VAUGHN WATER COMPANY
MEADOW CREEK WELL WATER SUPPLY AND TREATMENT FACILITY

ENVIRONMENTAL DOCUMENTATION

DRAFT INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

MAY 2023

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I. MITIGATED NEGATIVE DECLARATION

As Lead Agency under the California Environmental Quality Act (CEQA), Vaughn Water Company has reviewed the project described below to determine whether it could have a significant impact on the environment because of its development. In accordance with CEQA Guidelines Section 15382, "significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

II. PROJECT NAME

Meadow Creek Well Water Supply and Treatment Facility

III. PROJECT LOCATION

The project is located on APN 526-010-14 near the intersection of Meadow Creek Street and Polo Drive in Section 18, T29S, R27E, M.D.B.&M. in the City of Bakersfield. See Figure 1 herein.

IV. PROJECT DESCRIPTION

The proposed project is for Vaughn Water Company and involves drilling and equipping a new municipal water well, constructing an Ozone Treatment facility, and connecting it to the existing VWC distribution system.

The well site property is approximately 105-ft by 210-ft or approximately ½-acre. The site is currently irrigated lawn as part of the community park landscaping. The grass and sprinkler system will be removed within the limits of the well site and the site graded to be level and uniform. The earthwork will involve moving approximately 470 cubic yards and the material will balance so there is no import or off-haul of dirt.

The site grading is anticipated to involve approximately 20 working days. It is anticipated that the following pieces of equipment will be used during construction activities:

- Loader
- Backhoe
- Skip and Drag
- Sheepsfoot Compactor

The well is planned to be drilled to an approximate depth of 1,500-ft using the reverse rotary method. Water quality zone testing will be performed in the well pilot hole in an effort to complete a well not requiring treatment. The well

construction work will include installing a 50-ft deep, 36-inch diameter steel conductor, drilling a 17 ½ - inch diameter pilot hole, performing geophysical logging, water quality depth sampling, reaming of the pilot hole to 28-inch diameter, installation of 16-inch diameter steel casing, installation of gravel pack, installation of a cement annular seal, and well development. The initial development water will be disposed of in a 20,000 gallon tank and removed from the site. The development water will then be discharged to the existing storm drain system. It is expected that the completed well will have hydrogen sulfide and that well head treatment in the form of ozonation will be used to remove taste and odor.

The production well drilling phase will involve the drilling, construction, and development of a new municipal water supply well. It is anticipated to involve approximately 90 working days with well drilling activating taking place 24 hours per day, seven days per week for approximately 45 of those working days. It is anticipated that the following pieces of equipment will be used during construction activities:

- Well Drilling Rig with Pipe Trailer
- Mud Pits
- Backhoe
- Loader
- Forklift

The site will require over-excavation to 18-inches below proposed concrete foundations and will be recompacted to 90% relative compaction to reduce the potential for settlement. Concrete foundations will be constructed for the deep well, the treatment building, the booster pumps, and the hydropneumatic tank.

The deep well will have a 10-ft by 10-ft by 30-in thick concrete foundation and be equipped with a vertical turbine pump and vertical hollowshaft electric motor with a variable speed drive. The well will have a 10-ft by 10-ft by 11-ft high removable metal enclosure building for noise attenuation. The site will be secured with approximately 575-ft of 8-ft tall masonry block wall and include a drive gate and a personnel gate to Meadow Creek Street for access. The well site will be surfaced with ¾" Class II aggregate base with the limits being the perimeter block wall. The 16-inch well discharge piping will be routed into an approximate 36-ft long by 28-ft wide by 16-ft tall steel building structure with a concrete foundation that is 46-ft by 38-ft by 6-in thick and that houses the electrical equipment including the meter main, motor control center, and PLC and also houses the treatment equipment. Two air conditioner units will be mounted on a concrete pad on the exterior of the building for interior climate control.

The flow rate from the well will be regulated by a flow control valve to maintain 2,500 gpm and will be metered. The water will pass through a Mazzei flash reactor

for mixing of the raw well water with a treated water bypass prior to entering the stainless steel storage tank. Ozone gas will be injected into a bypass flow stream of approximately 250 gpm as a strong oxidant to convert the sulfide to sulfate. The pressure drop across a venturi injector will create a suction that draws in the ozone. The ozone will be generated by a 54 lb/day ozone generator (Model CFS-14) manufactured by Suez. The ozone generator will be supplied cooling water and dry oxygen. It will utilize oxygen and electricity to convert oxygen to ozone. All ozone piping will be stainless steel. The process piping, electrical equipment, ozone generator, air compressor, air dryer, oxygen concentrator, and receiver tanks will be installed in the air-conditioned metal treatment building. An ozone analyzer will be installed inside the treatment building and at the ozone destruct unit to detect any ozone leaks and in that event the analyzer will send an alarm and shutdown the well and ozone operation.

A 6-ft by 7-ft by 8-in thick concrete foundation for a 12.5% sodium hypochlorite storage tank and chemical feed pump is located between the treatment building and the stainless steel storage tank. The well discharge piping will exit the building, transition underground, and resurface and enter an AWWA D103 stainless steel bolted tank that will be constructed with a gravel ring foundation. The stainless steel contact tank dimensions will be 30-ft diameter and 16-ft side shell height. The tank is also equipped with an ozone destruct unit that converts any residual ozone gas back to oxygen. The stainless steel tank discharge piping will be 18-inch diameter steel piping that feeds the suction header for three horizontal centrifugal split-case booster pumps. Each booster pump will have a concrete foundation that is 3-ft by 6-ft by 36-in thick. The booster pumps are equipped with variable speed drives. Two of the pumps are 50hp and the third pump is 100hp. The pump discharge piping then enters a 16-in diameter discharge header. The discharge header enters a 3,000-gallon hydropneumatic pressure vessel. There are two pressure vessel concrete footings each 13-ft long by 5-ft wide by 24-in thick. The 16-inch diameter booster station piping will transition below ground after the pressure vessel and transition to 16-inch C900 PVC pipe. The piping will connect to the existing VWC distribution system at the intersection of Meadow Creek Street and Polo Drive on the west side of the well site, approximately 30-ft in length, and a second connection will be made to the east to the existing VWC distribution system piping in Verdugo Lane via a 16-inch C900 PVC conveyance pipe routed approximately 650-ft east through the park in a private easement.

The well and treatment facility will be painted a neutral color (tan) and site landscaping installed around the perimeter of the site for it to be aesthetically pleasing and blend in with the adjacent park and neighborhood.

The well equipping and site development phase is anticipated to involve approximately 12 months. However, equipment will not run continually or on a daily basis throughout this entire construction period. It is anticipated that the following heavy pieces of equipment will be used for approximately 100 working days during construction activities:

- Excavator
- Loader
- Backhoe
- Crane
- Concrete Trucks
- Generator
- Air Compressor
- Small Tools
- Service Trucks

Construction of the project is anticipated to span an approximate 18 to 24 month period. The document and documents referenced in the Initial Study/Mitigated Negative Declaration are available for review at the North of the River Recreation and Park District located at 3825 Riverlakes Drive, Bakersfield, CA 93312.

As mandated by the California Environmental Quality Act (CEQA), the public review period for this document was 30 days (CEQA Section 15073[b]). The public review period began on July 28, 2023 and ended on Thursday, August 31, 2023. For further information, please contact Curtis M. Skaggs at (661) 393-4796 or cskaggs@djacivil.com.

V. CONTACT INFORMATION

Vaughn Water Company
10014 Glenn Street
Bakersfield, CA 93312
Contact Person: Van Grayer
Phone: (661) 589-2931

VI. FINDINGS

As Lead Agency, Vaughn Water Company finds that the project will not have a significant impact on the environment. The Environmental Checklist (CEQA Guidelines Appendix G) or Initial Study (IS) identified one or more potentially significant effects on the environment, but revisions to the project have been made before the release of this Mitigated Negative Declaration (MND) or mitigation measures will be implemented that reduce all potentially significant impacts to less-than-significant levels. The Lead Agency further finds that there is no substantial evidence that this project would have a significant effect on the environment.

VII. MITIGATION MEASURES

AESTHETIC MITIGATION MEASURES

AES-1 The project lighting will be less than 20-ft tall and the light fixtures shielded and directed downward to comply with the Kern County "Dark Skies Ordinance".

AES-2 The site will be painted a neutral color (tan), be screened with an 8-ft tall masonry block wall, and have landscaping installed around the perimeter of the site.

AIR QUALITY MITIGATION MEASURES

AQ-1 Water will be applied to the project site during construction grading, trenching, and backfilling operations to control dust and keep the project area clean.

AQ-2 The contract documents will require the Contractor to obtain and comply with a San Joaquin Valley Air Pollution Control District Dust Control Plan and to permit the ozone treatment and destruct system.

BIOLOGICAL RESOURCES MITIGATION MEASURES

BIO-1 The following are the Biological Recommendations (BR) proposed by Pruett Biological Resource Consulting, Inc. which are intended to reduce the potential impacts to biological resources during construction activities:

Pruett Biological Resource Consulting Incorporated's Biological Report states, "If ground-disturbing activities are planned during the nesting season for migratory birds that may nest on or near the site (generally February 1 through August 31), nesting bird surveys are recommended prior to the commencement of ground disturbance for project activities. If nesting birds are present, no new construction or ground disturbance should occur within an appropriate avoidance area for that species until young have fledged, unless otherwise approved and monitored by a qualified onsite biologist."

In addition to the above recommended species-specific protection measures, the following additional general measures should be adopted that represent best management practices:

BIO-2 Traffic restraints and signs should be established to minimize temporary disturbances during construction. All construction traffic should be restricted to designated access roads and routes, project site, storage areas, and staging and parking areas. Off-road traffic outside designated project boundaries will be prohibited. A 20 mile-per-hour (32 kilometer-per-hour) speed limit should be observed in all project construction areas, except as otherwise posted on County and City roads.

BIO-3 All equipment storage and parking during construction activities should be confined to the on-site construction area or public road right-of-ways.

BIO-4 All project construction activities involving excavation or surface disturbance should be limited to daylight hours with the exception of the well drilling activities.

BIO-5 Trenches should be inspected for entrapped wildlife each morning, prior to the onset of construction. Before such holes or trenches are

filled, they should be thoroughly inspected for entrapped animals. Any animals so discovered shall be allowed to escape voluntarily, without harassment, before construction activities resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.

BIO-6 All construction pipes, poles, culverts, hoses or similar structures stored at the construction site for one or more overnight periods should be capped or the ends covered in a way that prevents wildlife entrapment. Unburied pipes laid in trenches overnight should be capped. If a kit fox or other listed species is discovered inside a pipe, that section of pipe will not be moved until the animal leaves on its own, or the USFWS and the CDFW have been consulted.

BIO-7 All food-related trash items such as wrappers, cans, bottles and food scraps generated by project activities shall be disposed of in closed containers and removed at least once each week from the site. Deliberate feeding of wildlife is prohibited.

BIO-8 To prevent harassment of special-status species, construction personnel should not be allowed to have firearms or pets on the project site.

BIO-9 All equipment and work-related materials shall be contained in closed containers either in the work area or on vehicles. Loose items (e.g., rags, hose, etc.) should be stored within closed containers or enclosed in vehicles when on the work site.

BIO-10 All liquids should be in closed, covered containers. Any spills of hazardous liquids should not be left unattended until cleanup has been completed.

BIO-11 Use of rodenticides and herbicides on the project site should be prohibited unless approved by the USFWS and the CDFW. This is necessary to prevent primary or secondary poisoning of special-status species using adjacent habitats, and to avoid the depletion of prey upon which they depend. Label restrictions and other restrictions imposed by the U.S. Environmental Protection Agency (EPA), the California Department of Food and Agricultural (CDFA), and other state and federal legislation shall be

implemented. If rodent control must be conducted, zinc phosphide shall be used because of its proven lower risk to kit foxes.

BIO-12 Any employee who inadvertently kills or injures a listed species, or who finds any such animal dead, injured, or entrapped, shall be required to report the incident immediately to a designated site representative (e.g., foreman, project manager, environmental inspector, etc.), except animals killed on state and county roads when such mortality is not associated with project traffic. In the case of entrapped animals that are listed species, escape ramps or structures shall be installed immediately, if possible, to allow the subject animal(s) to escape unimpeded.

BIO-13 In the case of injured special-status wildlife, the CDFW shall be notified immediately. During business hours, Monday through Friday, the phone number is (559) 243-4017. For non-business hours, report to (800) 952-5400. Notification shall include the date, time, location, and circumstances of the incident. Instructions provided by the CDFW for the care of the injured animal shall be followed by the contractor onsite.

BIO-14 In the case of dead animal(s) that are listed as threatened or endangered, the USFWS and the CDFW shall be immediately (within 24 hours) notified by phone or in person and shall document the initial notification in writing within two working days of the findings of any such animal(s). Notification shall include the date, time, location and circumstances of the incident.

BIO-15 Prior to commencement of construction on any phase of work, work areas should be clearly marked with fencing, stakes with rope or cord, or other means of delineating the work area boundaries.

BIO-16 All personnel entering the project site should attend a worker orientation program. The worker orientation program will present measures required to avoid, minimize, and mitigate impacts to biological resources and will include, at a minimum, the following: federal and state endangered species acts; biological survey results for the current construction area; life history information for the species of concern; biological resource avoidance, minimization, and mitigation requirements; consequences for failure to successfully implement requirements; and procedures to be

followed if dead or injured wildlife are located during project activities. Upon completion of the orientation, employees should sign a form stating that they attended the program and understand all biological resource mitigation measures and receive a hard hat sticker or other means of identifying that they have attended the worker orientation. Forms verifying worker attendance should be filed at the applicant's office and be accessible to county, USFWS and CDFW staff. No untrained personnel will be allowed to work onsite with the exception of delivery trucks that are only onsite for one day or less, and are under the supervision of a trained employee.

CULTURAL RESOURCES MITIGATION MEASURES

CUL-1 An unexpected discovery of cultural resources during any phase of the project shall result in an immediate work stoppage in the vicinity of the find until the resources can be evaluated by a professional archaeologist. If the resource is deemed to be an "important" cultural resource, impacts will be mitigated by avoidance, where feasible.

CUL-2 Contractor shall provide a Cultural Resource Sensitivity Training Course to all personnel prior to any ground-disturbing activities associated with this project.

HYDROLOGY AND WATER QUALITY MITIGATION MEASURES

HYD-1 Vaughn Water Company regularly monitors the groundwater levels in their wells in order to ensure the wells are not excessively lowering groundwater levels in the area. Well monitoring will continue in nearby wells during construction activity.

NOISE IMPACT MITIGATION MEASURES

NOI-1 Noise levels will be increased on a temporary basis during construction activities. Installation of sound barrier walls will be installed around the south, west, and east sides of the well site during well drilling activities to reduce noise and light to nearby residents.

NOI-2 The temporary noise impacts attributed to construction will be mitigated for all construction, with the exception of the well drilling activities, by limiting the hours of construction on-site to weekdays, Monday thru Friday, from 7 am to 5 pm.

NOI-3 The well will be equipped with an insulated motor enclosure to mitigate motor noise and the electrical and ozone treatment equipment will be located within an insulated metal building. The booster pumps are equipped with variable speed drives to help run at optimum efficiency and shorter, quieter run times. The well site will be secured with an 8-ft masonry wall, which is 2-ft taller than normal, to help reduce the overall noise impact.

TRANSPORTATION/TRAFFIC

TRA-1 During construction there will be an increase in traffic as a result of material deliveries and construction crews, however construction signage will be provided to alert people around the construction activity as needed.

TRA-2 The Company will obtain all necessary encroachment permits for any proposed work within the County road right of way.

VIII. INITIAL STUDY

A. Project Title

Meadow Creek Well Water Supply and Treatment Facility

B. Lead Agency Name and Contact Information

North of the River Recreation and Park District
3825 Riverlakes Drive
Bakersfield, CA 93312
Contact Person: Steph Thisius-Sanders, Planning & Construction Director
Phone: (661) 392-2000

C. Project Location

The project is located on APN 526-010-14 near the intersection of Meadow Creek Street and Polo Drive in Section 18, T29S, R27E, M.D.B.&M. in the City of Bakersfield. See Figure 1 herein.

D. General Plan Designation

The General Plan Designation is 1.2 which refers to a land use designation of "Incorporated Cities".

E. Zoning

The zoning is listed as Open Space (OS) which was in consideration of the park.

F. Description of Project

See Section IV above.

G. Surrounding Land Uses and Setting

The surrounding land uses include Open Space (OS) to the north and east of the well site for the park and Single-Family Residential (R-1) to the south and west.

H. Public Agency Approvals

- California State Water Resources Control Board
- San Joaquin Valley Air Pollution Control District
- Kern County Environmental Health Department

- Kern County Permits Department

I. 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:

☒ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☐ Geology / Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☒ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☒ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☒ Transportation	☐ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☒ Mandatory Findings of Significance

J. 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.

☐ 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 (a) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (b) has been addressed by mitigation measures based on the earlier analysis as described on the attached sheets.

MITIGATED NEGATIVE DECLARATION

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.

INITIAL STUDY PREPARED BY: Dee Jaspar & Associates, Inc, Company Engineer, 2730 Unicorn Road, Bldg. A, Bakersfield, CA 93308, (661) 393-4796.

North of the River Recreation and Park District
3825 Riverlakes Drive
Bakersfield, CA 93312

07.19.2023

By: North of the River Recreation and Park District Date:

EVALUATION OF ENVIRONMENTAL IMPACTS

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 "Earlier Analyses", as described in (5) below 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.

i. AESTHETICS:

a) Have a substantial adverse effect on a scenic vista?	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact
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 a 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?	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less Than Significant with Mitigation Incorporated

a. This facility will be constructed near the intersection of Polo Drive and Meadow Creek Street. The well site is currently irrigated lawn as part of a community park and is surrounded by single-family residential, a park, and a school. There are no scenic vistas in the area.

Figure 1: Site Location (See Exhibit A for Full Size Version)

The well site will be developed with an 8-ft tall masonry block wall around the perimeter of the site to screen the well, pump, and piping facilities from the neighborhood and park. In addition, the site will be painted a neutral color (tan) and site landscaping installed inside the perimeter of the block wall to make the site aesthetically pleasing and blend in with the park and neighborhood.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

b. The project does not include the removal of any trees determined to be scenic or of scenic value, the destruction of rock outcroppings, or degradation of any historic buildings. The project is not near a scenic highway. All County roads and other land disturbed during installation of the new water mains will be returned to their existing conditions as part of this project.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

c. The project site is within a residential area, a park and an elementary school. It will be located in the southwest corner of the park in an area that is not utilized. Therefore, the project will not substantially degrade the existing visual character or quality of public views. All access roads and other lands will be returned to their existing conditions as part of this project. The well site will have an 8-ft tall masonry block wall around the perimeter of the site and landscape trees will be planted along the inside of the block wall to shield the on-site well and treatment equipment from neighboring properties.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

d. No new source of substantial light will be created as part of the project. The above ground buildings and other structures at the new municipal well facility will be painted to eliminate any substantial glare. Some site lighting will be provided at the new well site; however, the freestanding lighting at the well site will be less than 20-ft tall and the light fixtures will be shielded and directed downward to comply with the Kern County "Dark Skies Ordinance".

