouse development community, despite verbal and written pleas by community representatives on 12.5.2023² and 12.12.2023³ for more restrictive language. The City Council further voted to direct the Community Development Department to explore six specific modifications and feasibility analyses to change the, just then adopted, Industrial Warehouse Ordinance. The 12.12.2023 Shute Mihaly and Weinberger correspondence submitted on behalf of the Delta-Sierra Group evaluated the feasibility analyses associated with the proposed ordinance options and found significant concerns which were expressed therein.³ These six modifying amendments under consideration are summarized on Zoning Update City of Stockton website and materials contained in the 5.9.2024 Planning Commission:

- Modification #1: Increase Warehouse Size for Ordinance Applicability (Chamber of Commerce / San Joaquin Partnership). Change Ordinance to apply on warehouses 400,000 square feet and greater, instead of 100,000 square feet and greater (SMC Section 16.80.390(A)).
- Modification #2: Applicability for new logistic warehouses (Hollman LLC). Change Ordinance to apply to annexation projects submitted after December 31, 2023 (SMC Section 16.80.390(A)).
- Modification #3: Change Minimum Setback Requirements (Stockton Environmental Justice Advocates (SEJA)). Adjustments to setback standards (SMC Section 16.80.390(B)(1)(a)).
- Modification #4: Clarification on Solar Installation Process (SEJA). Clarification for solar installation (SMC Section 16.80.390(B)(2)(f)).
- Modification #5: Additional Electric Vehicle (EV) Charging Facilities (SEJA). Adjustments to truck charging requirements (SMC Section 16.80.390(B)(1)(k)).
- Modification #6: Additional Electric Vehicle (EV) Charging Facilities (SEJA). Adjustments to automobile charging requirements (SMC Section 16.80.390(B)(1)(l)).

A feasibility analysis was included in agenda materials which did not include answers to question posed during public meeting as will be noted under the applicable proposed modifications nor did the feasibility analysis address costs associated with environmental harm, including public health and welfare.⁴

Warehouse Size

The ordinance should apply to warehouses 100,000 square feet or greater NOT 400,000 square feet and greater. Documentation exists that warehouses 100,000 square feet or greater contribute to impacted air quality affecting public health.⁵ The California Air Resources Board (CARB) commented on the health risk and air quality analyses performed in the Mariposa DEIR.⁶ CARB stated that “according to the Fontana Truck Trip Generation Study, 20.4 percent of the total daily vehicle trips from a warehouse greater than 100,000 square feet (heavy warehouse) would consist of trucks.” The study was based on 34 different sites and referenced in the CARB comment letter.⁷

The City responded in the Mariposa FEIR:

² Minutes of 12.5.2023 City Council Meeting

https://stockton.granicus.com/MetaViewer.php?view_id=48&clip_id=8512&meta_id=754633 and verbal comments https://stockton.granicus.com/player/clip/8512?view_id=48&redirect=true

³ Minutes of 12.12.2023 City Council Meeting https://stockton.granicus.com/MinutesViewer.php?view_id=48&clip_id=8526 and verbal comments https://stockton.granicus.com/player/clip/8526?view_id=48&redirect=true

⁴ City of Stockton Planning Commission, Agenda material for the 5.9.2024 Meeting Attachment E.

https://stockton.granicus.com/MetaViewer.php?view_id=48&event_id=2520&meta_id=767493 Accessed 5.4.2024.

⁵ DeSouza, P.N., Ballare, S. and Niemeier, D.A. *The environmental and traffic impacts of warehouses in southern California*. Journal of Transport Geography 104 (2022)103440.

<https://www.sciencedirect.com/science/article/abs/pii/S0966692322001636?via%3Dihub>

⁶ Final Environmental Impact Report for the Mariposa Industrial Park. State Clearinghouse Number: 2020120283. 2.28.2022.

⁷ City of Fontana Truck Trip Generation Study 2003

<https://www.tampabayfreight.com/pdfs/Freight%20Library/Fontana%20Truck%20Generation%20Study.pdf>. Accessed 5.4.2024

“The correct CalEEMod run was based on a fleet mix that included approximately 10.7% heavy-heavy duty vehicles and 5.5% medium heavy duty vehicles; this was another adjustment made to the CalEEMod defaults to increase the accuracy and provide for adequately conservative results.”

“The Fontana study predicted different and higher truck trip percentages than did the Mariposa Industrial Park DEIR. For the purposes of the Mariposa Industrial project, this information cannot credibly be labeled “substantial evidence.” The data is derived from studies for a single project located in an entirely different geographic area. While the Fontana data may be useful and representative of projects in the San Bernardino and Riverside areas of Southern California, its applicability in rural northern California, an entirely different socio-economic area, cannot be assumed. No such study has been performed in the Stockton area, and in the absence of such data, the CalEEMod default values as modified by the consulting firm responsible for the project traffic studies, are considered by the City to be the best available and most reliable data.”

The City of Stockton can hardly be considered rural as the City is the twelfth most populated city right after Riverside, the eleventh most populated city.⁸ The City still does not have evidence that warehouses 100,000 do not pose a threat to human health and the environment, has not reviewed the Fontana Study since the study was based on 34 different sites not one, nor has the City considered in whole the comments by CARB, a responsible agency. During public meetings, residents requested information about the number of warehouses between 100,000 and 400,000 square feet. The same information presented in March was included in the feasibility analysis: “Since 2016, 37 building permits have been approved for new warehouses 100,000 square feet or greater (average size ±420,000 square feet) and the last 10 entitled logistics projects in Stockton measured an average total size range of 700,000 square feet to 1,000,000 square feet.” The land acreage associated with these 37 building permits was not disclosed nor considered.

Without a doubt, the scope of warehousing and associated environmental impacts have escalated with every Statement of Overriding Consideration the City of Stockton issues, without requiring all feasible mitigation, and contributing to degraded air quality. Further studies conducted have indicated that frequently truck trips are more than estimated within CEQA document.⁹ The South Coast Air Quality Management District continued evaluating truck trip impacts associated with warehouse projects and proposed Rule 2305 – Warehouse Indirect Source Rule, Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and PR 316 – Fees for Rule 2305. This Indirect Source Rule would not only regulate new 100,000 square feet warehouses but existing warehouses, applying to operators and owners of existing and new warehouses. This rule has been proposed for approval by the United States Environmental Protection Agency and is in the approval process.¹⁰ By 7.14.2024, the EPA Administrator is required to sign a notice of final rulemaking to approve, disapprove, conditionally approve, or approve in part and disapprove in part, the SIP submittal from California entitled South Coast Air Quality Management District Rule 2305, Warehouse Indirect Source Rule—Warehouse Actions and Investments to Reduce Emissions Program, based on a January 2024 proposed consent decree.¹¹

Significant air quality impacts are associated with warehouses of 100,000 square feet as evidenced through studies and rule-making processes. The City of Stockton 2040 General Plan goal to improve local air quality by reducing air impacts from mobile and stationary sources of air pollution does not support allowing warehouse projects between 100,000 – 400,000 square feet to conduct business as usual without the added public health benefits that the Industrial Warehouse Ordinance is meant to achieve.

⁸ California Cities by Population. <https://worldpopulationreview.com/states/cities/california>

⁹ Warehouse Truck Trip Study, South Coast Air Quality Management District <https://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finalswg071714.pdf?sfvrsn=2>

¹⁰ Proposed approval <https://www.regulations.gov/docket/EPA-R09-OAR-2023-0494/document?pageNumber=2> and proposed consent decree <https://www.federalregister.gov/documents/2024/01/22/2024-01113/proposed-consent-decree-clean-air-act-citizen-suit>

¹¹ Proposed consent decree text. <https://downloads.regulations.gov/EPA-HQ-OGC-2024-0015-0002/content.pdf>

Ordinance Applicability

Staff identified Stockton Municipal Code Section 16.04.050 that already regulates project applicability and “vested” rights of completed applications when new Code standards are adopted. If the proposed modification is adopted then the Industrial Warehouse Ordinance would not apply to new logistic warehouse facilities constructed on vacant properties that were located within the Stockton city limits prior to December 31, 2023, and would only apply towards future warehouse logistics development projects that were not currently in the Stockton city limits as of December 31, 2023.

The inclusion of the additional “vesting” option proposed by Modification #2: Applicability for new logistic warehouses (Hollman LLC) would reduce the City’s use of the standards to just future annexation projects that meet the size thresholds. The feasibility analysis indicated that annexation of boundary farmland is to be avoided, yet if the benefit of the Ordinance is to be achieved, proposed modification must be rejected.

The City of Stockton’s practice of continuing to do business as usual has created the environmental justice and environmental health harms experienced by those providing testimony to the City Council when the Industrial Warehouse Ordinance was considered on 12.5.2023 and 12.12.2023. Environmental justice and environmental health harms experienced by those providing testimony to the Planning Commission on 3.28.2024 indicate that community support for improved public health considerations and environmental justice considerations are warranted.¹²

The effective date of Industrial Warehouse Ordinance was January 11, 2024, and any project not already vested with entitlements and permitting applications MUST abide by the provisions of the Industrial Warehouse Ordinance, at a minimum. **Put residents’ health and welfare concerns over those of an unknown number of speculative developers and do not adopt the proposed modification.**

Minimum Setback Requirements

The setback distances and uses are inconsistent with the adopted 2040 City of Stockton General Plan. The new Industrial Warehouse Development Standards adopted December 12, 2023, and effective January 11, 2024:

- a. Unless determined to be physically impossible, when adjacent to sensitive receptors, a loading dock door shall be oriented away from the sensitive receptor and located a distance of 300- feet from said receptor, unless the dock doors are utilized by zero emission trucks and equipment only. The building and auto parking can be located within the 300-foot distance. A sensitive receptor shall be defined as schools, health care facilities, libraries, churches, correctional facilities, parks/recreational facilities, in home daycare, health facilities (hospitals, long term care facilities, retirement, and nursing homes) or more than two directly contiguous residential units.
- b. A 20-foot landscaped planter (buffer) shall be installed along the property line adjacent to a sensitive receptor.
- c. The buffer shall be landscaped and not be less than 50 percent of the total buffer size with two rows of 15-gallon trees planted along the length of the property line adjacent to the sensitive receptor.
- d. The buffer landscape can include areas to be used for bioswales, retention/detention areas and/or other stormwater and water quality management areas in compliance with SMC Section 16.56 (Landscaping).
- e. The buffer area shall include a minimum 10-foot solid decorative wall(s), or landscaped berm and wall, or landscaped berm adjacent to sensitive receptors unless a noise analysis indicates an alternative height is needed for sound attenuation.