Mitigation Measure(s)

AES-1 Lighting will be less than 20-ft tall and the light fixtures shielded and directed downward to comply with the Kern County "Dark Skies Ordinance".

AES-2 The site will be painted a neutral color (tan), be screened with an 8-ft tall masonry block wall, and have landscaping installed around the perimeter of the site to blend in with the park.

Level of Significance

Impacts will be less than significant.

ii. AGRICULTURE RESOURCES:

Question	CEQA Determination
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?	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
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?	No Impact

a. The project site is located in a residential area and within the limits of an existing community park. Referring to the City of Bakersfield Land Zoning, the area is classified as Zone OS (open space). This land designation allows for water facilities under Permitted Uses (Ch. 19.44.020(C)). This project will not convert farmland to non-agricultural use.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

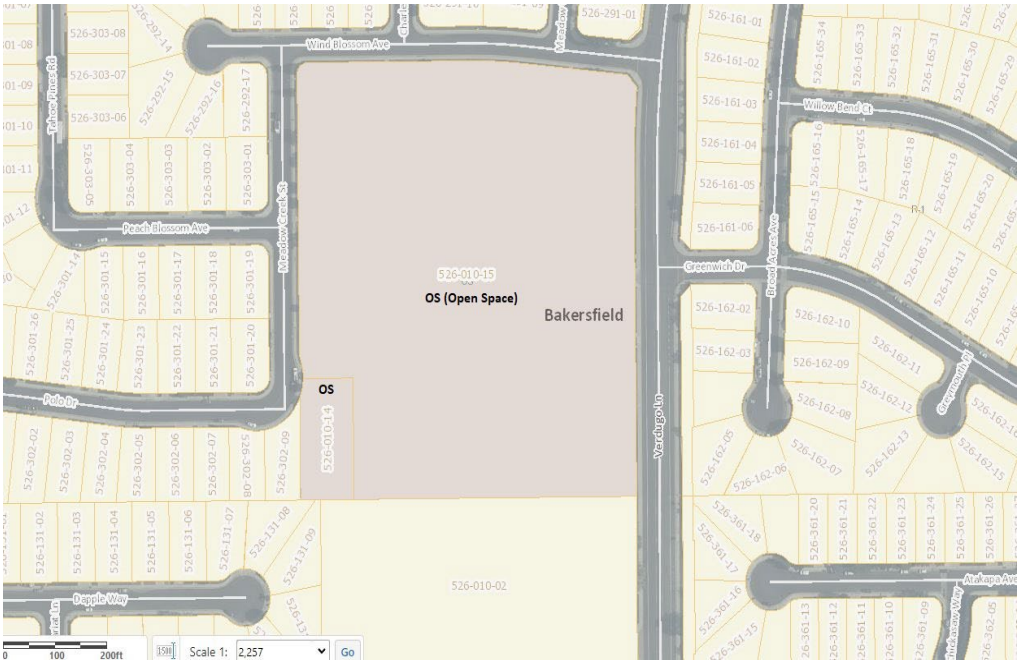


Figure 2: Zoning

b. The project site is primarily located within existing urban residential developments. It is not under the Williamson Act nor will it conflict with existing zoning.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

c. The project site will not conflict with existing zoning or cause rezoning of forest land. There are no forest lands or timberlands identified on the project site.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

d. The project site will not result in the loss of forest land or convert forest land to non-forest use.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

e. The project does not involve other changes to the existing environment that could result in conversion of farmland to non-agricultural use or forest land to non-forest use.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

iii. AIR QUALITY:

Question	CEQA Determination
a) Conflict with or obstruct implementation of the applicable air quality plan?	No Impact
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?	Less Than Significant with Mitigation Incorporated
c) Expose sensitive receptors to substantial pollutant concentrations?	Less Than Significant with Mitigation Incorporated
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less Than Significant with Mitigation Incorporated

a. The project will not involve any conflicts or issues with the applicable air quality plan. The project is within the San Joaquin Valley Air Basin (SJVAB) and under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The adopted Air Quality Attainment Plans for the San Joaquin Valley Air Basin set forth comprehensive programs that will lead the SJVAB into compliance with federal and State ambient air quality standards.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

b. Using project type and size categories, the SJVAPCD has pre-quantified emissions and determined a size below which it is reasonable to conclude that a project would not exceed applicable thresholds of significance for criteria pollutants. Short-term criteria pollutant emissions were calculated based on the anticipated construction timelines, equipment needed, and default emission factors for said equipment. The construction period is estimated to span approximately 18 to 24 months. Construction emission estimates also included PM_{10} reduction measures in compliance with SJVAPCD Regulation VIII requirements, including exposed area watering three times a day and vehicle speed reduction to less than 15 miles per hour. Construction related emissions over the

anticipated construction period are estimated to not exceed SJVAPCD construction emissions thresholds and would result in a less-than-significant impact.

The construction phase of the project was evaluated for the construction emissions using the California Emissions Estimator Model. The combined annual emissions report is attached as Exhibit C. Construction emission estimates were generated in lbs/day for the duration of the project. These included nitrogen oxides, carbon monoxide, sulfur dioxide, carbon dioxide, PM 10, and PM 2.5 and many others. The thresholds and calculated emissions are outlined below:

Ozone 1 hr Threshold (VOC's or NO_x)		= 25 tons/yr
Carbon Monoxide Threshold		= 100 tons/yr
SO_2 or NO_2 Threshold		= 100 tons/yr
PM_{10} Threshold		= 100 tons/yr
$PM_{2.5}$ Threshold		= 100 tons/yr
CO	Estimate = 0.66 tons/yr	< 100 tons/yr
NO_x	Estimate = 0.52 tons/yr	
SO_2	Estimate = <0.005 tons/yr	
	Total Estimate = 0.525 tons/yr	< 100 tons/yr
$PM_{10}E$	Estimate = 0.02 tons/yr	
$PM_{10}D$	Estimate = 0.01 tons/yr	
$PM_{10}T$	Estimate = 0.03 tons/yr	
	Total Estimate = 0.06 tons/yr	< 100 tons/yr
$PM_{2.5}E$	Estimate = 0.02 tons/yr	
$PM_{2.5}D$	Estimate = <0.005 tons/yr	
$PM_{2.5}T$	Estimate = 0.02 tons/yr	
	Total Estimate = 0.045 tons/yr	< 100 tons/yr
TOG	Estimate = 0.07 tons/yr	
ROG	Estimate = 0.06 tons/yr	
N_2O	Estimate = <0.005 tons/yr	
CH_4	Estimate = <0.005 tons/yr	
R	Estimate = 0.02 tons/yr	
CO_2T	Estimate = 112.0 tons/yr	
CO_2E	Estimate = 112.0 tons/yr	
BCO_2	Estimate = N/A tons/yr	
$NBCO_2$	Estimate = 112.0 tons/yr	

Footnotes:
1- Annual emission estimates based on an approximate 24-month construction period.
2- Project results in a significant impact if activities contribute to an exceedance of State or Federal ambient CO standards.
3- The District does not have a significance threshold for TOG.
4- Complying with APCD Regulations for controlling fugitive dust emissions during construction reduces potential impacts to less than significant.

Mitigation Measure(s)

AQ-1 Water will be applied to the project site during construction grading, trenching, and backfilling operations to control dust and keep the project area clean.

AQ-2 The contract documents will require the Contractor to obtain and comply with a San Joaquin Valley Air Pollution Control District Dust Control Plan and to permit the ozone treatment and destruct system.

Level of Significance

Impacts will be less than significant.

c. Sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly, or people who are more sensitive than the general population. The following locations are where several sensitive receptors are likely to reside and be affected by substantial pollutant concentrations: schools, hospitals, nursing homes, and daycare centers.

The project site property abuts Almondale Elementary School. Also, Ask Academy Family & Education Center In-Home Child Care is located within the residential neighborhood housing and is approximately 0.2 miles from the project site. Furthermore, Jens Family Daycare & Preschool is located within a residential neighborhood and is approximately 0.4 miles from the project site. There are no hospitals or other sensitive receptors to substantial pollutant concentrations with respect to air quality in the area.

The project will not involve emissions that would expose sensitive receptors to toxic air contaminants such as asbestos or lead. During construction, equipment will be kept from idling without being utilized and dust will be controlled. There are no emissions into the air as part of the facility operation as there will be no gas or diesel driven equipment as part of the project once construction is complete.

Mitigation Measure(s)

AQ-1 Water will be applied to the project site during construction grading, trenching, and backfilling operations to control dust and keep the project area clean.

AQ-2 The contract documents will require the Contractor to obtain and comply with a San Joaquin Valley Air Pollution Control District Dust Control Plan and to permit the ozone treatment and destruct system.

Level of Significance

Impacts will be less than significant.

d. The project will not create objectionable odors that would affect a substantial number of people. The project is a water well facility. During construction, dust from the area will be controlled by watering.

Mitigation Measure(s)

AQ-1 Water will be applied to the project site during construction grading, trenching, and backfilling operations to control dust and keep the project area clean.

AQ-2 The contract documents will require the Contractor to obtain and comply with a San Joaquin Valley Air Pollution Control District Dust Control Plan and to permit the ozone treatment and destruct system.

Level of Significance

Impacts will be less than significant.

iv. BIOLOGICAL RESOURCES:

Question	CEQA Determination
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 Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	Less Than Significant with Mitigation Incorporated
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 Wildlife or U.S. Fish and Wildlife Service?	No Impact
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?	No Impact
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?	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact
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?	No Impact

a. The project area is located within an existing residential development and open space land designation in the City of Bakersfield. The project will not adversely affect known species in local or regional plans, policies, regulations, or other. Pruett Biological Resource Consulting, Inc. performed a biological survey of the project area and their biological report is attached as Exhibit D. They found that the project will not have an impact on species. The biological report indicated no sensitive species nor were there signs observed during the field investigation. Per the report recommendations, preconstruction surveys will be performed prior to construction to ensure avoidance of Nesting Birds.

Mitigation measures were recommended as general measures to adopt the represent best management practices:

Mitigation Measure(s)

BIO-1 To protect nesting birds (covered by the MBTA) and all raptors, the following measures should be implemented:

- Pre-construction nesting bird surveys for the well area and within a 250-foot (76- meter) buffer around the perimeter should be conducted no more than one week prior to the commencement of ground disturbing activities, for project activities occurring between February 1 and August 31. If nesting birds are present, no new construction or new ground disturbance should occur within an appropriate avoidance area for the specific species until young have fledged, unless otherwise approved and monitored by a qualified onsite biologist. Avoidance zones should be implemented as follows: 1) ground or low shrub nesting non-raptors- 300 feet (91 meters); and 2) listed and fully protected raptors- 2,660 feet (811 meters); non-sensitive raptors- 500 feet (152 meters). Once young have fledged, avoidance zones can be removed.

- Activities on existing roads shall not be restricted as a result of implementation of this measure, unless those activities may result in direct impacts to nesting birds.

- All determinations regarding protection of nesting birds included in this measure should be made by a qualified biologist.

BIO-2 Traffic restraints and signs should be established to minimize temporary disturbances during construction. All construction traffic should be restricted to designated access roads and routes, project site, storage areas, and staging and parking areas. Off-road traffic outside designated project boundaries will be prohibited. A 15 mile-per-hour (32 kilometer-per-hour) speed limit should be observed in all project construction areas, except as otherwise posted on county roads and state and federal

highways.

BIO-3 All equipment storage and parking during construction activities should be confined to the designated construction area or to previously disturbed off site areas that are not habitat for listed species.

BIO-4 All project construction activities involving excavation or surface disturbance should be limited to daylight hours with the exception of well drilling activities.

BIO-5 Trenches should be inspected for entrapped wildlife each morning, prior to the onset of construction. Before such holes or trenches are filled, they should be thoroughly inspected for entrapped animals. Any animals so discovered shall be allowed to escape voluntarily, without harassment, before construction activities resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.

BIO-6 All construction pipes, poles, culverts, hoses or similar structures stored at the construction site for one or more overnight periods should be capped or the ends covered in a way that prevents wildlife entrapment. Unburied pipes laid in trenches overnight should be capped. If a kit fox or other listed species is discovered inside a pipe, that section of pipe will not be moved until the animal leaves on its own, or the USFWS and the CDFW have been consulted.

BIO-7 All food-related trash items such as wrappers, cans, bottles and food scraps generated by project activities shall be disposed of in closed containers and removed at least once each week from the site. Deliberate feeding of wildlife is prohibited.

BIO-8 To prevent harassment of special-status species, construction personnel should not be allowed to have firearms or pets on the project site.

BIO-9 All equipment and work-related materials shall be contained in closed containers either in the work area or on vehicles. Loose items (e.g., rags, hose, etc.) should be stored within closed containers or enclosed in vehicles when on the work site.

BIO-10 All liquids should be in closed, covered containers. Any spills of hazardous liquids should not be left unattended until cleanup has been completed.

BIO-11 Use of rodenticides and herbicides on the project site should be prohibited unless approved by the USFWS and the CDFW. This is necessary to prevent primary or secondary poisoning of special-status species using adjacent habitats, and to avoid the depletion of prey upon which they depend. Label restrictions and other restrictions imposed by the U.S. Environmental Protection Agency (EPA), the California Department of Food and Agricultural (CDFA), and other state and federal legislation shall be implemented. If rodent control must be conducted, zinc phosphide shall be used because of its proven lower risk to kit foxes.

BIO-12 Any employee who inadvertently kills or injures a listed species, or who finds any such animal dead, injured, or entrapped, shall be required to report the incident immediately to a designated site representative (e.g., foreman, project manager, environmental inspector, etc.), except animals killed on state and county roads when such mortality is not associated with project traffic. In the case of entrapped animals that are listed species, escape ramps or structures shall be installed immediately, if possible, to allow the subject animal(s) to escape unimpeded.

BIO-13 In the case of injured special-status wildlife, the CDFW shall be notified immediately. During business hours, Monday through Friday, the phone number is (559) 243-4017. For non-business hours, report to (800) 952-5400. Notification shall include the date, time, location, and circumstances of the incident. Instructions provided by the CDFW for the care of the injured animal shall be followed by the contractor onsite.

BIO-14 In the case of dead animal(s) that are listed as threatened or endangered, the USFWS and the CDFW shall be immediately (within 24 hours) notified by phone or in

person and shall document the initial notification in writing within two working days of the findings of any such animal(s). Notification shall include the date, time, location and circumstances of the incident.

BIO-15 Prior to commencement of construction on any phase of work, work areas should be clearly marked with fencing, stakes with rope or cord, or other means of delineating the work area boundaries.

BIO-16 All personnel entering the project site should attend a worker orientation program. The worker orientation program will present measures required to avoid, minimize, and mitigate impacts to biological resources and will include, at a minimum, the following: federal and state endangered species acts; biological survey results for the current construction area; life history information for the species of concern; biological resource avoidance, minimization, and mitigation requirements; consequences for failure to successfully implement requirements; and procedures to be followed if dead or injured wildlife are located during project activities. Upon completion of the orientation, employees should sign a form stating that they attended the program and understand all biological resource mitigation measures and receive a hard hat sticker or other means of identifying that they have attended the worker orientation. Forms verifying worker attendance should be filed at the applicant's office and be accessible to county, USFWS and CDFW staff. No untrained personnel will be allowed to work onsite with the exception of delivery trucks that are only onsite for one day or less, and are under the supervision of a trained employee.

Level of Significance

Impacts will be less than significant.

b. The project does not plan disturbance to any regulated, sensitive habitat types such as wetlands or riparian. The project is not located within a river or an area that encompasses a river or potential floodplain and does not contain nor is near any riparian habitat.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

c. There are no federally protected wetlands or coastal areas in the vicinity of the project. The project site does not contain any water features that would meet the criteria for either federal jurisdiction or State regulatory authority. The biological survey did not identify any other non-wetland features within the biological survey area that would meet the criteria for either federal or State jurisdiction.

A search was also conducted online using the US Fish and Wildlife Service Wetlands Mapper and a map of the project area has been attached hereto as Exhibit I. No current wetlands are located within the project areas.

Figure 3: Wetlands Map (See Exhibit I for Full Size Version)

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

d. The project area is located within an existing urban residential development in the City of Bakersfield. The project will not interfere with migratory corridors or habitat linkages between species' populations.

The project will not substantially affect migrating birds or other wildlife. The project will not restrict, eliminate, or significantly alter a wildlife movement corridor, wildlife core area, or Essential Habitat Connectivity area, either during construction or after the project has been constructed. Project construction will not substantially interfere with wildlife movements or reduce breeding opportunities.

The proposed project will not interfere with the movement of any native resident or migratory fish or wildlife species or with an established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. Therefore, there would be no impacts to wildlife movements, would not affect movement corridors, or impede a nursery site.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

e. The project will not conflict with any local policies or ordinances protecting biological resources. There are no adopted local policies or ordinances protecting biological resources that would apply to the project.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

f. The proposed project area is located within the City of Bakersfield service area and is Zoned OS (open space). Under Permitted Uses (Ch. 19.44.020(C)) water systems are permitted. As proposed, the project will not conflict with any existing habitat conservation plans.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

v. CULTURAL RESOURCES:

Question	CEQA Determination
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	Less Than Significant with Mitigation Incorporated
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Less Than Significant with Mitigation Incorporated
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Less Than Significant with Mitigation Incorporated

a. The proposed project is located within an Open Space land designation within a residential subdivision. It will not cause a substantial change in the significance of a historical resource. A cultural resource assessment was performed by BCRConsulting. See the assessment report attached as Exhibit E. The assessment confirmed that there are no recorded cultural resources within the proposed project areas or within a one-half mile radius of the project areas. A native American cultural resource records search was performed by the Native American Heritage Commission on January 19, 2023, see the NAHC Records Search attached as Exhibit F. The records search confirmed that there are no recorded Native American cultural resources within the proposed project areas or within a one-half mile radius of the project area.

Although the project is within an existing disturbed site, unknown historical resources may be discovered during ground-disturbing activities. In order to account for unanticipated discoveries and the potential to impact previously undocumented or unknown resources, the following mitigation measures are recommended.