The Modification #3: Change Minimum Setback Requirements (Stockton Environmental Justice Advocates (SEJA)) included adjustments to setback standards (SMC Section 16.80.390(B)(1)(a)): Addition of a 2:1 setback to height ratio building requirement; remove options for design flexibility by not allowing “physically infeasible” from consideration for site with unique constraints in complying with 300-foot setback distance or the use EV trucks within the 300-foot setback area, and prohibit loading docks, truck entries, and drive aisles

¹² Minutes of the 3.28.2024 City of Stockton Planning Commission

https://stockton.granicus.com/GeneratedAgendaViewer.php?view_id=49&clip_id=8618 and verbal comments https://archive-video.granicus.com/stockton/stockton_419bcd45-ee01-11ee-98bb-0050569183fa.mp4

from abutting adjacent sensitive receptors.

According to the existing City of Stockton Municipal Code § 16.80.170 Industrial uses (IL, limited industrial, and IG, general industrial, zoning districts that are located on two or more acres), commercial structures adjacent to residential zoning districts over 35 feet in height shall be set back from the property line adjoining the residential zoning district *an additional one foot for each two feet of building height over 35 feet*. According to Table 2-3 Development Standards (below) there is either a 60-foot maximum or no maximum for height and a minimum set-back of 10 feet for all industrial units, except for the Industrial Warehouse Ordinance setbacks as set forth previously. An existing set-back for a 100-foot-tall building would be 42.5 feet (32.5 + 10). This is insufficient for anywhere in our community, residential or commercial. Even in commercial areas people must breathe. The existing Development Standards are not consistent with creating walkable communities.

Municipal code setback standards are to ensure the provision of open areas around structures for: visibility and traffic safety; access to and around structures; *access to natural light and ventilation; separation of incompatible land uses; and space for privacy, landscaping, and recreation*.

The proposed height consideration: additional 2 feet of setback for each foot of height should apply to all industrial projects in all zoning districts. The extended setback can include areas for workers to recreate in nature or walking on pathways, have an outdoor lunch area and contain trees planted that meet the minimum requirements of the July 2024 Green Building Code and beyond. Some of these amenities will be proposed by City Staff for Planning Commission to consider.

Typically, property setbacks are building restrictions imposed on property owners. This can be a distance from a curb, property line, or structure **within which building is prohibited**.

The 300-foot buffer, as proposed and not negotiable, is not going to be open but will only restrict active trucking operations relating to loading and unloading. This is inadequate. The 300-foot buffer as adopted could contain a building or automobile parking.

Staff has indicated in the staff report, included for the 5.9.2024 Planning Commission meeting, that some other clarifying language could be proposed as follows:

To address clarity concerns raised by SEJA and the development industry at the Planning Commission informational session held in March, staff proposes making clarifications on uses and design elements that may be included within the 300' setback area when adjacent to sensitive receptors. These uses and elements include stormwater basins, daytime employee gathering areas, pedestrian and bicycle pathways, outdoor storage areas, and an internal drive aisle for autos, trucks and emergency vehicles to circulate around the building, that would be located as close to the building as possible and not abut adjacent sensitive receptors. While the existing code did not explicitly include these, they are common elements of site design for industrial and office facilities. This language is not included in the proposed ordinance redlines (Attachment C - Redline/Strikeout Ordinance) as staff requests Planning Commission input prior to inclusion. With the Commission's concurrence, the language would be added for the City Council's review and consideration.

The proposed language that the Planning Commission is to consider on 5.9.2024 does not specify that the building would not be located within 300 feet of sensitive receptors and would include a "driveway" by which trucks and auto will travel. Leaving only the 20-foot landscaped buffer containing at least two rows of tree and some sound barrier as a true setback. This is inadequate.

The Amendment Feasibility Analysis (Attachment E), referenced previously, introduces some confusion with the language of the modification request, the proposed language, and the existing ordinance language. The adopted Industrial Warehouse Ordinance allows automobile parking and building within the 300-foot buffer.

The development considerations put forth in the Amendment Feasibility Analyses were focused on a situation where a 100,000 square foot warehouse is planned for a 5.5-acre lot. Lots of this size are located where sensitive receptors are also located and likely would never be proposed in an area where higher socioeconomic residents reside. No evaluation of the lot acreage for those 37 warehouses building permits issued since 2016 was included in the feasibility analysis.

From the Amendment Feasibility Analysis Attachment E:

“The proposed standard is consistent with State, local, and best management practices. The new loading standard maintains the intent of the existing 300-foot buffer requirement and increases the setback distance from the building to the sensitive receptors which will reduce noise, visibility, and possibly also odor impacts.”

“It is important to note that, absent adoption of the ordinance, ministerial projects would not be required to exceed minimum standards, therefore, these standards will lessen environmental impacts for all future projects and align with the State’s objectives on reducing noise, visibility, and possible odor impacts to sensitive receptors.”

“The modification could increase air quality protection of adjacent sensitive receptor; however an analysis would need to be performed, which would be difficult without project specific impacts to compare to.”

“This modification could also lead to the accelerated loss of farmland as future annexation projects may need to bring in additional acreage to accommodate the 300-foot buffer.”

The Amendment Feasibility Analysis indicates that the proposed standard (absence any height consideration) is consistent with best practices and would be positive for those sensitive receptors then goes on to state, “ministerial projects would not be required to exceed minimum standards”. This is very confusing as no evidence or example is provided to describe a warehouse project that would be ministerial instead of discretionary. The analysis goes on to state that further farmland conversions would occur if these proposed modifications are adopted. All recent warehousing projects in the City of Stockton have been located on farmland. The City of Stockton has allowed annexation of farmland and through zoning changes within the scope of the 2040 General Plan has converted hundreds of acres into industrial, even when those farmlands are within the floodplain and include a designated floodway.

The Amendment Feasibility Analysis stated that the required buffer could necessitate the developer purchasing additional land area that would provide no economic benefit for the property owner or tenant. This additional land buffer could provide an economic benefit to the community associated with better air quality translating into longer life spans for residents already pollutant overburdened. The costs of already zoned industrial land are high but that has not stopped development from purchasing land and seeking rezoning of agricultural land and annexation. How many of these projects have occurred in Stockton in the last 5 years, ten years, and twenty years?

The Amendment Feasibility Analysis included an economic analysis and referenced the *CBRE Central Valley Industrial Figures Q3 2023* report stating Stockton has the third highest lease rates in the Central Valley and any cost increase would put the City of Stockton at an economic disadvantage.

The Q1 2024 CBDRE report available January 2024 indicates that Stockton is now the fourth highest of the five cities (with available data) based on average asking rates, with Ceres the fifth as shown below.¹³ The City of Stockton average asking price is \$0.71 whereas the City of Tracy is \$0.82. Is this cost associated with mitigation measures or mitigation fees? No analysis for possible reasons for an \$0.11 difference.

¹³ CBRE Quarter 1 2024 Marketing Analysis. <https://mktgdocs.cbre.com/2299/c225f7f3-e545-46c5-afe6-b25fee525daf-2145779021/v032024/Central%20Valley%20Industrial%20Figures%20Q1%202024.pdf>

FIGURE 2: Submarket Statistics

Submarket	Net Rentable Area	Total Vacancy (%)	Total Availability (%)	Average Asking Rate NNN (\$)	Q1 Net Absorption	YTD Net Absorption
Ceres	6,680,347	8.0	8.0	0.66	0	0
Lathrop	18,240,950	8.5	9.6	0.73	0	0
Lodi	5,518,023	0	0	N/A	0	0
Manteca	6,411,159	2.1	2.6	0.72	0	0
Modesto	14,630,314	0	0	N/A	0	0
Oakdale	890,391	0	0	N/A	0	0
Patterson	5,008,183	0	0	N/A	0	0
Stockton	42,843,831	9.1	12.1	0.71	287,710	287,710
Tracy	32,687,823	6.8	7.2	0.82	102,000	102,000
Turlock	2,875,028	2.0	2.0	N/A	0	0
Market Totals	135,891,049	6.2	7.4	0.74	389,710	389,710

Source: CBRE Research, Q1 2024

The previously referenced South Coast Air Quality Management District Rule 2305 – Warehouse Indirect Source Rule included a *Final Socioeconomic Impact Assessment* which reported risks posed from PM_{2.5} and diesel PM are higher for populations within 0.5 miles of warehousing facilities.¹⁴ Also, communities within 0.5 miles have an average asthma rate of 56 per 10,000 individuals (64th percentile) and experience heart attacks at a rate of 9.2 per 10,000 individuals (65th percentile) supporting further mitigation of warehouse related air quality impacts.

According to the Asthma and Allergy Foundation of America in their 2023 Asthma Capitals Report the City of Stockton is ranked as the 41st worse city with a total score of 63.50 with worse than average number of emergency department visits for asthma.¹⁵ The City of Los Angeles, a major metropolitan area within the South Coast Air Quality Management District, ranks 58th with a total score of 57.48 with an average number of emergency department visits for asthma, indicating that for these measures Stockton has worse health outcomes that can be related to air quality.

CARB funded the Stockton AB617 Community Emission Reduction Plan because air quality impacts were significant and affecting resident health as outlined in the Appendix G, Health Impacts of Local Air Pollution.¹⁶ While these efforts have been underway, the City of Stockton and Port of Stockton have made and continue to make Statements of Overriding Significance allowing warehouse development to occur without mitigating the impacts estimated to levels less than significant, worsening air quality in the community.