Mitigation Measure(s)

CUL-1 An unexpected discovery of cultural resources during any phase of the project shall result in an immediate work stoppage in the vicinity of the find until the resources can be evaluated by a professional archaeologist. If the resource is deemed to be an "important" cultural resource, impacts will be mitigated by avoidance, where feasible.

CUL-2 Contractor shall provide a Cultural Resource Sensitivity Training Course to all personnel prior to any ground-disturbing activities associated with this project.

Level of Significance

Impacts will be less than significant.

b. The project area is located within an urban residential neighborhood and a community park in the City of Bakersfield. According to the National and California Registers of Historic Resources, there are no historic or pre-historic resources in the vicinity of the project and the project will therefore not have any substantial adverse change to any archaeological resources.

Although unlikely, there is a chance that trenching and grading activities could unearth previously unknown archaeological resources. Therefore, the following mitigation measures are recommended.

Mitigation Measure(s)

CUL-1 An unexpected discovery of cultural resources during any phase of the project shall result in an immediate work stoppage in the vicinity of the find until the resources can be evaluated by a professional archaeologist. If the resource is deemed to be an "important" cultural resource, impacts will be mitigated by avoidance, where feasible.

CUL-2 Contractor shall provide a Cultural Resource Sensitivity Training Course to all personnel prior to any ground-disturbing activities associated with this project.

Level of Significance

Impacts will be less than significant.

c. No known burials are located within the project areas. It will not disturb any human remains. Although unlikely, subsurface construction activities, such as trenching and grading, associated with the proposed project could potentially disturb previously undiscovered human burial sites. Therefore, the following mitigation measures are recommended.

Mitigation Measure(s)

CUL-1 An unexpected discovery of cultural resources during any phase of the project shall result in an immediate work stoppage in the vicinity of the find until the resources can be evaluated by a professional archaeologist. If the resource is deemed to be an

"important" cultural resource, impacts will be mitigated by avoidance, where feasible.

CUL-2 Contractor shall provide a Cultural Resource Sensitivity Training Course to all personnel prior to any ground-disturbing activities associated with this project.

Level of Significance

Impacts will be less than significant.

vi. ENERGY:

Question	CEQA Determination
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact

a. Energy demand during the construction phase will result from the transportation of materials, construction equipment, and construction worker vehicle trips. Construction equipment can include tractors, loaded trucks, forklifts, excavators, backhoes, generators, cranes, compactors, and air compressors. The project will comply with the SJVAPCD requirements regarding the use of fuel-efficient vehicles and equipment to the extent feasible. The project will not use natural gas during the construction phase. Compliance with standard regional and local regulations will minimize fuel consumption during project construction.

The project treatment building and pump enclosure building will comply with current applicable building code requirements, development standards, and energy efficiency requirements. Equipment used at the facility will be designed to be energy efficient and will not result in unnecessary energy use.

The project will not result in significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy during project construction or operation. During construction, idling times will be limited to 5 minutes or less to reduce wasted energy.

During operation, the well site motors will utilize variable speed drives to improve efficiency. The site is equipped with a tank which will allow the well to start less often and be more efficient. The electrical building will be insulated with R-19 insulation, insulated doors, and an insulated roll up door.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

b. The project does not conflict with or obstruct state or local renewable energy or energy efficiency plans. The site is in compliance with California Building Energy Efficiency Standards.

   Strategies being implemented to be energy efficient include diesel anti-idling measures, light-duty vehicle technology, usage of alternative fuels such as biodiesel blends, and heavy-duty vehicle design measures to reduce energy consumption.

   Mitigation Measure(s)

   No mitigation required.

   Level of Significance

   There will be no impact.

vii. GEOLOGY AND SOILS:

Question	CEQA Determination
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.	No Impact
ii) Strong seismic ground shaking?	Less Than Significant Impact
iii) Seismic-related ground failure, including liquefaction?	No Impact
iv) Landslides?	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	No Impact
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?	No Impact
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?	No Impact
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?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

a. The proposed project involves drilling and equipping a new municipal water well facility and connecting it to the existing VWC distribution system. The project will not adversely affect the people in the area.

i) The risks of injury in the event of an earthquake for this project are less than significant. The project site is not located in an Alquist-Priolo Earthquake Fault Zone, as defined by Special Publication 42 (revised 2007) published by the California Geologic Survey (CGS). A record search was made on the Department of Conservations CGS EQ

Zapp interactive web map. The project site is not located within a fault zone.

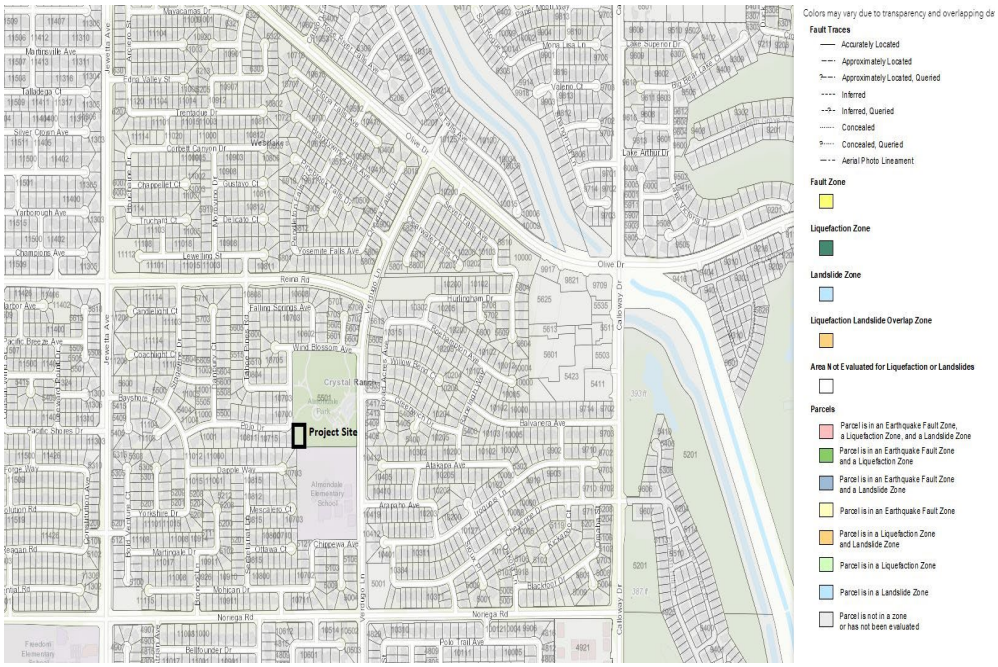


Figure 4: Fault Zone Map

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

ii) The project is in a seismically active region, however it is not at risk for high-magnitude earthquake destruction. The project area is in the middle of the San Joaquin Valley which experiences moderate to severe ground shaking. The project areas could potentially experience strong seismic ground shaking during the lifespan of the project; however, the risk of loss, injury, or death as a result of ground shaking is less than significant as the project primarily involves the installation of underground piping and a water well.

Water well construction is under the authority of the California Department of Water Resources. The wells will be constructed in accordance with the standards as outlined in Chapter II Section 2, including well location siting to limit contamination and pollution from off-site sources, the use of appropriate well casing, the placement and components of seals, the sizing of the well hole and the types of casing materials to use based on soil types, etc. The project will

adhere to the applicable standards as outlined by the State during the construction of the well.

Kern County has also adopted a well ordinance that is under the jurisdiction of the County Public Health Department. The project will adhere to the applicable Kern County regulations.

The only above ground buildings that will be built will be a well enclosure building and a metal treatment building. These above ground structures are designed to withstand seismic ground shaking in accordance with CBC 2022. A water storage tank and granulated activated carbon treatment tanks will be located within the site as well. They are also designed to withstand seismic ground shaking in accordance with CBC 2022. Based on the above noted information the risks of injury in the event of strong seismic ground shaking is less than significant.

Mitigation Measure(s)

No mitigation required.

Level of Significance

Impacts will be less than significant.

iii) The depth to groundwater in this area is greater than 300-ft below ground surface. Since the depth to groundwater at the project site is much greater than 50-feet, there is a negligible risk of liquefaction occurring at the site during a seismic event. The risks of injury in the event of seismic related ground failure, including liquefaction is less than significant.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

iv) The project areas are flat lying areas and landslides are not considered a concern. There is no potential for rock falls or landslides to impact the project in the event of a major earthquake, as the area has no dramatic elevation changes.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

b. The project area is primarily located within an existing residential area and open space (park) and is relatively flat. Construction activities for the project may disturb minimal amounts of soil during construction and would expose these disturbed areas to erosion by wind and water. However, since the project is anticipated to disturb less than one acre of land, the project site is not subject to the National Pollutant Discharge Elimination System (NPDES) Program requirements. As such, it will not have to develop a Stormwater Pollution Prevention Plan (SWPPP). However, the project will be required to contain all stormwater runoff on-site and will implement various types of Best Management Practices (BMP's) to prevent erosion and sedimentation from occurring during construction.

Typical BMP's intend to control erosion and include sandbags, silt fencing, street sweeping, etc. The project is not expected to result in substantial soil erosion or the loss of topsoil with the implementation of the BMP's. Overall, the project will not result in conditions where substantial surface soils would be exposed to wind and water erosion.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

c. The geologic conditions are stable. The project will not result in unstable geologic conditions or other unsatisfactory soil collapse. Based on the existing grade of the surrounding topography, landslides will not be an issue, and neither will lateral spreading, subsidence, liquefaction or collapse. Attached is a copy of a Soil Survey Map provided by the National

Cooperative Soil Survey in Exhibit G. The soil classification is a Kimberlina Fine Sandy Loam with 0 to 2% slopes.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

d. Soils in the area are not expansive based on the material being a Kimberlina Fine Sandy Loam absent of clays. Any unsuitable soil encountered during site grading will be replaced with suitable engineered fill.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

e. Septic tanks and seepage pits will not be a part of this project. The project will not include any requirements for the disposal of waste on-site.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

f. Paleontological resources or unique geologic features will not be directly or indirectly destroyed as a result of this project.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

viii. GREENHOUSE GAS EMISSIONS:

Question	CEQA Determination
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No Impact

a. Construction of the proposed project may result in temporary emissions of greenhouse gases, however the project as a whole is not expected to generate greenhouse gas emissions, either directly or indirectly, that would have a significant impact on the environment. The project greenhouse gas emissions will be primarily from mobile source activities during construction. Long-term operation of the new well facility will not result in significant generation of greenhouse gas emissions.

   An ozone destruct unit will be installed to convert any residual ozone gas to oxygen prior to its release to the atmosphere. The project will not violate any air quality standards nor will it contribute to an existing air quality violation during and after construction of the project.

   Mitigation Measure(s)

   No mitigation required.

   Level of Significance

   There will be no impact.

b. The project will not involve any conflicts or issues with the applicable air quality plans.

   Mitigation Measure(s)

   No mitigation required.

   Level of Significance

   There will be no impact.

ix. HAZARDS AND HAZARDOUS MATERIALS:

Question	CEQA Determination
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	No Impact
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?	Less Than Significant
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less Than Significant
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?	No Impact
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?	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No Impact

a. Construction will involve small amounts of hazardous and non-hazardous materials such as diesel fuel, hydraulic oil, grease, solvents, adhesives, paints, and other petroleum-based products. These materials are commonly used during construction activities and will be removed and disposed of at an appropriate landfill or recycling facility. Workers are trained to properly identify and handle all hazardous materials and to follow OSHA/CAL-OSHA regulations. Hazardous wastes will be either recycled or disposed of at a permitted and licensed treatment and/or disposal facility. While being used during construction, these materials will be stored in an appropriate storage location and containers in the manner specified by the manufacturer and disposed of in accordance with local, federal, and State regulations. Therefore, there will be no impact.

Operation of the facility will require the transport and use of chlorine for disinfection of the drinking water. Chlorine, in the form of 12.5% Sodium Hypochlorite, will be delivered on a bi-weekly or monthly basis depending on usage. A delivery will typically be less than 300 gallons. The chlorine will be contained on-site in a 300 gallon double-walled polyethylene chemical tank. Secondary containment will be provided as well for the tank and the chemical feed pump to ensure that no leaks or spills reach the ground surface. Therefore, there is no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

b. Sodium hypochlorite will be stored on site at the new municipal well site; however, the chlorine will be stored in small quantities (less than 300 gallons) in an appropriate double-walled chemical storage tank to prevent the accidental release of hazardous materials into the environment.

   In addition, ozone will be injected into the flow stream as a strong oxidant to convert sulfide in the water to sulfate. An ozone analyzer will be installed inside the building and at the ozone destruct unit to detect any ozone leaks. In the event of the presence of ozone, the analyzer will send an alarm and shutdown the well and ozone operation.

   Mitigation Measure(s)

   No mitigation required.

   Level of Significance

   Impacts will be less than significant.

c. The project will not emit any hazardous emissions or involve the handling of hazardous waste. The project will involve 12.5% Sodium Hypochlorite and Ozone Gas. Sodium hypochlorite will be stored on site at the new municipal well site. The chlorine will have less than significant impact as it will be stored in an appropriate double-walled chemical storage tank to prevent the accidental release of hazardous materials into the environment. It will not be handled by Vaughn Water Company personnel, but rather delivered by delivery truck and the tank filled through a hose.

The second substance is ozone gas. It will be injected into the flow stream as a strong oxidant to convert sulfide to sulfate. To mitigate the hazard, an ozone analyzer will be installed inside the building to detect any ozone leaks and in that event the analyzer will send an alarm and shutdown the well and ozone operation. Therefore, the impact is less than significant. The site is located within one-quarter mile of an existing school and a daycare, see Exhibit J attached hereto.

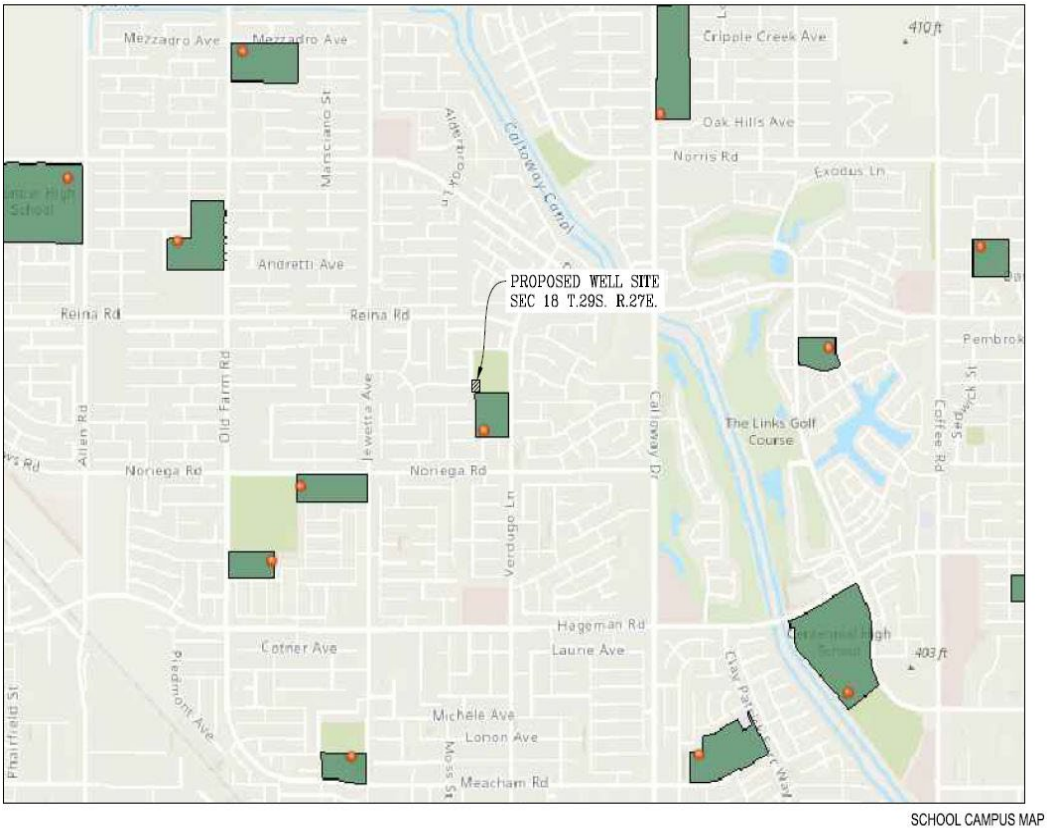


Figure 5: School Map (See Exhibit K for Full Size Version)

Mitigation Measure(s)

No mitigation required.

Level of Significance

Impacts will be less than significant.

d. The project site is located within and adjacent to existing residential development, a school, and a public park. It is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and as verified from the current list of hazardous materials sites pulled from the California Dept. of Toxic Substances Control attached hereto for reference as Exhibit L.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

e. There is not a public airport or planned airport land use plan in the project area.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

f. This project will not impair or interfere with an adopted emergency response plan or emergency evacuation plan. The project will comply with all local and State regulations regarding emergency response plans and access. The project will not inhibit the ability of local roadways to continue to accommodate emergency response and evacuation activities. Therefore, there is no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

g. The project will not expose people or structures to wildland fires. The well facility will be covered in gravel rock ground cover upon completion. Therefore, there is no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

x. HYDROLOGY AND WATER QUALITY:

Question	CEQA Determination
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	Less Than Significant Impact
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 off-site;	No Impact
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	No Impact
(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	No Impact
(iv) impede or redirect flood flows?	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

a. The proposed project involves drilling and equipping a new municipal water well facility and connecting it to the existing VWC distribution system. The project will not violate any water quality standards nor will it involve waste discharge. The well will be designed such that the water produced meets all Title 22 drinking water standards. There is no surface water in the vicinity of the project.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

b. The project includes the construction and equipping of a new municipal well. The new municipal well will not substantially deplete groundwater supplies or lower the local groundwater table level. Historically, Vaughn Water Company water wells have maintained a consistent pumping water level due to the depth of the company wells. The new well will be completed at a depth that is deeper than most wells in the area which will limit the impacts on shallower wells in the area. However, in general, groundwater level depletion can be attributed to the current drought and over-pumping of the groundwater by local farmers. Vaughn Water Company lies within the Rosedale/Rio Bravo Water Storage District (RRBWSD) and Kern County Water Agency's (KCWA) Improvement District No. 4 boundaries and the shareholders (rate payers) in Vaughn Water Company pay a pump tax to RRBWSD and KCWA. That pump tax provides revenue for RRBWSD to recharge and bank groundwater in an effort to maintain a groundwater balance. Both RRBWSD and KCWA have groundwater management programs that help to preserve the groundwater source by monitoring water quality and water levels.

Mitigation Measure(s)

HYD-1 Vaughn Water Company regularly monitors the groundwater levels in their wells in order to ensure the wells are not excessively lowering groundwater levels in the area. Well monitoring will continue in nearby wells during construction activity.

Level of Significance

Impacts will be less than significant.

c. The project area is within an existing residential development and a community park. The ground will be restored along the pipeline trench alignments to match existing conditions after installation of the pipeline. The existing drainage pattern of the project areas will not be altered. This project site is relatively flat and will not alter the existing drainage pattern or result in substantial erosion or siltation.

i) The project site is relatively small (1/2-acre) and flat and therefore will not result in substantial erosion or siltation on-site or off-site. With the implementation of BMP's, erosion or siltation is less than significant.

ii) The project site is relatively small (1/2-acre) and will be surfaced with a well-graded ¾-inch rock such that surface water will still

drain as it does currently at the park site. The project will not cause substantial surface runoff that will result in flooding on-site or off-site.

iii) The project will not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-site or off-site, contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems, nor provide additional sources of polluted runoff. Therefore, the project will have no impact.

iv)The project is not located near a stream or river and is not located in a wetland area or the floodplain.

A flood insurance rate map (FIRM) for the project area is attached hereto as Exhibits H.

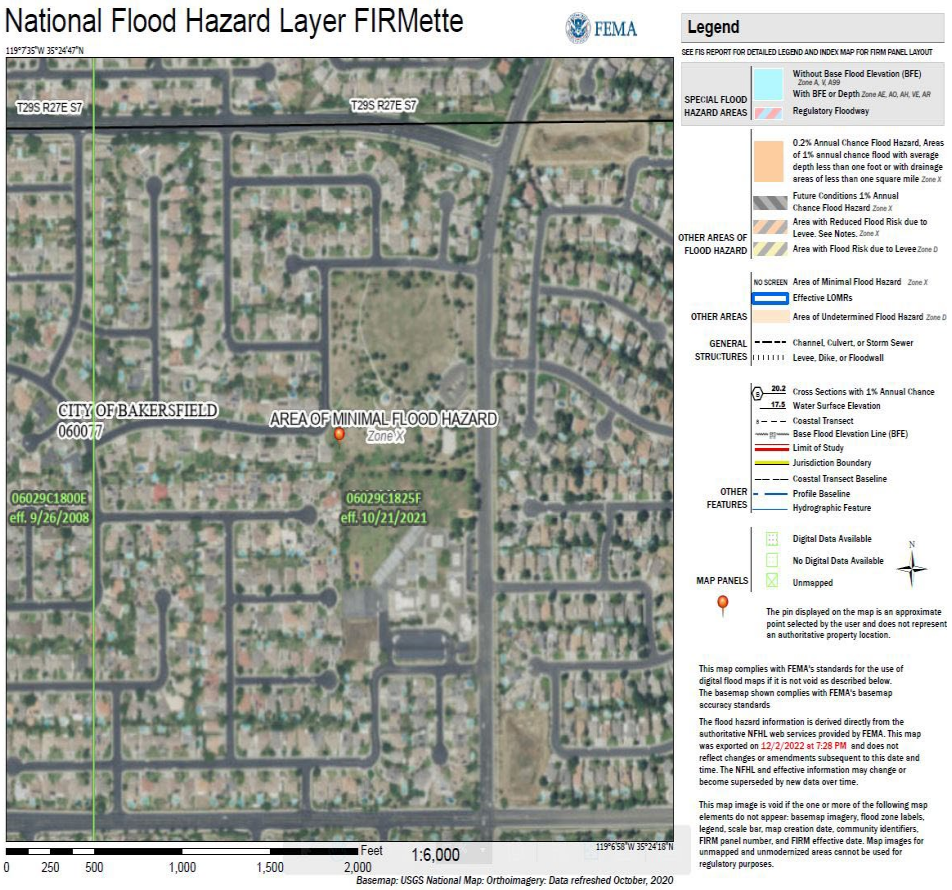


Figure 6: Flood Zone Map (See Exhibit H for Full Size Version)

The project will not impede or redirect flood flows. In addition, the water well concrete foundation will be constructed a minimum

of 2-ft above natural ground surface to protect the groundwater quality from the influence of flood or surface waters, therefore the project will have no impact.

Mitigation Measure(s)

No Mitigation required.

Level of Significance

There will be no impact.

d. The project will not create nor contribute to a seiche, tsunami, or mudflow.

The project is not located near the ocean or a steep topographic feature. Tsunamis and seiche's precipitate out of large water bodies that are not present near the project site. The Kern County Multi-Jurisdictional Hazard Mitigation Plan identifies dams and levees throughout Kern County and their potential hazard classification. The project site is located outside of the inundation exposure zone. Therefore, the project will have no impact.

Mitigation Measure(s)

No Mitigation required.

Level of Significance

There will be no impact.

e. The project will not conflict with or obstruct implementation of a quality control plan or sustainable groundwater management plan. The project will comply with all applicable local and State standards during construction and operation. This project is not anticipated to use or substantially deplete groundwater supplies or conflict with any future adopted groundwater management plan. Therefore, the project will have no impact.

Mitigation Measure(s)

No Mitigation required.

Level of Significance

There will be no impact.

xi. LAND USE AND PLANNING:

Question	CEQA Determination
a) Physically divide an established community?	No Impact
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?	No Impact

a. The project site will be constructed on existing property owned by Vaughn Water Company and will not divide an established community. The well facility is planned to be installed on APN 526-010-14 located in the southwest corner of the existing Almondale Park.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

b. The well project is being constructed on property that was purchased by Vaughn Water Company for this purpose. It will not conflict with any applicable land use plan, policy, or regulation. The project is within Kern County Zoning OS (open space), which under permitted uses (Ch. 19.44.020(C)), allows for water systems small or large.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

xii. MINERAL RESOURCES:

Question	CEQA Determination
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?	No Impact
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?	No Impact

a. The California Geologic Energy Management Division (CalGEM) prioritizes protecting public health, safety, and the environment in its oversight of the oil, natural gas, and geothermal industries. The project is not located in an identified CalGEM oilfield and there are no known wells located on the site. It will not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. Therefore, the project will have no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

b. The project is not designated as a mineral recovery area and will not alter any existing plans that protect mineral resources. The project will not result in the loss or availability of a locally important mineral resource recovery site and is considered to have no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

xiii. NOISE:

Question	CEQA Determination
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?	Less Than Significant with Mitigation Incorporated
b) Generation of excessive groundborne vibration or groundborne noise levels?	Less Than Significant with Mitigation Incorporated
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?	No Impact

a. The City of Bakersfield General Plan establishes acceptable levels for noise and land use compatibility. The land use in the project site area is residential, a school, and a neighborhood park. The acceptable community noise exposure is as follows:

	Normally Acceptable	Conditionally Acceptable
Residential	50 – 60 Ldn or CNEL	60 – 70 Ldn or CNEL
School	50 – 60 Ldn or CNEL	60 – 65 Ldn or CNEL
Park	50 – 67.5 Ldn or CNEL	NA

CNEL Community Noise Equivalent Level
Ldn Day/Night Average Sound Level

The nearest receptors are residences whose property is adjacent to the well site project site. The equipment to be utilized for the project is standard for conventional construction. However, the exception to this statement is the well drilling equipment and the well drilling hours.

During well drilling operations, sound barrier walls (insulated walls) will be installed that are 16-feet tall on the west, south, and east sides of the site to mitigate any construction noise. These walls will be temporary in nature but will remain in place during well drilling and well development to shield noise and light from the well drilling equipment.

Noise levels during pipeline and well equipping construction of the project will be mitigated by limiting construction hours to daylight hours and weekdays only.

For the operation of the facility, noise will be generated from pumps and motors and ozone treatment equipment. The well will be equipped with an insulated motor enclosure to mitigate motor noise and the ozone treatment equipment will be located within an insulated and conditioned metal building. In addition, an 8-ft tall masonry block wall will be installed around the well site to further help mitigate any operational noise. Noise impacts are considered to be less than significant.

Mitigation Measure(s)

NOI-1 Noise levels will be increased on a temporary basis during construction activities. Installation of sound barrier walls will be installed around the south, west, and east sides of the well site during well drilling activities to reduce noise and light to nearby residents.

NOI-2 The temporary noise impacts attributed to construction will be mitigated for all construction, with the exception of the well drilling activities, by limiting the hours of construction on-site to weekdays, Monday thru Friday, from 7 am to 5 pm.

NOI-3 The well will be equipped with an insulated motor enclosure to mitigate motor noise and the electrical and ozone treatment equipment will be located within an insulated metal building. The booster pumps are equipped with variable speed drives to help run at optimum efficiency and shorter, quieter run times. The well site will be secured with an 8-ft masonry wall, which is 2-ft taller than normal, to help reduce the overall noise impact.

Level of Significance

Impacts will be less than significant with mitigation incorporated.

b. Construction activities, in general, can have the potential to create ground-borne vibrations and the project may generate these ground-borne vibration or noise levels. Construction activities most likely to cause vibration include heavy construction equipment and drilling. The nearest receptors are residences whose property is adjacent to the well site. Noise levels and vibrations will be increased temporarily during construction but will be mitigated as described above by limiting pipeline and well equipping work to daylight hours and weekdays only and installing sound barrier walls for well drilling activities. Therefore, vibration impacts associated with construction are anticipated to be less than significant.

Mitigation Measure(s)

NOI-1 Noise levels will be increased on a temporary basis during construction activities. Installation of sound barrier walls will be installed around the south, west, and east sides of the well site during well drilling activities to reduce noise and light to nearby residents.

NOI-2 The temporary noise impacts attributed to construction will be mitigated for all construction, with the exception of the well drilling activities, by limiting the hours of construction on-site to weekdays, Monday thru Friday, from 7 am to 5 pm.

NOI-3 The well will be equipped with an insulated motor enclosure to mitigate motor noise and the electrical and ozone treatment equipment will be located within an insulated metal building. The booster pumps are equipped with variable speed drives to help run at optimum efficiency and shorter, quieter run times. The well site will be secured with an 8-ft masonry wall, which is 2-ft taller than normal, to help reduce the overall noise impact.

Level of Significance

Impacts will be less than significant with mitigation incorporated.

c. The project site is not located within 2 miles of an airport. The project site location will not expose construction workers or operators to excessive noise.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

xiv. POPULATION AND HOUSING:

Question	CEQA Determination
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)?	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact

a. The project involves the drilling and equipping of a new municipal water well facility and connecting it to the existing VWC distribution system. The system improvements are necessary to provide municipal water supply to residences in the northwest part of Bakersfield. This project will have an indirect impact on growth in the area in that it provides a water supply. However, the water well facility is needed as a result of new growth and these residential developments are required to prepare the necessary environmental documents for their projects and to obtain permitting from the City or County, as applicable.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

b. This project will not displace any existing housing or residences. Therefore, the project will have no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

xv. **PUBLIC SERVICES**:

Question	CEQA Determination
a) Fire protection?	No Impact
b) Police protection?	No Impact
c) Schools?	No Impact
d) Parks?	No Impact
e) Other public facilities?	No Impact

a. Fire protection for the project is provided by the Kern County Fire Department and the City of Bakersfield Fire Department. The project will not result in substantial adverse physical impacts to or create the need for fire protection. The new well will aid Vaughn Water Company in ensuring that the community has adequate pressure and fire flow protection, therefore there is no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

b. The Kern County Sheriff's Department and the City of Bakersfield Police Department provide law enforcement services to this area. As a water well site, the project will not result in substantial adverse physical impacts to or create the need for additional police protection.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

c. The project is located within the Rosedale Union Elementary School District and the Kern High School District. The project is a water well site and will not result in substantial adverse physical impacts to or create the need for schools.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

d. The project is a water well site and will not result in substantial adverse physical impacts to or create the need for parks.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

e. The project is a water well site and will not result in substantial adverse physical impacts to or create the need for any other public facilities.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

xvi. RECREATION:

Question	CEQA Determination
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?	No Impact
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?	No Impact

a. The project will not increase the use of existing neighborhood and regional parks or other recreational facilities. There will be no physical deterioration of the facilities and the project will not require the construction or expansion of recreational facilities therefore, there is no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

b. The project is adjacent to the Almondale Park and has a private easement through the southern portion of the park. However, the project does not include or require the construction or expansion of recreational facilities and therefore has no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

xvii. TRANSPORTATION:

Question	CEQA Determination
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Less Than Significant with Mitigation Incorporated
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No Impact
d) Result in inadequate emergency access?	No Impact

a. The project will not conflict with any programs, plans, ordinances, or policies including transit, roadway, bicycle and pedestrian facilities. Construction related traffic is anticipated to be short-term and will not significantly impact existing or planned circulation infrastructure. Construction signage will be provided to alert the public to the construction activity. All construction activities in the roadway and sidewalk will be returned to original conditions after construction. A drive approach into the well site will be added, however an encroachment permit will be obtained for any work performed in the road right-of-way.

The proposed operation of the project does not require on-site employees and will have minimal impact on the City's circulation system.

Mitigation Measure(s)

TRA-1 During construction there will be an increase in traffic as a result of material deliveries and construction crews, however construction signage will be provided to alert people around the construction activity, as needed.

TRA-2 All necessary encroachment permits for any proposed work within the County road right-of-way will be obtained.

Level of Significance

Impacts will be less than significant with mitigation incorporated.

b. The project will not conflict with CEQA Guidelines section 15064.3, subdivision (b). The project will not exceed a level of service standard established by the county congestion management agency for designated roads or highways. Vehicles traveling to and from the site during construction will temporarily increase traffic in the area. Once construction is complete, traffic to and from the site will be minimal and not impact congestion. The combined annual emissions report is attached as Exhibit C. In the report, estimates for traffic to and from the site during construction and operation are considered.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

c. The project does not include road design and construction and therefore has no impact. The project will not increase hazards due to sharp turns, curves, dangerous intersections, or incompatible uses. Construction signage will be provided to alert the public to the construction activity.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

d. The project will be required to comply with all emergency access requirements adopted and set forth in the City of Bakersfield Municipal Code. The proposed project will not require closure of public roads or inhibit access by emergency vehicles. The project will not result in inadequate emergency access and therefore has no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

xviii. TRIBAL CULTURAL RESOURCES:

Question	CEQA Determination
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), or	Less Than Significant with Mitigation Incorporated
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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Less Than Significant with Mitigation Incorporated

a. The project is located within an existing residential neighborhood in the City of Bakersfield and County of Kern. A cultural resource records search was performed by the California Historical Resources Information System, see CHRIS Records Search attached as Exhibit E. The records search confirmed that there are no recorded cultural resources within the proposed project area or within a one-half mile radius of the project area.

   Upon any ground breaking activity, there is the possibility of uncovering an object of cultural value. Mitigation measures CUL-1 and CUL-2 must be implemented if any artifacts or human remains are discovered. Therefore, the project will have a less than significant impact with mitigations incorporated.

   Mitigation Measure(s)

   Implementation of Mitigation Measures CUL-1 and CUL-2.

   Level of Significance

   Impacts will be less than significant with mitigation incorporated.

b. A records search was completed by the Native American Heritage Commission, see Exhibit F. Furthermore, a Tribal Consultation list was requested and the tribes recommended have been contacted.

Mitigation Measure(s)

Implementation of Mitigation Measures CUL-1 and CUL-2.

Level of Significance

Impacts will be less than significant with mitigation incorporated.

xix. UTILITIES AND SERVICE SYSTEMS:

Question	CEQA Determination
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 telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Less Than Significant
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 project's projected demand in addition to the provider's existing commitments?	No Impact
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?	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

a. This project is the construction of a new water facility. The project will not require or result in the relocation or construction of expanded or new wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities of which could cause significant environmental effects. The residential growth in the area is requiring the need for additional water supply; however, Vaughn Water Company does not regulate or oversee the residential growth. These developments are overseen by the County or the City as applicable and each development is responsible for their own environmental documents.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

b. The project is a water system project. It will supply water to Vaughn Water Company's water mains and supply water to the community.

Mitigation Measure(s)

No mitigation required.

Level of Significance

Impacts will be less than significant.

c. The project will not generate additional demand to the wastewater treatment provider. Therefore, there will be no increase in wastewater and the project will have no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

d. The project does not have any solid waste disposal needs. During temporary construction, unused construction materials, which are not anticipated to contain hazardous materials, will be collected and transported away for the site and disposed of at an approved landfill facility.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

e. The project does not involve the generation of solid waste.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

xx. WILDFIRE:

Question	CEQA Determination
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No Impact
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?	No Impact
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?	No Impact
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?	No Impact

a. The proposed project involves drilling and equipping a new municipal water well facility and connecting it to the existing Vaughn Water Company distribution system. The project is located in a Local Responsibility Area (LRA) and is greater than 5 miles from a moderate fire hazard severity zone according to the California Department of Forestry and Fire Protections FRAP FHSZ map. The project will not impair an adopted emergency response plan or emergency evacuation plan and therefore has no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

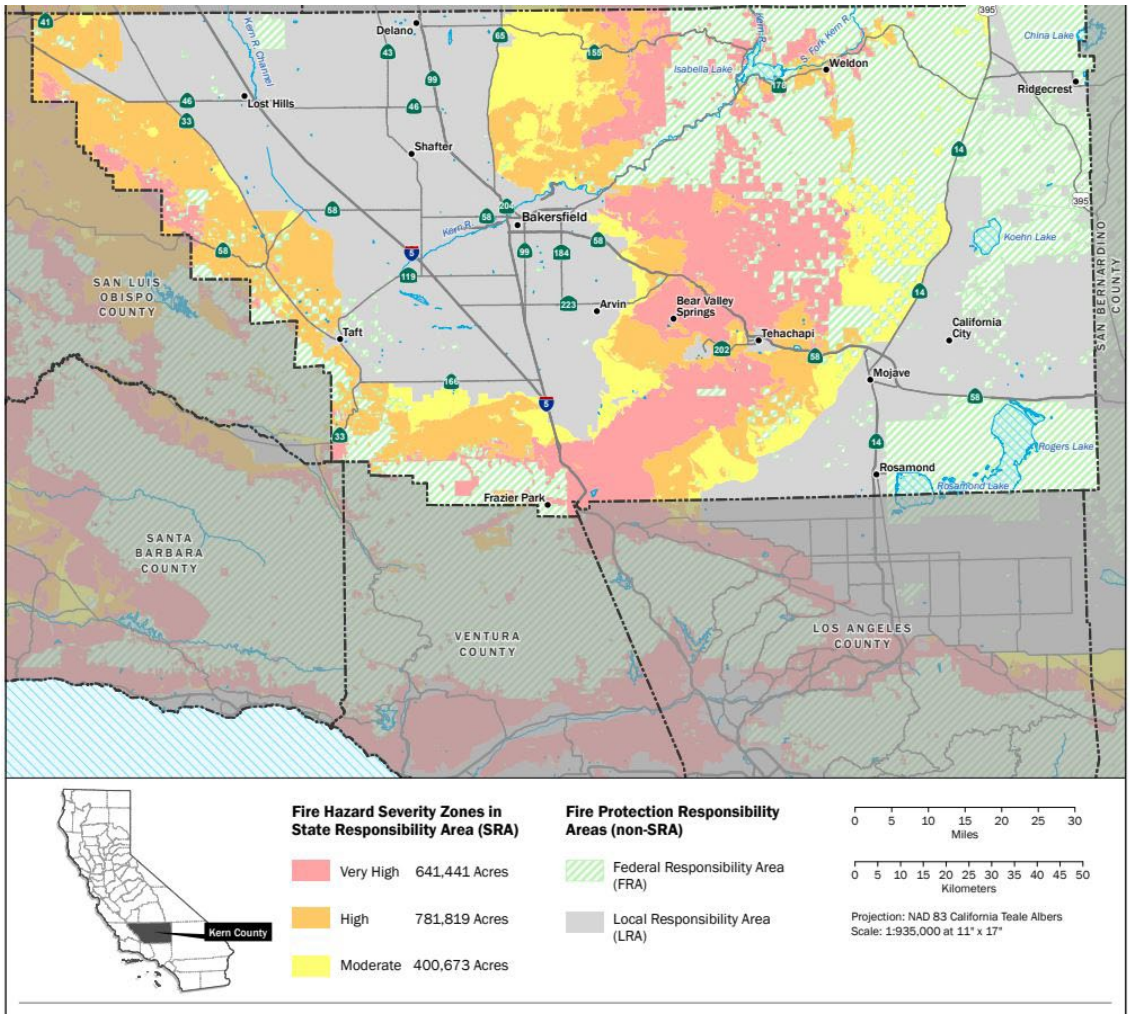


Figure 7: Fire Severity Zone Map

b. The project will be constructed and operated in an existing developed area. The project will not expose project occupants to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire and therefore has no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

c. The project will not require the installation or maintenance of associated infrastructure that may exacerbate fire risk and therefore has no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

d. The project is not located near State responsibility areas or lands classified as very high fire hazard severity zones. The project site is relatively flat. The project will not 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 and therefore has no impact.