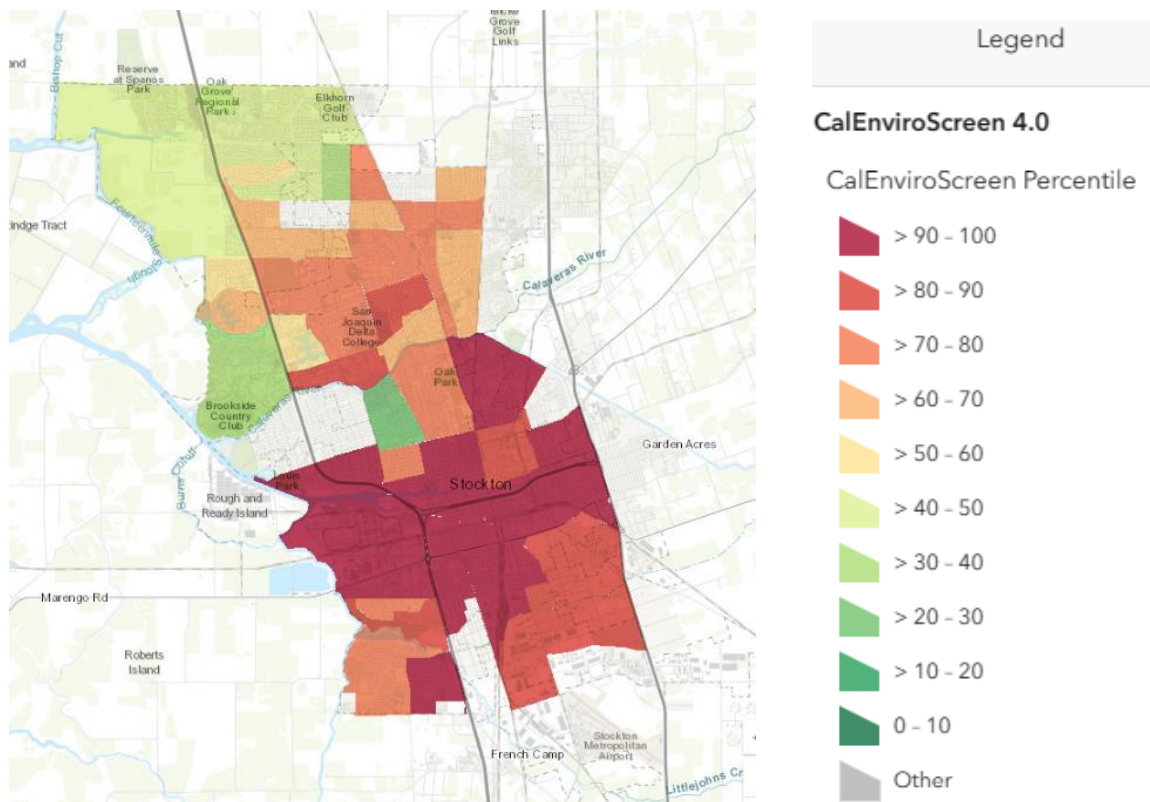
Differences between parts of Stockton are easily visualized using the CalEnviroScreen 4.0 Data Dashboard describes the Stockton areas as follows with the darker colors indicating higher pollutant burdens and vulnerability to poor health outcomes.¹⁷

¹⁴ USEPA Docket R09-OAR-2023-094 SCAQMD Final Socioeconomic Impact Assessment
<https://www.regulations.gov/document/EPA-R09-OAR-2023-0494-0013>

¹⁵ <https://aafa.org/wp-content/uploads/2023/09/aafa-2023-asthma-capitals-report.pdf>

¹⁶ SJVAPCD Stockton CERP Health Impacts of Local Air Pollution. https://community.valleyair.org/media/ytlh1bu/stockton-appendix_health.pdf

¹⁷ CalEnviroScreen 4.0 <https://experience.arcgis.com/experience/6b863505f9454cea802f4be0b4b49d62>



A 300-foot partial setback is not adequate to protect an already pollutant overburdened community as pollutants are not contained within such a limited boundary, particularly when considering warehousing projects over 1 million square feet containing multiple buildings. A tiered setback is needed to specifically protect sensitive receptors from warehouse developments over 100,000 to over 1,000,000 million square feet.

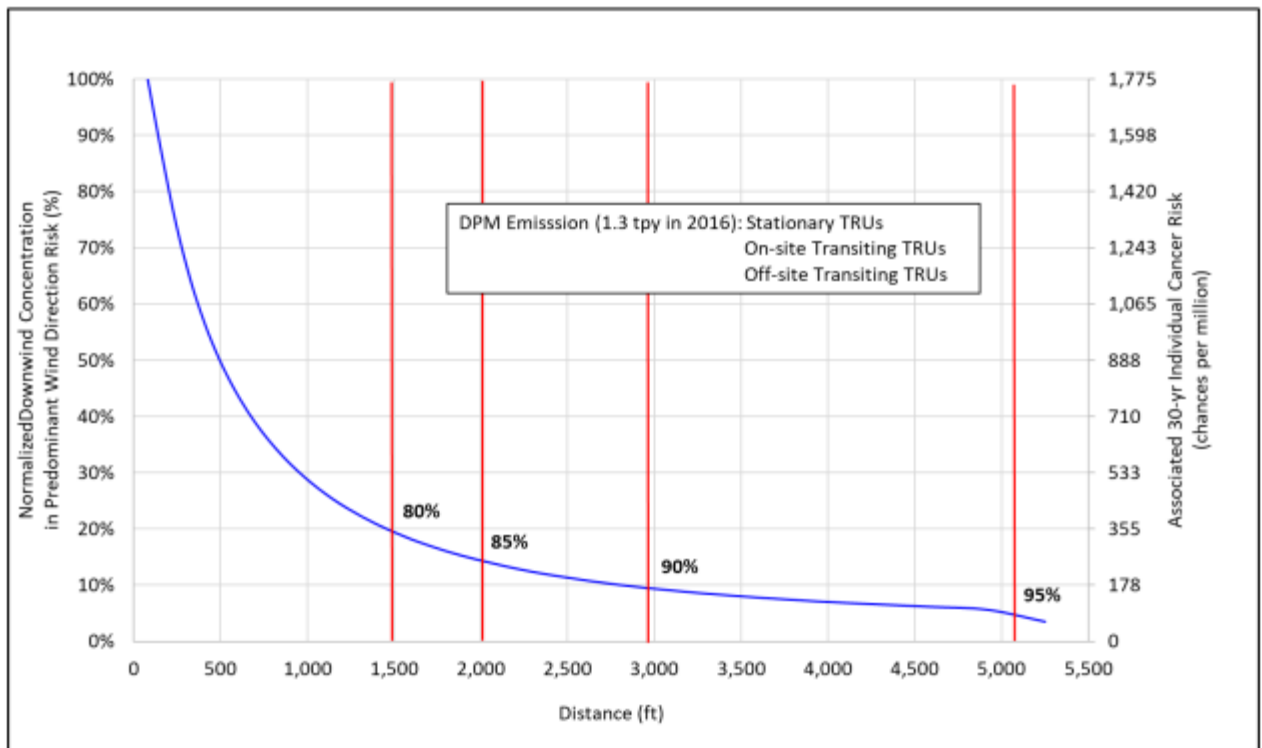
The existing Industrial Warehouse Ordinance does not consider development projects approved at the conceptual level, then the lots are split into smaller lots before specific site plans are proposed for building permit applications. The City Council will be considering an over 6 million square feet project on over 400 acres of prime farmland, farmland of statewide importance and unique farmland which is proposed to be split up into 13 development lots utilizing conceptual site planning for CEQA analysis. The existing Industrial Warehouse Ordinance does not specify that either the 100,000 square feet or 400,000 building size related setback would occur if conceptual development were proposed and then subdivided and developed piecewise.

Furthermore, greater notifications and protections are needed for residential and sensitive receptors than 300 feet. This notification of affected residents now is only directed to addresses within 300 feet of a project. This notification, pursuant to Municipal Code is for a public meeting two weeks in advance of a project that will be considered by City Council. A 300-foot notification distance is insufficient when the impacts of warehouse projects extend well beyond based on CARB modeling, as will be shown. According to California Air Resources Board (CARB) guidance, siting warehouse facilities so that their property lines are at least 1,000 feet from the property lines of the nearest sensitive receptors is recommended to protect public health.¹⁸ CARB has continued to quantify the impacts associated with freight movement and has developed a conceptual freight handbook with recommended setbacks of 500 feet to reduce cancer risks.¹⁹

¹⁸ 2022 Warehouse Best Practices. <https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf?mibextid=Zxz2cZ>

¹⁹ 2019 Concept Paper for the Freight Handbook. https://ww2.arb.ca.gov/sites/default/files/2020-03/2019.12.12%20-%20Concept%20Paper%20for%20the%20Freight%20Handbook_1.pdf. Accessed 5.4.2024

Figure 2. Normalized Downwind Diesel PM Concentration and Associated 30-Year Cancer Risk by Distance



CARB should be consulted to develop transition zone widths based on science. Heart disease, asthma, low birth weights are already linked to air pollution in Stockton relating to historic land use decisions. The City of Stockton has an opportunity to do better.

On July 1, 2024, updates the CalGreen Building Standards referenced in the Industrial Warehouse Ordinance go into effect and will increase standards related to other issues under consideration.²⁰

- We recommend that the warehouse size threshold not be increased but remains at 100,000 square feet. Numerous studies have indicated significant negative impacts with warehouses of this level.
- We recommend that there be no exemptions as put forth.
- We recommend that greater setbacks are incorporated into development standards. There is still language being considered for Modification #3 and the feasibility analysis was incomplete as stated elsewhere.
- We recommend a tiered approach for setbacks that includes some additional consideration for warehouses with heights over 60 feet or approximately 6 stories tall.
- We recommend that CARB be consulted so that a health-based setbacks be determined for Stockton residents rather than a developer based economic approach. The health and wellbeing of the residents of Stockton living near warehouses, and warehouse districts where impacts can overlap with cumulative impacts, should come first. As shown above the CBDE data indicates that Stockton is not in dire need of more rentable warehouse area but our residents are in dire need of protection from warehouse related impacts.

²⁰ CalGreen Building Standards 2024. https://www.iccsafe.org/wp-content/uploads/errata_central/2022-CA_Green_July24-Supp_COMPLETE.pdf

The practice of making Statements of Overriding Consideration for economic development must end in our community. Recently, 3.12.2024, a public hearing was noticed to approve an office and industrial sales tax incentive agreement between the City of Stockton and Home Depot USA, Inc., and amend the office and industrial sales tax incentive program guidelines. The result of the incentive would have been a fifty percent reduction in sales taxes collected from these businesses to “attract and retain businesses and to facilitate easier engagement with enterprises.” We submitted comments and shortly thereafter the public hearing was cancelled, and the item pulled from the agenda. We ended our comments with “Give the people a break and reject the Home Depot (TCNOR CAL) agreement and do not move forward with any more incentives until our infrastructure is made whole.” We have many e-commerce facilities that are located here in Stockton, in part because we are “cheap”, giving away our air quality, and not requiring mitigation fees that are commensurate with the actual costs to our infrastructure, human health and the environment. In December 2023, the Port of Stockton made a statement of overriding consideration regarding certification of the Home Depot (TC NOR CAL) FEIR leaving unmitigated impacts that affect the already pollutant overburden residents, within and beyond the AB617 boundary. Yet, the City has specifically offered a tax reduction for the Home Depot project.

We have been told since the Amazon Warehouse, Sanchez-Hoggan Annexation 2020 FEIR certification, and annexation of farmland, with a Statement of Overriding Consideration, that a Nexus study was underway to update the 1990’s mitigation fees that the City of Stockton uses to access City infrastructure impacts resources. Stockton residents continue to be overburdened with a six percent utility taxes for soaring utility costs, yet instead of designated the “windfall” for redevelopment to improve conditions for residents, the City deposits those funds into the general fund for unrestricted use, with those general funds used to pay for planning and construction of infrastructure needs associated with warehouse development (i.e. Mariposa Lane expansions and Airport Way improvements near French Camp Road).