Mitigation Measure(s)

No mitigation required.

Level of Significance

There will be no impact.

xxi. MANDATORY FINDINGS OF SIGNIFICANCE:

Question	CEQA Determination
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?	Less Than Significant with Mitigation Incorporated
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)?	Less Than Significant with Mitigation Incorporated
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less Than Significant with Mitigation Incorporated

a. As evaluated in this IS/MND, the project will not 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; reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory. With implementation of the mitigation measures recommended in this document, the proposed project would not have the potential to degrade the quality of the environment, significantly impact biological resources, or eliminate important examples of the major periods of California's history or prehistory. Therefore, with the following mitigation measures, the project will have a less than significant impact.

Mitigation Measure(s)

Implementation of Mitigation Measures AES-1 and AES-2; AQ-1 and AQ-2; BIO-1 through BIO-16; CUL-1 and CUL-2; HYD-1; NOI-1, NOI-2, NOI-3; and TRA-1 and TRA-2.

Level of Significance

The project will have a less than significant impact with the mitigations

incorporated.

b. Any potentially significant impacts of the project will be reduced to a less than significant level following the incorporation of the mitigation measures listed. The proposed project will not otherwise combine with impacts of related development to add considerably to any cumulative impacts that are individually limited, but cumulatively considerable. Therefore, the project will have a less than significant impact with the mitigations incorporated.

Mitigation Measure(s)

Implementation of Mitigation Measures AES-1 and AES-2; AQ-1 and AQ-2; BIO-1 through BIO-16; CUL-1 and CUL-2; HYD-1; NOI-1, NOI-2, NOI-3; and TRA-1 and TRA-2.

Level of Significance

The project will have a less than significant impact with the mitigations incorporated.

c. All of the project's impacts, both direct and indirect that are attributable to the project were identified and mitigated. The project mitigation measures will substantially reduce or eliminate the impacts of the project. Therefore, the project does not have environmental effects which will cause substantial adverse effects on human beings directly or indirectly because all potentially adverse direct impacts of the project are identified as having no impact, less than significant impact, or less than significant impact with mitigation.

Mitigation Measure(s)

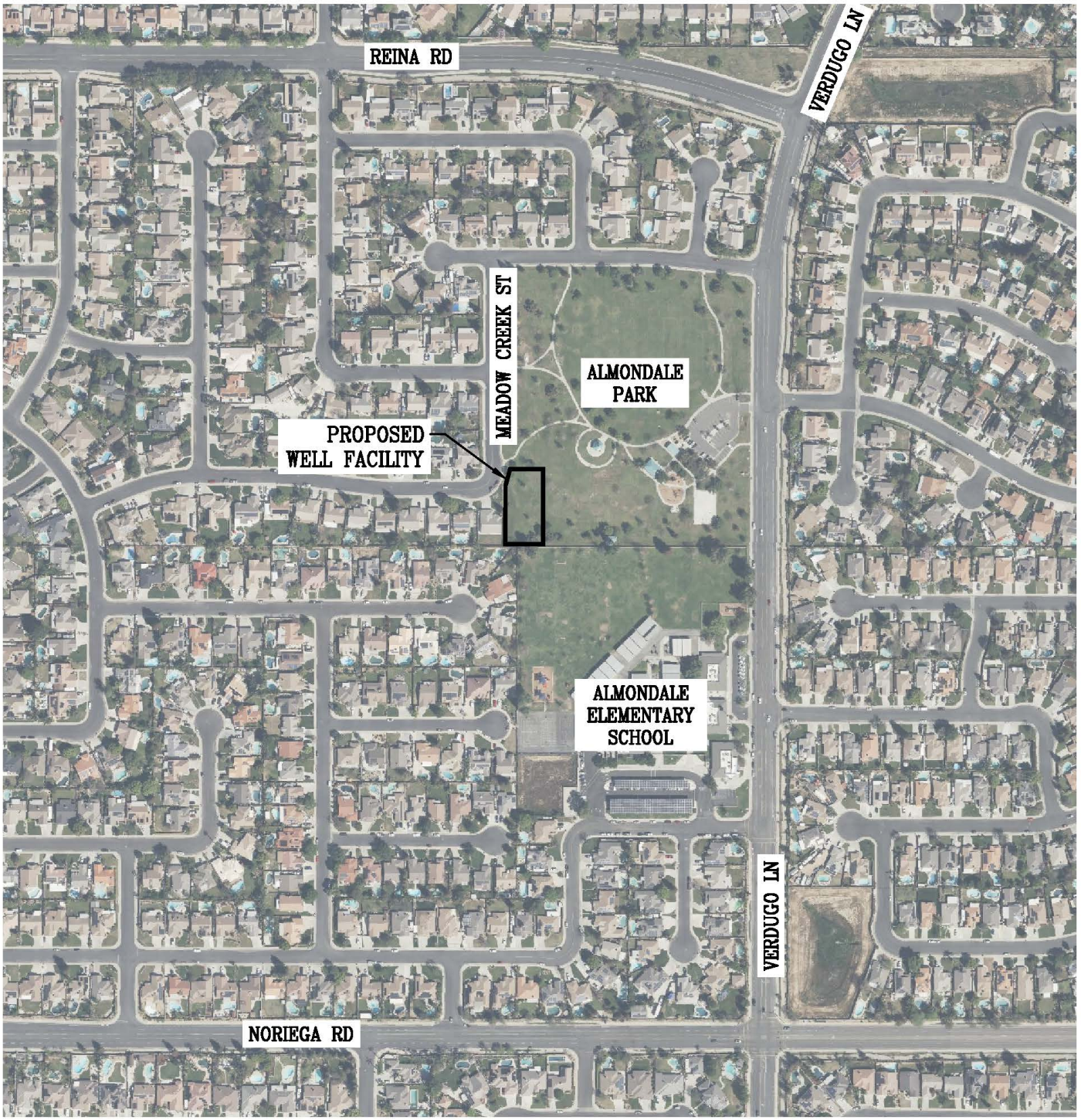
Implementation of Mitigation Measures AES-1 and AES-2; AQ-1 and AQ-2; BIO-1 through BIO-16; CUL-1 and CUL-2; HYD-1; NOI-1, NOI-2, NOI-3; and TRA-1 and TRA-2.

Level of Significance

The project will have a less than significant impact with the mitigations incorporated.

VAUGHN WATER COMPANY
MEADOW CREEK WELL
WATER SUPPLY AND TREATMENT FACILITY

EXHIBIT A
"PROJECT SITE PLAN"



0 200' 400'

SCALE: 1"=400'

AERIAL MAP

MEADOW CREEK WELL FACILITY

VAUGHN WATER COMPANY

DEE JASPAR & ASSOCIATES, INC.
CIVIL • ENGINEERS
2730 UNICORN ROAD, BLDG A
BAKERSFIELD, CALIFORNIA 93308
PHONE 661 393-4795
FAX 661 393-4799
639 N. MAIN STREET, #B
PORTERVILLE, CALIFORNIA 93257
PHONE 559 791-9286
FAX 559 783-9275

VAUGHN WATER COMPANY
MEADOW CREEK WELL
WATER SUPPLY AND TREATMENT FACILITY

EXHIBIT B
"PROJECT DESCRIPTION"

VAUGHN WATER COMPANY
MEADOW CREEK WELL WATER SUPPLY AND TREATMENT FACILITY

PROJECT LOCATION AND DESCRIPTION:

The proposed project is for Vaughn Water Company and involves drilling and equipping a new municipal water well, constructing an Ozone Treatment facility, and connecting it to the existing VWC distribution system.

The well is located to the west of the City of Bakersfield on the southwest side of Almondale Park approximately 650-ft west of Verdugo Lane in Section 18, T29S, R27E, M.D.B.&M. The well site property is approximately 105-ft by 210-ft or approximately ½-acre. The site is currently irrigated lawn as part of the community park landscaping. The grass and sprinkler system will be removed within the limits of the well site and the site graded to be level and uniform. The earthwork will involve moving approximately 470 cubic yards and the material will balance so there is no import or off-haul of dirt.

The well is planned to be drilled to an approximate depth of 1,500-ft using the reverse rotary method. Water quality zone testing will be performed in the well pilot hole in an effort to complete a well not requiring treatment. The well construction work will include installing a 50-ft deep, 36-inch diameter steel conductor, drilling a 17 ½ - inch diameter pilot hole, performing geophysical logging, water quality depth sampling, reaming of the pilot hole to 28-inch diameter, installation of 16-inch diameter steel casing, installation of gravel pack, installation of a cement annular seal, and well development. The initial development water will be disposed of in a 20,000 gallon tank and removed from the site. The development water will then be discharged to the existing storm drain system. It is expected that the completed well will have hydrogen sulfide and that well head treatment in the form of ozonation will be used to remove taste and odor.

The site will require over-excavation to 18-inches below proposed concrete foundations and will be recompacted to 90% relative compaction to reduce the potential for settlement. Concrete foundations will be constructed for the deep well, the treatment building, the booster pumps, and the hydropneumatic tank.

The deep well will have a 10-ft by 10-ft by 30-in thick concrete foundation and be equipped with a vertical turbine pump and vertical hollowshaft electric motor with a variable speed drive. The well will have a 10-ft by 10-ft by 11-ft high removable metal enclosure building for noise attenuation. The site will be secured with approximately 575-ft of 8-ft tall masonry block wall and include a drive gate and a personnel gate to Meadow Creek Street for access. The well site will be surfaced with ¾" Class II aggregate base with the limits being the perimeter block wall. The 16-inch well discharge piping will be routed into an approximate 36-ft long by 28-ft wide by 16-ft tall steel building structure with a concrete foundation that is 46-ft by 38-ft by 6-in thick and that houses the electrical equipment including the meter main, motor control center, and

PLC and also houses the treatment equipment. Two air conditioner units will be mounted on a concrete pad on the exterior of the building for interior climate control.

The flow rate from the well will be regulated by a flow control valve to maintain 2,500 gpm and will be metered. The water will pass through a Mazzei flash reactor for mixing of the raw well water with a treated water bypass prior to entering the stainless steel storage tank. Ozone gas will be injected into a bypass flow stream of approximately 250 gpm as a strong oxidant to convert the sulfide to sulfate. The pressure drop across a venturi injector will create a suction that draws in the ozone. The ozone will be generated by a 54 lb/day ozone generator (Model CFS-14) manufactured by Suez. The ozone generator will be supplied cooling water and dry oxygen. It will utilize oxygen and electricity to convert oxygen to ozone. All ozone piping will be stainless steel. The process piping, electrical equipment, ozone generator, air compressor, air dryer, oxygen concentrator, and receiver tanks will be installed in the air-conditioned metal treatment building. An ozone analyzer will be installed inside the treatment building and at the ozone destruct unit to detect any ozone leaks and in that event the analyzer will send an alarm and shutdown the well and ozone operation.

A 6-ft by 7-ft by 8-in thick concrete foundation for a 12.5% sodium hypochlorite storage tank and chemical feed pump is located between the treatment building and the stainless steel storage tank. The well discharge piping will exit the building, transition underground, and resurface and enter an AWWA D103 stainless steel bolted tank that will be constructed with a gravel ring foundation. The stainless steel contact tank dimensions will be 30-ft diameter and 16-ft side shell height. The tank is also equipped with an ozone destruct unit that converts any residual ozone gas back to oxygen. The stainless steel tank discharge piping will be 18-inch diameter steel piping that feeds the suction header for three horizontal centrifugal split-case booster pumps. Each booster pump will have a concrete foundation that is 3-ft by 6-ft by 36-in thick. The booster pumps are equipped with variable speed drives. Two of the pumps are 50hp and the third pump is 100hp. The pump discharge piping then enters a 16-in diameter discharge header. The discharge header enters a 3,000-gallon hydropneumatic pressure vessel. There are two pressure vessel concrete footings each 13-ft long by 5-ft wide by 24-in thick. The 16-inch diameter booster station piping will transition below ground after the pressure vessel and transition to 16-inch C900 PVC pipe. The piping will connect to the existing VWC distribution system at the intersection of Meadow Creek Street and Polo Drive on the west side of the well site, approximately 30-ft in length, and a second connection will be made to the east to the existing VWC distribution system piping in Verdugo Lane via a 16-inch C900 PVC conveyance pipe routed approximately 650-ft east through the park in a private easement.

The well and treatment facility will be painted a neutral color (tan) and site landscaping installed around the perimeter of the site for it to be aesthetically pleasing and blend in with the adjacent park and neighborhood.

VAUGHN WATER COMPANY
MEADOW CREEK WELL
WATER SUPPLY AND TREATMENT FACILITY

EXHIBIT C
"CONSTRUCTION PHASE – AIR EMISSIONS DATA"

VAUGHN WATER COMPANY MEADOW CREEK WELL FACILITY WATER SUPPLY AND TREATMENT FACILITY Summary Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	VAUGHN WATER COMPANY MEADOW CREEK WELL FACILITY WATER SUPPLY AND TREATMENT FACILITY
Construction Start Date	8/1/2023
Operational Year	2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	18.0
Location	35.409130020730274, -119.12123182079463
County	Kern-San Joaquin
City	Bakersfield
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2895
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Southern California Gas
App Version	2022.1.1.13

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

User Defined Industrial	0.00	User Defined Unit	0.50	884	160	160	—	Water well and treatment

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Natural	N-2	Expand Urban Tree Planting
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Construction	C-13	Use Low-VOC Paints for Construction

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

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.	1.57	1.32	12.7	11.9	0.02	0.60	0.13	0.67	0.55	0.03	0.57	—	2,113	2,113	0.08	0.03	0.69	2,125
Mit.	1.57	1.32	12.7	11.9	0.02	0.60	0.13	0.67	0.55	0.03	0.57	—	2,113	2,113	0.08	0.03	0.69	2,125
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.84	1.55	13.4	15.4	0.02	0.61	0.26	0.87	0.56	0.06	0.62	—	2,508	2,508	0.11	0.04	0.03	2,523
Mit.	1.84	1.55	13.4	15.4	0.02	0.61	0.26	0.87	0.56	0.06	0.62	—	2,508	2,508	0.11	0.04	0.03	2,523
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.38	0.32	2.86	3.62	0.01	0.12	0.06	0.18	0.11	0.01	0.13	—	674	674	0.03	0.01	0.13	678
Mit.	0.38	0.32	2.86	3.62	0.01	0.12	0.06	0.18	0.11	0.01	0.13	—	674	674	0.03	0.01	0.13	678
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.06	0.52	0.66	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	112	112	< 0.005	< 0.005	0.02	112
Mit.	0.07	0.06	0.52	0.66	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	112	112	< 0.005	< 0.005	0.02	112
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes
Mit.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes
Mit.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	0.00	0.07	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	107	107	0.00	0.00	0.00	0.00
Unmit.	—	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes

Mit.	—	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes

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.	0.00	0.02	> -0.005	0.00	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	0.00	326	326	0.05	0.01	0.00	329
Mit.	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	335	335	0.05	0.01	0.00	339
% Reduced	—	-16%	100%	—	100%	100%	100%	100%	100%	100%	100%	—	-3%	-3%	—	—	—	-3%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.02	> -0.005	0.00	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	0.00	326	326	0.05	0.01	0.00	329
Mit.	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	335	335	0.05	0.01	0.00	339
% Reduced	—	-16%	100%	—	100%	100%	100%	100%	100%	100%	100%	—	-3%	-3%	—	—	—	-3%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.02	> -0.005	0.00	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	0.00	326	326	0.05	0.01	0.00	329
Mit.	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	335	335	0.05	0.01	0.00	339
% Reduced	—	-16%	100%	—	100%	100%	100%	100%	100%	100%	100%	—	-3%	-3%	—	—	—	-3%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	< 0.005	> -0.005	0.00	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	0.00	54.0	54.0	0.01	< 0.005	0.00	54.5
Mit.	0.00	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55.5	55.5	0.01	< 0.005	0.00	56.1

% Reduced	—	-16%	100%	—	100%	100%	100%	100%	100%	100%	100%	—	-3%	-3%	—	—	—	-3%

6. Climate Risk Detailed Report

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	2	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	N/A	N/A	N/A	N/A
Drought	5	2	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	1	4	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 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	2	1	2	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	N/A	N/A	N/A	N/A
Drought	5	1	2	3

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	1	6	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 include implementation of climate risk reduction measures.

7. Health and Equity Details

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	12.0
Healthy Places Index Score for Project Location (b)	68.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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.

7.5. Evaluation Scorecard

This table summarizes the points earned for each health and equity measure category, and the total possible points for each category. If N/A is selected for any measure(s), the total possible points in that category are reduced accordingly. The points for each category are then weighted on a 15-point scale to determine the score per category and a total weighted score.

Category	Number of Applicable Measures	Total Points Earned by Applicable Measures	Max Possible Points	Weighted Score
Community-Centered Development	5.00	3.00	25.0	1.71
Inclusive Engagement	6.00	0.00	30.0	0.00
Accountability	5.00	0.00	25.0	0.00
Construction Equity	6.00	0.00	30.0	0.00
Public Health and Air Quality	4.00	0.00	20.0	0.00

Inclusive Economics & Prosperity	4.00	0.00	20.0	0.00
Inclusive Communities	4.00	0.00	20.0	0.00
Total	34.0	3.00	170	1.71

Based on the weighted score of 2 out of a total 170 possible points, your project qualifies for the Acorn equity award level.
Organization(s) consulted by the user to complete the Health & Equity Scorecard: DJA

VAUGHN WATER COMPANY MEADOW CREEK WELL FACILITY WATER SUPPLY AND TREATMENT FACILITY Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	VAUGHN WATER COMPANY MEADOW CREEK WELL FACILITY WATER SUPPLY AND TREATMENT FACILITY
Construction Start Date	8/1/2023
Operational Year	2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	18.0
Location	35.409130020730274, -119.12123182079463
County	Kern-San Joaquin
City	Bakersfield
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2895
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Southern California Gas
App Version	2022.1.1.13

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

User Defined Industrial	0.00	User Defined Unit	0.50	884	160	160	—	Water well and treatment

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Natural	N-2	Expand Urban Tree Planting
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Construction	C-13	Use Low-VOC Paints for Construction

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

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.	1.57	1.32	12.7	11.9	0.02	0.60	0.13	0.67	0.55	0.03	0.57	—	2,113	2,113	0.08	0.03	0.69	2,125
Mit.	1.57	1.32	12.7	11.9	0.02	0.60	0.13	0.67	0.55	0.03	0.57	—	2,113	2,113	0.08	0.03	0.69	2,125
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.84	1.55	13.4	15.4	0.02	0.61	0.26	0.87	0.56	0.06	0.62	—	2,508	2,508	0.11	0.04	0.03	2,523
Mit.	1.84	1.55	13.4	15.4	0.02	0.61	0.26	0.87	0.56	0.06	0.62	—	2,508	2,508	0.11	0.04	0.03	2,523
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.38	0.32	2.86	3.62	0.01	0.12	0.06	0.18	0.11	0.01	0.13	—	674	674	0.03	0.01	0.13	678
Mit.	0.38	0.32	2.86	3.62	0.01	0.12	0.06	0.18	0.11	0.01	0.13	—	674	674	0.03	0.01	0.13	678
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.06	0.52	0.66	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	112	112	< 0.005	< 0.005	0.02	112
Mit.	0.07	0.06	0.52	0.66	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	112	112	< 0.005	< 0.005	0.02	112
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes
Mit.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes
Mit.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	0.00	0.07	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	107	107	0.00	0.00	0.00	0.00
Unmit.	—	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes

Mit.	—	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.57	1.32	12.7	11.9	0.02	0.60	0.11	0.67	0.55	0.03	0.57	—	1,829	1,829	0.07	0.03	0.64	1,838
2024	1.06	0.89	8.49	10.7	0.02	0.34	0.13	0.47	0.32	0.03	0.35	—	2,113	2,113	0.08	0.03	0.69	2,125
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.43	0.37	3.48	5.55	0.01	0.16	0.11	0.27	0.14	0.03	0.17	—	936	936	0.04	0.02	0.02	944
2024	1.84	1.55	13.4	15.4	0.02	0.61	0.26	0.87	0.56	0.06	0.62	—	2,508	2,508	0.11	0.04	0.03	2,523
2025	0.65	0.66	3.91	5.08	0.01	0.16	0.14	0.30	0.15	0.03	0.18	—	801	801	0.03	0.01	0.01	805
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.18	0.15	1.40	1.77	< 0.005	0.06	0.03	0.09	0.06	0.01	0.07	—	296	296	0.01	0.01	0.08	298
2024	0.38	0.32	2.86	3.62	0.01	0.12	0.06	0.18	0.11	0.01	0.13	—	674	674	0.03	0.01	0.13	678
2025	0.02	0.03	0.15	0.17	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	—	24.7	24.7	< 0.005	< 0.005	< 0.005	24.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.03	0.03	0.25	0.32	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	48.9	48.9	< 0.005	< 0.005	0.01	49.3
2024	0.07	0.06	0.52	0.66	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	112	112	< 0.005	< 0.005	0.02	112
2025	< 0.005	0.01	0.03	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.10	4.10	< 0.005	< 0.005	< 0.005	4.11

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.57	1.32	12.7	11.9	0.02	0.60	0.11	0.67	0.55	0.03	0.57	—	1,829	1,829	0.07	0.03	0.64	1,838
2024	1.06	0.89	8.49	10.7	0.02	0.34	0.13	0.47	0.32	0.03	0.35	—	2,113	2,113	0.08	0.03	0.69	2,125
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.43	0.37	3.48	5.55	0.01	0.16	0.11	0.27	0.14	0.03	0.17	—	936	936	0.04	0.02	0.02	944
2024	1.84	1.55	13.4	15.4	0.02	0.61	0.26	0.87	0.56	0.06	0.62	—	2,508	2,508	0.11	0.04	0.03	2,523
2025	0.65	0.60	3.91	5.08	0.01	0.16	0.14	0.30	0.15	0.03	0.18	—	801	801	0.03	0.01	0.01	805
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.18	0.15	1.40	1.77	< 0.005	0.06	0.03	0.09	0.06	0.01	0.07	—	296	296	0.01	0.01	0.08	298
2024	0.38	0.32	2.86	3.62	0.01	0.12	0.06	0.18	0.11	0.01	0.13	—	674	674	0.03	0.01	0.13	678
2025	0.02	0.03	0.15	0.17	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	—	24.7	24.7	< 0.005	< 0.005	< 0.005	24.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.03	0.03	0.25	0.32	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	48.9	48.9	< 0.005	< 0.005	0.01	49.3
2024	0.07	0.06	0.52	0.66	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	112	112	< 0.005	< 0.005	0.02	112
2025	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.10	4.10	< 0.005	< 0.005	< 0.005	4.11

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.	0.00	0.02	> -0.005	0.00	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	0.00	326	326	0.05	0.01	0.00	329
Mit.	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	335	335	0.05	0.01	0.00	339

% Reduced	—	-16%	100%	—	100%	100%	100%	100%	100%	100%	100%	—	-3%	-3%	—	—	—	-3%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.02	> -0.005	0.00	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	0.00	326	326	0.05	0.01	0.00	329
Mit.	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	335	335	0.05	0.01	0.00	339
% Reduced	—	-16%	100%	—	100%	100%	100%	100%	100%	100%	100%	—	-3%	-3%	—	—	—	-3%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.02	> -0.005	0.00	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	0.00	326	326	0.05	0.01	0.00	329
Mit.	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	335	335	0.05	0.01	0.00	339
% Reduced	—	-16%	100%	—	100%	100%	100%	100%	100%	100%	100%	—	-3%	-3%	—	—	—	-3%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	< 0.005	> -0.005	0.00	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	0.00	54.0	54.0	0.01	< 0.005	0.00	54.5
Mit.	0.00	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55.5	55.5	0.01	< 0.005	0.00	56.1
% Reduced	—	-16%	100%	—	100%	100%	100%	100%	100%	100%	100%	—	-3%	-3%	—	—	—	-3%

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	335	335	0.05	0.01	—	339
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Vegetation	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	-9.43	-9.43	—	—	—	-9.43
Total	0.00	0.02	> -0.005	0.00	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	0.00	326	326	0.05	0.01	0.00	329
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	335	335	0.05	0.01	—	339
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Vegetation	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	-9.43	-9.43	—	—	—	-9.43
Total	0.00	0.02	> -0.005	0.00	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	0.00	326	326	0.05	0.01	0.00	329
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	335	335	0.05	0.01	—	339
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Vegetation	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	-9.43	-9.43	—	—	—	-9.43
Total	0.00	0.02	> -0.005	0.00	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	0.00	326	326	0.05	0.01	0.00	329
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	55.5	55.5	0.01	< 0.005	—	56.1
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Vegetation	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.56	-1.56	—	—	—	-1.56
Total	0.00	< 0.005	> -0.005	0.00	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	0.00	54.0	54.0	0.01	< 0.005	0.00	54.5

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	335	335	0.05	0.01	—	339
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Vegetation	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	335	335	0.05	0.01	0.00	339
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	335	335	0.05	0.01	—	339
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Vegetatio	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	335	335	0.05	0.01	0.00	339
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	335	335	0.05	0.01	—	339
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Vegetatio n	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	335	335	0.05	0.01	0.00	339
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	55.5	55.5	0.01	< 0.005	—	56.1
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Vegetatio n	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	0.00	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55.5	55.5	0.01	< 0.005	0.00	56.1

3. Construction Emissions Details

3.1. Demolition (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	0.75	7.19	7.06	0.01	0.31	—	0.31	0.28	—	0.28	—	1,102	1,102	0.04	0.01	—	1,105
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.1	24.1	< 0.005	< 0.005	—	24.2
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.00	4.00	< 0.005	< 0.005	—	4.01
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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	0.03	0.03	0.03	0.31	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	58.4	58.4	< 0.005	< 0.005	0.01	59.2
Vendor	< 0.005	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	70.9	70.9	< 0.005	0.01	< 0.005	74.0
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.81	8.81	< 0.005	< 0.005	< 0.005	9.24
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.33	1.33	< 0.005	< 0.005	< 0.005	1.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.55	1.55	< 0.005	< 0.005	< 0.005	1.62
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.20
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.22
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.27
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03

3.2. Demolition (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	0.75	7.19	7.06	0.01	0.31	—	0.31	0.28	—	0.28	—	1,102	1,102	0.04	0.01	—	1,105
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.1	24.1	< 0.005	< 0.005	—	24.2
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.00	4.00	< 0.005	< 0.005	—	4.01
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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	0.03	0.03	0.03	0.31	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	58.4	58.4	< 0.005	< 0.005	0.01	59.2
Vendor	< 0.005	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	70.9	70.9	< 0.005	0.01	< 0.005	74.0
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.81	8.81	< 0.005	< 0.005	< 0.005	9.24
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.33	1.33	< 0.005	< 0.005	< 0.005	1.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.55	1.55	< 0.005	< 0.005	< 0.005	1.62
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.20
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.22

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.27
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03

3.3. Site Preparation (2023) - 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	0.48	0.40	3.77	4.18	0.01	0.20	—	0.20	0.18	—	0.18	—	643	643	0.03	0.01	—	645
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.21	3.21	< 0.005	< 0.005	—	3.22
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.30	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	45.3	45.3	< 0.005	< 0.005	0.19	46.0
Vendor	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	71.9	71.9	< 0.005	0.01	0.19	75.1
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	65.1	65.1	< 0.005	0.01	0.16	68.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.17	2.17	< 0.005	< 0.005	< 0.005	2.26
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.96	1.96	< 0.005	< 0.005	< 0.005	2.06
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.21
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.37
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.32	0.32	< 0.005	< 0.005	< 0.005	0.34

3.4. Site Preparation (2023) - 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	0.48	0.40	3.77	4.18	0.01	0.20	—	0.20	0.18	—	0.18	—	643	643	0.03	0.01	—	645
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.21	3.21	< 0.005	< 0.005	—	3.22
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.30	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	45.3	45.3	< 0.005	< 0.005	0.19	46.0
Vendor	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	71.9	71.9	< 0.005	0.01	0.19	75.1
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	65.1	65.1	< 0.005	0.01	0.16	68.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.17	2.17	< 0.005	< 0.005	< 0.005	2.26
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.96	1.96	< 0.005	< 0.005	< 0.005	2.06
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.21
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.37
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.32	0.32	< 0.005	< 0.005	< 0.005	0.34

3.5. Grading (2023) - 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	1.52	1.28	12.6	11.4	0.02	0.60	—	0.60	0.55	—	0.55	—	1,713	1,713	0.07	0.01	—	1,719

Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.62	0.56	< 0.005	0.03	—	0.03	0.03	—	0.03	—	84.5	84.5	< 0.005	< 0.005	—	84.8
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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	0.10	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	14.0	14.0	< 0.005	< 0.005	—	14.0
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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	0.04	0.04	0.03	0.46	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	68.0	68.0	< 0.005	< 0.005	0.28	69.1
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.9	47.9	< 0.005	0.01	0.13	50.1
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.05	3.05	< 0.005	< 0.005	0.01	3.10
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.36	2.36	< 0.005	< 0.005	< 0.005	2.47
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.51
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.39	0.39	< 0.005	< 0.005	< 0.005	0.41
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 (2023) - 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	1.52	1.28	12.6	11.4	0.02	0.60	—	0.60	0.55	—	0.55	—	1,713	1,713	0.07	0.01	—	1,719
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.62	0.56	< 0.005	0.03	—	0.03	0.03	—	0.03	—	84.5	84.5	< 0.005	< 0.005	—	84.8
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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	0.10	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	14.0	14.0	< 0.005	< 0.005	—	14.0
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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	0.04	0.04	0.03	0.46	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	68.0	68.0	< 0.005	< 0.005	0.28	69.1
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.9	47.9	< 0.005	0.01	0.13	50.1
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.05	3.05	< 0.005	< 0.005	0.01	3.10
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.36	2.36	< 0.005	< 0.005	< 0.005	2.47

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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.51
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.39	0.39	< 0.005	< 0.005	< 0.005	0.41
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 (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	0.36	3.30	3.93	0.01	0.17	—	0.17	0.16	—	0.16	—	607	607	0.02	< 0.005	—	609
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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	0.04	0.03	0.30	0.36	< 0.005	0.02	—	0.02	0.01	—	0.01	—	54.9	54.9	< 0.005	< 0.005	—	55.1
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

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	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.09	9.09	< 0.005	< 0.005	—	9.12
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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	0.02	0.02	0.02	0.20	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	38.9	38.9	< 0.005	< 0.005	< 0.005	39.5
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.65	3.65	< 0.005	< 0.005	0.01	3.71
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.61
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 (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	0.36	3.30	3.93	0.01	0.17	—	0.17	0.16	—	0.16	—	607	607	0.02	< 0.005	—	609
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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	0.04	0.03	0.30	0.36	< 0.005	0.02	—	0.02	0.01	—	0.01	—	54.9	54.9	< 0.005	< 0.005	—	55.1
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.09	9.09	< 0.005	< 0.005	—	9.12

Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
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	0.02	0.02	0.02	0.20	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	38.9	38.9	< 0.005	< 0.005	< 0.005	39.5
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.65	3.65	< 0.005	< 0.005	0.01	3.71
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.61
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. Building Construction (2023) - 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	0.37	0.31	3.32	4.98	0.01	0.15	—	0.15	0.14	—	0.14	—	769	769	0.03	0.01	—	771
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	3.32	4.98	0.01	0.15	—	0.15	0.14	—	0.14	—	769	769	0.03	0.01	—	771
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.59	0.89	< 0.005	0.03	—	0.03	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.16	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	22.7	22.7	< 0.005	< 0.005	—	22.7

Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.73	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	109	109	0.01	< 0.005	0.45	111
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.9	47.9	< 0.005	0.01	0.13	50.1
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.2	24.2	< 0.005	< 0.005	0.06	25.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.53	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	95.4	95.4	0.01	< 0.005	0.01	96.8
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.0	48.0	< 0.005	0.01	< 0.005	50.0
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.3	24.3	< 0.005	< 0.005	< 0.005	25.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.6	17.6	< 0.005	< 0.005	0.03	17.9
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.54	8.54	< 0.005	< 0.005	0.01	8.91
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.32	4.32	< 0.005	< 0.005	< 0.005	4.53
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.92	2.92	< 0.005	< 0.005	0.01	2.97
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.41	1.41	< 0.005	< 0.005	< 0.005	1.48
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.71	0.71	< 0.005	< 0.005	< 0.005	0.75

3.10. Building Construction (2023) - 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	0.37	0.31	3.32	4.98	0.01	0.15	—	0.15	0.14	—	0.14	—	769	769	0.03	0.01	—	771
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	3.32	4.98	0.01	0.15	—	0.15	0.14	—	0.14	—	769	769	0.03	0.01	—	771
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.59	0.89	< 0.005	0.03	—	0.03	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.16	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	22.7	22.7	< 0.005	< 0.005	—	22.7
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.73	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	109	109	0.01	< 0.005	0.45	111
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.9	47.9	< 0.005	0.01	0.13	50.1
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.2	24.2	< 0.005	< 0.005	0.06	25.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.53	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	95.4	95.4	0.01	< 0.005	0.01	96.8
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.0	48.0	< 0.005	0.01	< 0.005	50.0
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.3	24.3	< 0.005	< 0.005	< 0.005	25.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.6	17.6	< 0.005	< 0.005	0.03	17.9
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.54	8.54	< 0.005	< 0.005	0.01	8.91
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.32	4.32	< 0.005	< 0.005	< 0.005	4.53
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.92	2.92	< 0.005	< 0.005	0.01	2.97
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.41	1.41	< 0.005	< 0.005	< 0.005	1.48
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.71	0.71	< 0.005	< 0.005	< 0.005	0.75

3.11. Building Construction (2023) - 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	0.04	0.03	0.32	0.48	< 0.005	0.02	—	0.02	0.01	—	0.01	—	72.6	72.6	< 0.005	< 0.005	—	72.8
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.77	5.77	< 0.005	< 0.005	—	5.79
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	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.95	0.95	< 0.005	< 0.005	—	0.96
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	0.03	0.03	0.02	0.37	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	54.4	54.4	< 0.005	< 0.005	0.23	55.3
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.9	47.9	< 0.005	0.01	0.13	50.1
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.94	3.94	< 0.005	< 0.005	0.01	4.00
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.81	3.81	< 0.005	< 0.005	< 0.005	3.98
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.65	0.65	< 0.005	< 0.005	< 0.005	0.66
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.63	0.63	< 0.005	< 0.005	< 0.005	0.66
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 (2023) - 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	0.04	0.03	0.32	0.48	< 0.005	0.02	—	0.02	0.01	—	0.01	—	72.6	72.6	< 0.005	< 0.005	—	72.8
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.77	5.77	< 0.005	< 0.005	—	5.79