We suggest that the City of Stockton consider these comments and those of Shute, Mihaly, and Weinberger when performing feasibility analyses that take into account more than just development economics. We need development standard improvements, but these should be focused on improving conditions of our disadvantaged communities. Thank you for your consideration of our comments as you evaluate proposed language. You may contact the undersigned to discuss further.

Sincerely,

Mary Elizabeth M.S., R.E.H.S.
Delta-Sierra Group
Conservation Chair
Sierra Club
Melizabeth.sierra@gmail.com

Margo Praus
Delta-Sierra Group
Executive Committee Chair
Sierra Club

Eric Parfrey
Delta-Sierra Group
Sierra Club

TABLE 2-3.A ZONING DISTRICT DEVELOPMENT STANDARDS																	
Development Feature (See Division 8 for definition of each)	REQUIREMENT BY ZONING DISTRICT																
	RE	RL	RM	RH	CO	CN	CG	CD	CL	CA	IL	IG	PT	PF	OS	MX, UC	
Minimum lot size	Minimum area and width for new parcels. For a minimum specific zoning district area size requirement, see Section 16.16.020 (Zoning districts established)										Per master development plan						
Area	1 ac	5,000 sf		7,500 sf	7,500 sf	No minimum									5 acres		
Width	150 ft	50 ft			No minimum												
Density	Number of dwellings permitted in a residential subdivision or in a multifamily residential project on an acre (net) of land.																
Dwelling units per net acre (minimum-maximum)	For allowable densities see Table 2-3.B																
Setbacks	Minimum setbacks required. See Division 8 for definitions. See Section 16.36.110 for setback measurement, allowed projections into setbacks, and exceptions.																
Front	30 ft	20 ft	15 ft	15 ft	10 ft	None*	10 ft	None			10 ft				20 ft		
Side(s)	10 ft	5 ft			5 ft	None required, except when adjacent to a residential zone, structures shall be set back a distance of 10 feet or as required by Division 3 for specific land uses. In the CA zone, structures shall be set back from a residential zone equal to their height.											20 ft
Sides, street	10 ft	10 ft			10 ft	None*	10 ft	None			10 ft				20 ft		
Rear	30 ft	10 ft			10 ft	None required, except when adjacent to a residential zone, structures shall be set back a distance of 10 feet or as required by Division 3 for specific land uses. In the CA zone, structures shall be set back from a residential zone equal to their height.											20 ft
Site coverage	Maximum percentage of site area that may be covered by structures. See Division 8 for definitions. See Section 16.36.120 for exceptions.																
Maximum coverage	25 %	50%			60%	100%	60%	100%	50%		60%		50%		1%		
Height limit	Maximum height for primary structures. See Section 16.36.090 for height measurement and exceptions.																
Maximum height	35 ft	35 ft			45 ft	35 ft	45 ft	No limit	75 ft	45 ft	60 ft	No limit	75 ft	35 ft			
Landscaping	See Chapter 16.56 (Landscaping Standards)																
Parking and loading	See Chapter 16.64 (Off-Street Parking and Loading Standards)																
Signs	See Chapter 16.76 (Sign Standards)																
* If adjacent to residential zoning districts, the setback shall be none if the structure in the CN zoning district is at least 20 feet from the residential zoning district, otherwise the setback shall be 10 feet.																	

Glossary Division 8 : † Warehouses (Land Use). Facilities for the storage of farm products, furniture, household goods, or other commercial goods of any nature. Includes cold storage. Does not include warehouse, storage or mini-storage facilities offered for rent or lease to the general public ("Personal storage facility—Mini-storage"); warehouse facilities in which the primary purpose of storage is for wholesaling and distribution ("Wholesaling and distribution"); or terminal facilities for handling freight ("Vehicle and freight terminals").

Warehouses are listed within the CIO Commercial-Industrial Overlay ALLOWABLE LAND USES AND PERMIT REQUIREMENTS IN THE COMMERCIAL-INDUSTRIAL OVERLAY²¹ -

No specific Zoning District is listed for warehouses, so it is assumed that the following zoning districts outlined in the 2040 General Plan include:

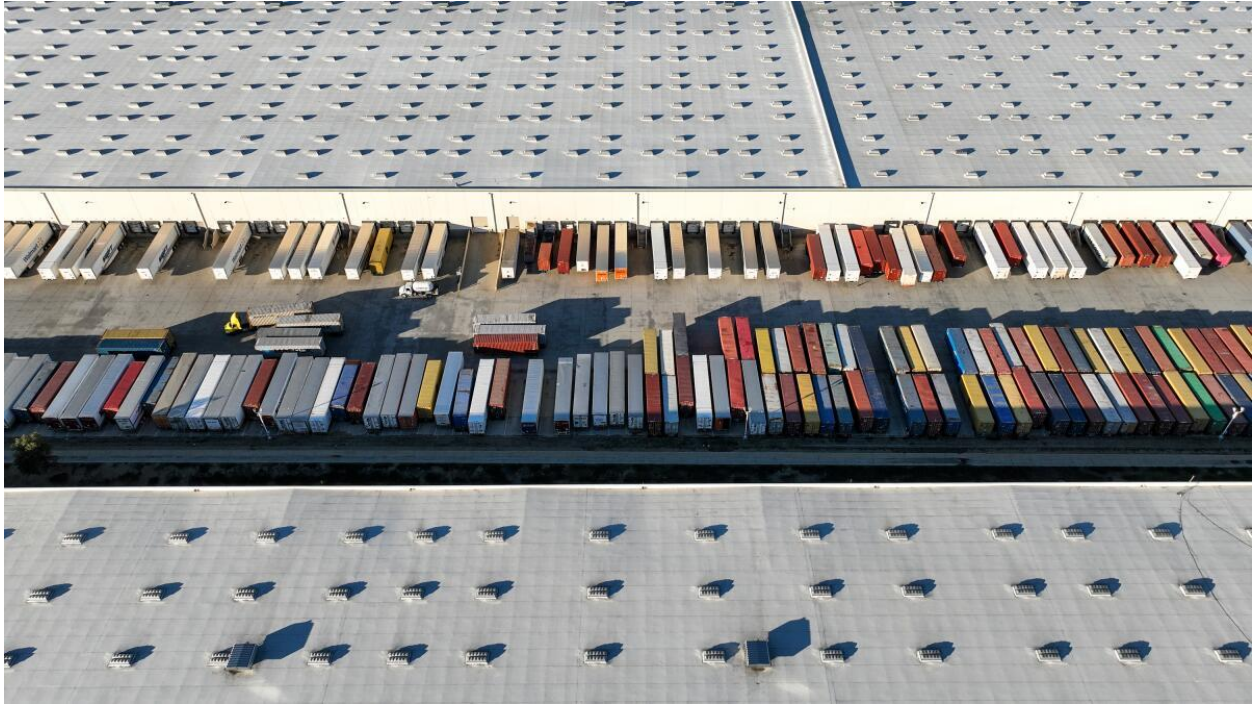
Industrial Zoning Districts.