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	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.95	0.95	< 0.005	< 0.005	—	0.96
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	0.03	0.03	0.02	0.37	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	54.4	54.4	< 0.005	< 0.005	0.23	55.3
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.9	47.9	< 0.005	0.01	0.13	50.1
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.94	3.94	< 0.005	< 0.005	0.01	4.00
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.81	3.81	< 0.005	< 0.005	< 0.005	3.98
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.65	0.65	< 0.005	< 0.005	< 0.005	0.66
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.63	0.63	< 0.005	< 0.005	< 0.005	0.66
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 (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	0.46	0.38	3.70	3.67	0.01	0.16	—	0.16	0.14	—	0.14	—	829	829	0.03	0.01	—	832
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	0.46	0.38	3.70	3.67	0.01	0.16	—	0.16	0.14	—	0.14	—	829	829	0.03	0.01	—	832
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	0.90	0.89	< 0.005	0.04	—	0.04	0.04	—	0.04	—	202	202	0.01	< 0.005	—	203
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	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.5	33.5	< 0.005	< 0.005	—	33.6
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.45	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	70.9	70.9	< 0.005	< 0.005	0.27	72.1
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.2	47.2	< 0.005	0.01	0.13	49.4
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	0.04	0.03	0.03	0.33	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	62.3	62.3	< 0.005	< 0.005	0.01	63.2
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.2	47.2	< 0.005	0.01	< 0.005	49.3
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	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.8	15.8	< 0.005	< 0.005	0.03	16.0
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.01	12.0
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	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.61	2.61	< 0.005	< 0.005	< 0.005	2.65
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.91	1.91	< 0.005	< 0.005	< 0.005	1.99
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 (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	0.46	0.38	3.70	3.67	0.01	0.16	—	0.16	0.14	—	0.14	—	829	829	0.03	0.01	—	832
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	0.46	0.38	3.70	3.67	0.01	0.16	—	0.16	0.14	—	0.14	—	829	829	0.03	0.01	—	832
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	0.90	0.89	< 0.005	0.04	—	0.04	0.04	—	0.04	—	202	202	0.01	< 0.005	—	203
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	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.5	33.5	< 0.005	< 0.005	—	33.6
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.45	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	70.9	70.9	< 0.005	< 0.005	0.27	72.1
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.2	47.2	< 0.005	0.01	0.13	49.4
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	0.04	0.03	0.03	0.33	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	62.3	62.3	< 0.005	< 0.005	0.01	63.2
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.2	47.2	< 0.005	0.01	< 0.005	49.3
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	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.8	15.8	< 0.005	< 0.005	0.03	16.0
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.01	12.0

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	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.61	2.61	< 0.005	< 0.005	< 0.005	2.65
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.91	1.91	< 0.005	< 0.005	< 0.005	1.99
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

3.15. Building Construction (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	0.17	0.14	1.64	1.85	< 0.005	0.05	—	0.05	0.05	—	0.05	—	364	364	0.01	< 0.005	—	366
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	0.17	0.14	1.64	1.85	< 0.005	0.05	—	0.05	0.05	—	0.05	—	364	364	0.01	< 0.005	—	366
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	0.03	0.02	0.29	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	—	64.9	64.9	< 0.005	< 0.005	—	65.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	< 0.005	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.34	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	53.2	53.2	< 0.005	< 0.005	0.20	54.1
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.6	23.6	< 0.005	< 0.005	0.06	24.7
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	0.03	0.02	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	46.7	46.7	< 0.005	< 0.005	0.01	47.4
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.6	23.6	< 0.005	< 0.005	< 0.005	24.7
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	—	8.64	8.64	< 0.005	< 0.005	0.02	8.77
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.20	4.20	< 0.005	< 0.005	< 0.005	4.39
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	—	1.43	1.43	< 0.005	< 0.005	< 0.005	1.45
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.70	0.70	< 0.005	< 0.005	< 0.005	0.73
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 (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	0.17	0.14	1.64	1.85	< 0.005	0.05	—	0.05	0.05	—	0.05	—	364	364	0.01	< 0.005	—	366
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	0.17	0.14	1.64	1.85	< 0.005	0.05	—	0.05	0.05	—	0.05	—	364	364	0.01	< 0.005	—	366
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	0.03	0.02	0.29	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01	—	64.9	64.9	< 0.005	< 0.005	—	65.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.34	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	53.2	53.2	< 0.005	< 0.005	0.20	54.1
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.6	23.6	< 0.005	< 0.005	0.06	24.7
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	0.03	0.02	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	46.7	46.7	< 0.005	< 0.005	0.01	47.4
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.6	23.6	< 0.005	< 0.005	< 0.005	24.7
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	—	8.64	8.64	< 0.005	< 0.005	0.02	8.77
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.20	4.20	< 0.005	< 0.005	< 0.005	4.39
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	—	1.43	1.43	< 0.005	< 0.005	< 0.005	1.45
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.70	0.70	< 0.005	< 0.005	< 0.005	0.73
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 (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	0.11	0.09	0.80	0.81	< 0.005	0.03	—	0.03	0.03	—	0.03	—	138	138	0.01	< 0.005	—	138
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.11	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.8	18.8	< 0.005	< 0.005	—	18.9
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	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.12	3.12	< 0.005	< 0.005	—	3.13
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	0.03	0.03	0.02	0.34	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	53.2	53.2	< 0.005	< 0.005	0.20	54.1
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.2	47.2	< 0.005	0.01	0.13	49.4
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.64	6.64	< 0.005	< 0.005	0.01	6.75
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.47	6.47	< 0.005	< 0.005	0.01	6.76
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	—	1.10	1.10	< 0.005	< 0.005	< 0.005	1.12
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.12
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 (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	0.11	0.09	0.80	0.81	< 0.005	0.03	—	0.03	0.03	—	0.03	—	138	138	0.01	< 0.005	—	138
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.11	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.8	18.8	< 0.005	< 0.005	—	18.9
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	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.12	3.12	< 0.005	< 0.005	—	3.13
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	0.03	0.03	0.02	0.34	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	53.2	53.2	< 0.005	< 0.005	0.20	54.1
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.2	47.2	< 0.005	0.01	0.13	49.4
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.64	6.64	< 0.005	< 0.005	0.01	6.75
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.47	6.47	< 0.005	< 0.005	0.01	6.76
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	—	1.10	1.10	< 0.005	< 0.005	< 0.005	1.12
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.12
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 (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	0.35	0.30	3.00	4.29	0.01	0.13	—	0.13	0.12	—	0.12	—	718	718	0.03	0.01	—	720
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.29	0.41	< 0.005	0.01	—	0.01	0.01	—	0.01	—	68.8	68.8	< 0.005	< 0.005	—	69.1

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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.4	11.4	< 0.005	< 0.005	—	11.4
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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.29	3.29	< 0.005	< 0.005	0.01	3.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.42	3.42	< 0.005	< 0.005	0.01	3.58
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.29	0.29	< 0.005	< 0.005	< 0.005	0.29
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.34
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.06
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 (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	0.35	0.30	3.00	4.29	0.01	0.13	—	0.13	0.12	—	0.12	—	718	718	0.03	0.01	—	720
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.29	0.41	< 0.005	0.01	—	0.01	0.01	—	0.01	—	68.8	68.8	< 0.005	< 0.005	—	69.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.4	11.4	< 0.005	< 0.005	—	11.4
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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.29	3.29	< 0.005	< 0.005	0.01	3.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.42	3.42	< 0.005	< 0.005	0.01	3.58
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.29	0.29	< 0.005	< 0.005	< 0.005	0.29
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.34
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.06
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 (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	0.24	0.20	1.94	2.77	< 0.005	0.10	—	0.10	0.09	—	0.09	—	410	410	0.02	< 0.005	—	412
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.2	11.2	< 0.005	< 0.005	—	11.3
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	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.86	1.86	< 0.005	< 0.005	—	1.87
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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.29	3.29	< 0.005	< 0.005	0.01	3.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.42	3.42	< 0.005	< 0.005	0.01	3.58
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.08
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.10
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
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 (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	0.24	0.20	1.94	2.77	< 0.005	0.10	—	0.10	0.09	—	0.09	—	410	410	0.02	< 0.005	—	412
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.2	11.2	< 0.005	< 0.005	—	11.3
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	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.86	1.86	< 0.005	< 0.005	—	1.87
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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.29	3.29	< 0.005	< 0.005	0.01	3.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.42	3.42	< 0.005	< 0.005	0.01	3.58
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.08
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.10
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
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 (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	0.17	0.15	1.40	1.55	< 0.005	0.06	—	0.06	0.05	—	0.05	—	308	308	0.01	< 0.005	—	309
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.44	8.44	< 0.005	< 0.005	—	8.47
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	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.40	1.40	< 0.005	< 0.005	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.29	3.29	< 0.005	< 0.005	0.01	3.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.42	3.42	< 0.005	< 0.005	0.01	3.58
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.08
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.10
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
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 (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	0.17	0.15	1.40	1.55	< 0.005	0.06	—	0.06	0.05	—	0.05	—	308	308	0.01	< 0.005	—	309
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.44	8.44	< 0.005	< 0.005	—	8.47
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	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.40	1.40	< 0.005	< 0.005	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.29	3.29	< 0.005	< 0.005	0.01	3.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.42	3.42	< 0.005	< 0.005	0.01	3.58
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.08
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.10
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
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 (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	0.29	0.25	2.50	3.96	0.01	0.11	—	0.11	0.10	—	0.10	—	600	600	0.02	< 0.005	—	602
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.0	74.0	< 0.005	< 0.005	—	74.2
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	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.2	12.2	< 0.005	< 0.005	—	12.3
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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.29	3.29	< 0.005	< 0.005	0.01	3.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.42	3.42	< 0.005	< 0.005	0.01	3.58
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.38
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.44
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.07
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 (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	0.29	0.25	2.50	3.96	0.01	0.11	—	0.11	0.10	—	0.10	—	600	600	0.02	< 0.005	—	602
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.0	74.0	< 0.005	< 0.005	—	74.2
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	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.2	12.2	< 0.005	< 0.005	—	12.3
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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.29	3.29	< 0.005	< 0.005	0.01	3.35
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.42	3.42	< 0.005	< 0.005	0.01	3.58
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.38
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.44
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.07

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. Paving (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	2.70	3.13	0.01	0.13	—	0.13	0.12	—	0.12	—	487	487	0.02	< 0.005	—	488
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	21.9	21.9	< 0.005	< 0.005	—	22.0
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.63	3.63	< 0.005	< 0.005	—	3.64
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	0.08	0.07	0.07	0.71	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	136	136	0.01	0.01	0.02	138
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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.37	6.37	< 0.005	< 0.005	0.01	6.46
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	—	1.05	1.05	< 0.005	< 0.005	< 0.005	1.07
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

3.28. Paving (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	2.70	3.13	0.01	0.13	—	0.13	0.12	—	0.12	—	487	487	0.02	< 0.005	—	488

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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	21.9	21.9	< 0.005	< 0.005	—	22.0
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.63	3.63	< 0.005	< 0.005	—	3.64
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	0.08	0.07	0.07	0.71	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	136	136	0.01	0.01	0.02	138
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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.37	6.37	< 0.005	< 0.005	0.01	6.46
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	—	1.05	1.05	< 0.005	< 0.005	< 0.005	1.07
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

3.29. Paving (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	2.62	3.13	0.01	0.12	—	0.12	0.11	—	0.11	—	487	487	0.02	< 0.005	—	488
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.71	5.71	< 0.005	< 0.005	—	5.73
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.95	0.95	< 0.005	< 0.005	—	0.95
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	0.07	0.07	0.06	0.65	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	133	133	< 0.005	0.01	0.01	135
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.65
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.27
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

3.30. Paving (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	2.62	3.13	0.01	0.12	—	0.12	0.11	—	0.11	—	487	487	0.02	< 0.005	—	488
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.71	5.71	< 0.005	< 0.005	—	5.73
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.95	0.95	< 0.005	< 0.005	—	0.95
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	0.07	0.07	0.06	0.65	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	133	133	< 0.005	0.01	0.01	135
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.65
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.27
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

3.31. Architectural Coating (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.17	1.23	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	176	176	0.01	< 0.005	—	177
Architectural Coatings	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.02	0.12	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.9	16.9	< 0.005	< 0.005	—	17.0
Architectural Coatings	—	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	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.80	2.80	< 0.005	< 0.005	—	2.81
Architectural Coatings	—	< 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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.09	5.09	< 0.005	< 0.005	< 0.005	5.16
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.51
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.09
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

3.32. Architectural Coating (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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.17	1.23	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	176	176	0.01	< 0.005	—	177
Architectural Coatings	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.02	0.12	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.9	16.9	< 0.005	< 0.005	—	17.0
Architectural Coatings	—	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	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.80	2.80	< 0.005	< 0.005	—	2.81
Architectural Coatings	—	< 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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.09	5.09	< 0.005	< 0.005	< 0.005	5.16
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.51
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.09
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

3.33. Trenching (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	0.23	0.19	1.67	2.39	< 0.005	0.07	—	0.07	0.06	—	0.06	—	338	338	0.01	< 0.005	—	339
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	0.23	0.19	1.67	2.39	< 0.005	0.07	—	0.07	0.06	—	0.06	—	338	338	0.01	< 0.005	—	339
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	0.02	0.02	0.17	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.2	34.2	< 0.005	< 0.005	—	34.4
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	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.67	5.67	< 0.005	< 0.005	—	5.69
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	0.04	0.04	0.02	0.42	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	66.5	66.5	< 0.005	< 0.005	0.26	67.6
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.31	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	58.4	58.4	< 0.005	< 0.005	0.01	59.2
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.14	6.14	< 0.005	< 0.005	0.01	6.24
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	—	1.02	1.02	< 0.005	< 0.005	< 0.005	1.03
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

3.34. Trenching (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	0.23	0.19	1.67	2.39	< 0.005	0.07	—	0.07	0.06	—	0.06	—	338	338	0.01	< 0.005	—	339
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	0.23	0.19	1.67	2.39	< 0.005	0.07	—	0.07	0.06	—	0.06	—	338	338	0.01	< 0.005	—	339
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	0.02	0.02	0.17	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.2	34.2	< 0.005	< 0.005	—	34.4

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	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.67	5.67	< 0.005	< 0.005	—	5.69
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	0.04	0.04	0.02	0.42	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	66.5	66.5	< 0.005	< 0.005	0.26	67.6
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.31	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	58.4	58.4	< 0.005	< 0.005	0.01	59.2
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.14	6.14	< 0.005	< 0.005	0.01	6.24
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	—	1.02	1.02	< 0.005	< 0.005	< 0.005	1.03
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

3.35. Trenching (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	0.11	0.09	0.87	1.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	175	175	0.01	< 0.005	—	176
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.0
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	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.99	1.99	< 0.005	< 0.005	—	1.99
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	0.04	0.04	0.02	0.42	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	66.5	66.5	< 0.005	< 0.005	0.26	67.6
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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.15	4.15	< 0.005	< 0.005	0.01	4.22
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.69	0.69	< 0.005	< 0.005	< 0.005	0.70
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. Trenching (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	0.11	0.09	0.87	1.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	175	175	0.01	< 0.005	—	176
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.0

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	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.99	1.99	< 0.005	< 0.005	—	1.99
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	0.04	0.04	0.02	0.42	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	66.5	66.5	< 0.005	< 0.005	0.26	67.6
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.15	4.15	< 0.005	< 0.005	0.01	4.22
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.69	0.69	< 0.005	< 0.005	< 0.005	0.70
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

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4.1.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	335	335	0.05	0.01	—	339
Total	—	—	—	—	—	—	—	—	—	—	—	—	335	335	0.05	0.01	—	339
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	335	335	0.05	0.01	—	339
Total	—	—	—	—	—	—	—	—	—	—	—	—	335	335	0.05	0.01	—	339
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	55.5	55.5	0.01	< 0.005	—	56.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	55.5	55.5	0.01	< 0.005	—	56.1

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	335	335	0.05	0.01	—	339
Total	—	—	—	—	—	—	—	—	—	—	—	—	335	335	0.05	0.01	—	339
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	335	335	0.05	0.01	—	339
Total	—	—	—	—	—	—	—	—	—	—	—	—	335	335	0.05	0.01	—	339
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	55.5	55.5	0.01	< 0.005	—	56.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	55.5	55.5	0.01	< 0.005	—	56.1

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.2.4. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.2. 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	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.3.1. 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	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.4. Water Emissions by Land Use

4.4.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005

4.4.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.01	0.01	< 0.005	< 0.005	—	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005

4.5. Waste Emissions by Land Use

4.5.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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)

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. 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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. 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)

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pine Fern	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.30	-1.30	—	—	—	-1.30
Carob	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.79	-0.79	—	—	—	-0.79
tupelo	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.86	-0.86	—	—	—	-0.86
Magnolia Southern	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.24	-1.24	—	—	—	-1.24
Subtotal	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	-4.18	-4.18	—	—	—	-4.18
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pine Fern	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Carob	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
tupelo	—	—	—	—	—	—	—	—	—	—	—	—	-1.65	-1.65	—	—	—	-1.65
Magnolia Southern	—	—	—	—	—	—	—	—	—	—	—	—	-3.59	-3.59	—	—	—	-3.59

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	-5.25	-5.25	—	—	—	-5.25
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pine Fern	—	—	0.00	—	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	—	—	—	—	—	—	—
Carob	—	—	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	—	—	—	—	—	—
tupelo	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Magnolia Southern	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Subtotal	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	-9.43	-9.43	—	—	—	-9.43
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pine Fern	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.30	-1.30	—	—	—	-1.30
Carob	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.79	-0.79	—	—	—	-0.79
tupelo	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.86	-0.86	—	—	—	-0.86
Magnolia Southern	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.24	-1.24	—	—	—	-1.24
Subtotal	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	-4.18	-4.18	—	—	—	-4.18
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pine Fern	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Carob	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
tupelo	—	—	—	—	—	—	—	—	—	—	—	—	-1.65	-1.65	—	—	—	-1.65
Magnolia Southern	—	—	—	—	—	—	—	—	—	—	—	—	-3.59	-3.59	—	—	—	-3.59

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	-5.25	-5.25	—	—	—	-5.25
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pine Fern	—	—	0.00	—	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	—	—	—	—	—	—	—
Carob	—	—	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	—	—	—	—	—	—
tupelo	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Magnolia Southern	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Subtotal	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	-0.01	> -0.005	> -0.005	> -0.005	—	-9.43	-9.43	—	—	—	-9.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pine Fern	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.22	-0.22	—	—	—	-0.22
Carob	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.13	-0.13	—	—	—	-0.13
tupelo	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.14	-0.14	—	—	—	-0.14
Magnolia Southern	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.21	-0.21	—	—	—	-0.21
Subtotal	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-0.69	-0.69	—	—	—	-0.69
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pine Fern	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Carob	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
tupelo	—	—	—	—	—	—	—	—	—	—	—	—	-0.27	-0.27	—	—	—	-0.27
Magnolia Southern	—	—	—	—	—	—	—	—	—	—	—	—	-0.59	-0.59	—	—	—	-0.59
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	-0.87	-0.87	—	—	—	-0.87