1. IL (Industrial, Limited) District. The IL zoning district is applied to areas appropriate for light manufacturing uses that may generate more nuisance impacts than acceptable in commercial zoning districts and whose operations are totally conducted indoors. Includes retail stores and ancillary office uses. The IL zoning district is consistent with the Industrial land use designation of the General Plan.

2. IG (Industrial, General) District. The IG district is intended to allow a wide range of industrial land uses, including uses that may be conducted outdoors or associated with nuisance or hazardous impacts. Includes ancillary office uses. The IG zoning district is consistent with the Industrial land use designation of the General Plan

²¹ <https://ecode360.com/43712791#43712900>

Gavin Newsom signs controversial bill regulating California warehouse development



A Walmart distribution center along Interstate 15 in Eastvale in the Inland Empire.

(Robert Gauthier/Los Angeles Times)

By [Rebecca Plevin](#) Staff Writer

Sept. 29, 2024 5:46 PM P

Gov. Gavin Newsom has signed a controversial bill that establishes siting and design standards for industrial warehouses that, according to supporters, would better protect the health of nearby residents.

The legislation comes as developers have [converted large swaths](#) of property along Inland Empire freeways into a logistics corridor for e-commerce, connecting goods shipped into Southern California ports with online shoppers across the nation. Although proponents of the developments say they bring jobs and infrastructure improvements, many residents living in the shadow lament the pollution, traffic and neighborhood disruption.

Beginning in 2026, Assembly Bill 98 will prohibit cities and counties from approving new or expanded distribution centers unless they meet specified standards. New warehouse developments will need to be located on major thoroughfares or local roads that mainly serve commercial uses. And warehouses will need to be set back several hundred feet from so-called “sensitive sites” such as homes, schools and healthcare facilities.

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Additionally, if a developer demolishes housing to make way for a warehouse, the bill will require two new units of affordable housing for each unit that is destroyed. The developer will have to provide displaced tenants with 12 months' rent.

Assemblymember Juan Carrillo (D-Palmdale), co-author of the legislation, previously described the measure as a "very delicate compromise" that resulted from lengthy negotiations among a group that included labor, health, environmental and business representatives.

While some labor organizations supported the bill, environmental, community and civic groups statewide objected to the secrecy in which the bill was crafted in the final days of the session and said it fails to hold warehouse developers to higher standards.

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Several cities also opposed the legislation, which, according to an analysis by the Senate Appropriations Committee, requires general plan updates that could result in one-time costs for cities and counties ranging from tens of millions to potentially hundreds of millions of dollars.

The League of California Cities is committed to fixing this "costly, burdensome bill" during next year's legislative session, President Daniel Parra said in a statement Sunday.

"AB 98 is a massive unfunded mandate that will harm our cities, stifle job growth, and threaten the economic lifeblood of communities throughout California," he said.

Environmental advocates are especially concerned about the bill's setback requirements for projects involving warehouses 250,000 square feet and larger that are within 900 feet of homes, schools, parks or healthcare facilities.

In those cases, the bill requires that truck loading bays are located at least 300 feet from the property line in areas zoned for industrial use and 500 feet from the property line in areas not zoned for industrial use. Warehouses would also need to comply with design and energy efficiency standards.

Advocates argued the bill would simply enshrine current warehouse development practices into law and undermine local efforts to advocate for the much bigger setbacks recommended by state agencies.

In [a 2022 report](#) on best practices for warehouse projects under the state's environmental laws, the state attorney general's office recommends locating warehouse facilities so that their property lines are at least 1,000 feet from the property lines of sensitive sites such as homes and schools. It cites the [state Air Resources Board](#), which in 2005 estimated an 80% drop-off in pollutant concentrations at approximately 1,000 feet from a distribution center.

In a statement issued Sunday, environmental groups and community organizations called on the governor and Legislature to work with them next year to get "real protections for our communities."

"This is disappointing for our communities who will have to bear the brunt of weak standards," said Andrea Vidaurre, co-founder and policy analyst for the People's Collective for Environmental Justice in San Bernardino.