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pine Fern	—	—	0.00	—	< 0.005	0.00	0.00	0.00	0.00	0.00	0.00	—	—	—	—	—	—	—
Carob	—	—	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	—	—	—	—	—	—
tupelo	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Magnolia Southern	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
Subtotal	—	—	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	> -0.005	> -0.005	—	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	> -0.005	—	-1.56	-1.56	—	—	—	-1.56

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Demolition	Demolition	12/2/2024	12/11/2024	5.00	8.00	Sidewalk and Asphalt
Well Site Preparation	Site Preparation	7/5/2023	7/19/2023	5.00	11.0	Clearing and Grubbing
Rough Grading and Over-ex	Grading	7/20/2023	8/14/2023	5.00	18.0	Rough Grading
Finish Grading	Grading	11/13/2024	12/27/2024	5.00	33.0	Finish Grading
Well Drilling	Building Construction	9/25/2023	12/22/2023	5.00	65.0	Well Drilling
Well Site Fencing	Building Construction	8/15/2023	9/22/2023	5.00	29.0	Block Wall and Gate
Building Construction	Building Construction	1/2/2024	5/3/2024	5.00	89.0	Building and foundations
Water Tank	Building Construction	2/19/2024	5/17/2024	5.00	65.0	Tank Construction and Coating
Piping and Appurtenances	Building Construction	6/17/2024	8/23/2024	5.00	50.0	Above ground Piping and Appurtenances
Treatment System	Building Construction	4/29/2024	6/14/2024	5.00	35.0	Treatment System
Pump and Motor Installation	Building Construction	4/1/2024	4/12/2024	5.00	10.0	Well Pump and Motor
Hydropneumatic tank	Building Construction	4/15/2024	4/26/2024	5.00	10.0	Hydropneumatic tank
Site Electrical Equip	Building Construction	6/24/2024	8/23/2024	5.00	45.0	Electrical equipment
Paving and Sidewalk	Paving	12/9/2024	1/6/2025	5.00	21.0	At both tie-in locations
Paint and coatings	Architectural Coating	1/6/2025	2/21/2025	5.00	35.0	Paint on Piping and Building
Undg. Pipeline	Trenching	9/23/2024	11/12/2024	5.00	37.0	Within the Pipeline Easement
Undg. Electrical	Trenching	8/26/2024	9/27/2024	5.00	25.0	Underground Electrical

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

Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	4.00	33.0	0.73
Demolition	Skid Steer Loaders	Diesel	Average	1.00	4.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Well Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	148	0.41
Well Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Rough Grading and Over-ex	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	148	0.41
Rough Grading and Over-ex	Rollers	Diesel	Average	1.00	6.00	367	0.40
Rough Grading and Over-ex	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Finish Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	148	0.41
Finish Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	5.00	84.0	0.37
Well Drilling	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Well Drilling	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Well Drilling	Forklifts	Diesel	Average	1.00	5.00	82.0	0.20
Well Drilling	Tractors/Loaders/Backhoes	Diesel	Average	1.00	2.00	84.0	0.37
Well Site Fencing	Tractors/Loaders/Backhoes	Diesel	Average	1.00	2.00	84.0	0.37
Building Construction	Excavators	Diesel	Average	1.00	2.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Generator Sets	Diesel	Average	1.00	6.00	14.0	0.74

Water Tank	Cranes	Diesel	Average	1.00	1.00	367	0.29
Water Tank	Tractors/Loaders/Backhoes	Diesel	Average	1.00	3.00	82.0	0.20
Water Tank	Tractors/Loaders/Backhoes	Diesel	Average	1.00	2.00	84.0	0.37
Water Tank	Air Compressors	Diesel	Average	1.00	6.00	46.0	0.31
Piping and Appurtenances	Tractors/Loaders/Backhoes	Diesel	Average	1.00	2.00	84.0	0.37
Piping and Appurtenances	Generator Sets	Diesel	Average	1.00	5.00	14.0	0.74
Treatment System	Cranes	Diesel	Average	1.00	1.00	367	0.29
Treatment System	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Treatment System	Generator Sets	Diesel	Average	1.00	1.00	14.0	0.74
Pump and Motor Installation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	82.0	0.20
Pump and Motor Installation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	5.00	84.0	0.37
Hydropneumatic tank	Cranes	Diesel	Average	1.00	1.00	367	0.29
Hydropneumatic tank	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	84.0	0.37
Hydropneumatic tank	Generator Sets	Diesel	Average	1.00	3.00	14.0	0.74
Site Electrical Equip	Forklifts	Diesel	Average	1.00	1.00	82.0	0.20
Site Electrical Equip	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Paving and Sidewalk	Cement and Mortar Mixers	Diesel	Average	4.00	4.00	10.0	0.56
Paving and Sidewalk	Pavers	Diesel	Average	1.00	4.00	81.0	0.42
Paving and Sidewalk	Rollers	Diesel	Average	1.00	4.00	36.0	0.38
Paving and Sidewalk	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	84.0	0.37
Paint and coatings	Air Compressors	Diesel	Average	1.00	5.00	37.0	0.48

Paint and coatings	Generator Sets	Diesel	Average	1.00	5.00	14.0	0.74
Undg. Pipeline	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Undg. Pipeline	Excavators	Diesel	Average	1.00	3.00	36.0	0.38
Undg. Pipeline	Air Compressors	Diesel	Average	1.00	3.00	37.0	0.48
Undg. Electrical	Excavators	Diesel	Average	1.00	3.00	36.0	0.38
Undg. Electrical	Tractors/Loaders/Backhoes	Diesel	Average	1.00	3.00	84.0	0.37
Undg. Electrical	Generator Sets	Diesel	Average	1.00	1.00	14.0	0.74

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	4.00	33.0	0.73
Demolition	Skid Steer Loaders	Diesel	Average	1.00	4.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Well Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	148	0.41
Well Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Rough Grading and Over-ex	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	148	0.41
Rough Grading and Over-ex	Rollers	Diesel	Average	1.00	6.00	367	0.40
Rough Grading and Over-ex	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Finish Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	148	0.41
Finish Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	5.00	84.0	0.37

Well Drilling	Tractors/Loaders/Backh	Diesel	Average	1.00	6.00	84.0	0.37
Well Drilling	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Well Drilling	Forklifts	Diesel	Average	1.00	5.00	82.0	0.20
Well Drilling	Tractors/Loaders/Backh oes	Diesel	Average	1.00	2.00	84.0	0.37
Well Site Fencing	Tractors/Loaders/Backh oes	Diesel	Average	1.00	2.00	84.0	0.37
Building Construction	Excavators	Diesel	Average	1.00	2.00	82.0	0.20
Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Generator Sets	Diesel	Average	1.00	6.00	14.0	0.74
Water Tank	Cranes	Diesel	Average	1.00	1.00	367	0.29
Water Tank	Tractors/Loaders/Backh oes	Diesel	Average	1.00	3.00	82.0	0.20
Water Tank	Tractors/Loaders/Backh oes	Diesel	Average	1.00	2.00	84.0	0.37
Water Tank	Air Compressors	Diesel	Average	1.00	6.00	46.0	0.31
Piping and Appurtenances	Tractors/Loaders/Backh oes	Diesel	Average	1.00	2.00	84.0	0.37
Piping and Appurtenances	Generator Sets	Diesel	Average	1.00	5.00	14.0	0.74
Treatment System	Cranes	Diesel	Average	1.00	1.00	367	0.29
Treatment System	Tractors/Loaders/Backh oes	Diesel	Average	2.00	8.00	84.0	0.37
Treatment System	Generator Sets	Diesel	Average	1.00	1.00	14.0	0.74
Pump and Motor Installation	Tractors/Loaders/Backh oes	Diesel	Average	2.00	6.00	82.0	0.20
Pump and Motor Installation	Tractors/Loaders/Backh oes	Diesel	Average	1.00	5.00	84.0	0.37
Hydropneumatic tank	Cranes	Diesel	Average	1.00	1.00	367	0.29

Hydropneumatic tank	Tractors/Loaders/Backh	Diesel	Average	1.00	4.00	84.0	0.37
Hydropneumatic tank	Generator Sets	Diesel	Average	1.00	3.00	14.0	0.74
Site Electrical Equip	Forklifts	Diesel	Average	1.00	1.00	82.0	0.20
Site Electrical Equip	Tractors/Loaders/Backh oes	Diesel	Average	2.00	8.00	84.0	0.37
Paving and Sidewalk	Cement and Mortar Mixers	Diesel	Average	4.00	4.00	10.0	0.56
Paving and Sidewalk	Pavers	Diesel	Average	1.00	4.00	81.0	0.42
Paving and Sidewalk	Rollers	Diesel	Average	1.00	4.00	36.0	0.38
Paving and Sidewalk	Tractors/Loaders/Backh oes	Diesel	Average	1.00	4.00	84.0	0.37
Paint and coatings	Air Compressors	Diesel	Average	1.00	5.00	37.0	0.48
Paint and coatings	Generator Sets	Diesel	Average	1.00	5.00	14.0	0.74
Undg. Pipeline	Tractors/Loaders/Backh oes	Diesel	Average	1.00	6.00	84.0	0.37
Undg. Pipeline	Excavators	Diesel	Average	1.00	3.00	36.0	0.38
Undg. Pipeline	Air Compressors	Diesel	Average	1.00	3.00	37.0	0.48
Undg. Electrical	Excavators	Diesel	Average	1.00	3.00	36.0	0.38
Undg. Electrical	Tractors/Loaders/Backh oes	Diesel	Average	1.00	3.00	84.0	0.37
Undg. Electrical	Generator Sets	Diesel	Average	1.00	1.00	14.0	0.74

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	7.50	11.0	LDA,LDT1,LDT2
Demolition	Vendor	3.00	7.37	HHDT,MHDT

Demolition	Hauling	0.13	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Well Site Preparation	—	—	—	—
Well Site Preparation	Worker	5.00	11.0	LDA,LDT1,LDT2
Well Site Preparation	Vendor	3.00	7.37	HHDT,MHDT
Well Site Preparation	Hauling	0.91	20.0	HHDT
Well Site Preparation	Onsite truck	—	—	HHDT
Rough Grading and Over-ex	—	—	—	—
Rough Grading and Over-ex	Worker	7.50	11.0	LDA,LDT1,LDT2
Rough Grading and Over-ex	Vendor	2.00	7.37	HHDT,MHDT
Rough Grading and Over-ex	Hauling	0.00	20.0	HHDT
Rough Grading and Over-ex	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	8.00	11.0	LDA,LDT1,LDT2
Building Construction	Vendor	2.00	7.37	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving and Sidewalk	—	—	—	—
Paving and Sidewalk	Worker	17.5	11.0	LDA,LDT1,LDT2
Paving and Sidewalk	Vendor	—	7.37	HHDT,MHDT
Paving and Sidewalk	Hauling	0.00	20.0	HHDT
Paving and Sidewalk	Onsite truck	—	—	HHDT
Well Drilling	—	—	—	—
Well Drilling	Worker	12.0	11.0	LDA,LDT1,LDT2
Well Drilling	Vendor	2.00	7.37	HHDT,MHDT
Well Drilling	Hauling	0.34	20.0	HHDT
Well Drilling	Onsite truck	—	—	HHDT

Well Site Fencing	—	—	—	—
Well Site Fencing	Worker	6.00	11.0	LDA,LDT1,LDT2
Well Site Fencing	Vendor	2.00	7.37	HHDT,MHDT
Well Site Fencing	Hauling	0.00	20.0	HHDT
Well Site Fencing	Onsite truck	—	—	HHDT
Water Tank	—	—	—	—
Water Tank	Worker	6.00	11.0	LDA,LDT1,LDT2
Water Tank	Vendor	1.00	7.37	HHDT,MHDT
Water Tank	Hauling	0.00	20.0	HHDT
Water Tank	Onsite truck	—	—	HHDT
Piping and Appurtenances	—	—	—	—
Piping and Appurtenances	Worker	6.00	11.0	LDA,LDT1,LDT2
Piping and Appurtenances	Vendor	2.00	7.37	HHDT,MHDT
Piping and Appurtenances	Hauling	0.00	20.0	HHDT
Piping and Appurtenances	Onsite truck	—	—	HHDT
Undg. Pipeline	—	—	—	—
Undg. Pipeline	Worker	7.50	11.0	LDA,LDT1,LDT2
Undg. Pipeline	Vendor	—	7.37	HHDT,MHDT
Undg. Pipeline	Hauling	0.00	20.0	HHDT
Undg. Pipeline	Onsite truck	—	—	HHDT
Treatment System	—	—	—	—
Treatment System	Worker	0.37	11.0	LDA,LDT1,LDT2
Treatment System	Vendor	0.14	7.37	HHDT,MHDT
Treatment System	Hauling	0.00	20.0	HHDT
Treatment System	Onsite truck	—	—	HHDT
Pump and Motor Installation	—	—	—	—
Pump and Motor Installation	Worker	0.37	11.0	LDA,LDT1,LDT2

Pump and Motor Installation	Vendor	0.14	7.37	HHDT,MHDT
Pump and Motor Installation	Hauling	0.00	20.0	HHDT
Pump and Motor Installation	Onsite truck	—	—	HHDT
Hydropneumatic tank	—	—	—	—
Hydropneumatic tank	Worker	0.37	11.0	LDA,LDT1,LDT2
Hydropneumatic tank	Vendor	0.14	7.37	HHDT,MHDT
Hydropneumatic tank	Hauling	0.00	20.0	HHDT
Hydropneumatic tank	Onsite truck	—	—	HHDT
Site Electrical Equip	—	—	—	—
Site Electrical Equip	Worker	0.37	11.0	LDA,LDT1,LDT2
Site Electrical Equip	Vendor	0.14	7.37	HHDT,MHDT
Site Electrical Equip	Hauling	0.00	20.0	HHDT
Site Electrical Equip	Onsite truck	—	—	HHDT
Undg. Electrical	—	—	—	—
Undg. Electrical	Worker	7.50	11.0	LDA,LDT1,LDT2
Undg. Electrical	Vendor	—	7.37	HHDT,MHDT
Undg. Electrical	Hauling	0.00	20.0	HHDT
Undg. Electrical	Onsite truck	—	—	HHDT
Paint and coatings	—	—	—	—
Paint and coatings	Worker	0.67	11.0	LDA,LDT1,LDT2
Paint and coatings	Vendor	—	7.37	HHDT,MHDT
Paint and coatings	Hauling	0.00	20.0	HHDT
Paint and coatings	Onsite truck	—	—	HHDT
Finish Grading	—	—	—	—
Finish Grading	Worker	5.00	11.0	LDA,LDT1,LDT2
Finish Grading	Vendor	—	7.37	HHDT,MHDT
Finish Grading	Hauling	0.00	20.0	HHDT

Finish Grading	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	7.50	11.0	LDA,LDT1,LDT2
Demolition	Vendor	3.00	7.37	HHDT,MHDT
Demolition	Hauling	0.13	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Well Site Preparation	—	—	—	—
Well Site Preparation	Worker	5.00	11.0	LDA,LDT1,LDT2
Well Site Preparation	Vendor	3.00	7.37	HHDT,MHDT
Well Site Preparation	Hauling	0.91	20.0	HHDT
Well Site Preparation	Onsite truck	—	—	HHDT
Rough Grading and Over-ex	—	—	—	—
Rough Grading and Over-ex	Worker	7.50	11.0	LDA,LDT1,LDT2
Rough Grading and Over-ex	Vendor	2.00	7.37	HHDT,MHDT
Rough Grading and Over-ex	Hauling	0.00	20.0	HHDT
Rough Grading and Over-ex	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	8.00	11.0	LDA,LDT1,LDT2
Building Construction	Vendor	2.00	7.37	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving and Sidewalk	—	—	—	—
Paving and Sidewalk	Worker	17.5	11.0	LDA,LDT1,LDT2
Paving and Sidewalk	Vendor	—	7.37	HHDT,MHDT

Paving and Sidewalk	Hauling	0.00	20.0	HHDT
Paving and Sidewalk	Onsite truck	—	—	HHDT
Well Drilling	—	—	—	—
Well Drilling	Worker	12.0	11.0	LDA,LDT1,LDT2
Well Drilling	Vendor	2.00	7.37	HHDT,MHDT
Well Drilling	Hauling	0.34	20.0	HHDT
Well Drilling	Onsite truck	—	—	HHDT
Well Site Fencing	—	—	—	—
Well Site Fencing	Worker	6.00	11.0	LDA,LDT1,LDT2
Well Site Fencing	Vendor	2.00	7.37	HHDT,MHDT
Well Site Fencing	Hauling	0.00	20.0	HHDT
Well Site Fencing	Onsite truck	—	—	HHDT
Water Tank	—	—	—	—
Water Tank	Worker	6.00	11.0	LDA,LDT1,LDT2
Water Tank	Vendor	1.00	7.37	HHDT,MHDT
Water Tank	Hauling	0.00	20.0	HHDT
Water Tank	Onsite truck	—	—	HHDT
Piping and Appurtenances	—	—	—	—
Piping and Appurtenances	Worker	6.00	11.0	LDA,LDT1,LDT2
Piping and Appurtenances	Vendor	2.00	7.37	HHDT,MHDT
Piping and Appurtenances	Hauling	0.00	20.0	HHDT
Piping and Appurtenances	Onsite truck	—	—	HHDT
Undg. Pipeline	—	—	—	—
Undg. Pipeline	Worker	7.50	11.0	LDA,LDT1,LDT2
Undg. Pipeline	Vendor	—	7.37	HHDT,MHDT
Undg. Pipeline	Hauling	0.00	20.0	HHDT
Undg. Pipeline	Onsite truck	—	—	HHDT

Treatment System	—	—	—	—
Treatment System	Worker	0.37	11.0	LDA,LDT1,LDT2
Treatment System	Vendor	0.14	7.37	HHDT,MHDT
Treatment System	Hauling	0.00	20.0	HHDT
Treatment System	Onsite truck	—	—	HHDT
Pump and Motor Installation	—	—	—	—
Pump and Motor Installation	Worker	0.37	11.0	LDA,LDT1,LDT2
Pump and Motor Installation	Vendor	0.14	7.37	HHDT,MHDT
Pump and Motor Installation	Hauling	0.00	20.0	HHDT
Pump and Motor Installation	Onsite truck	—	—	HHDT
Hydropneumatic tank	—	—	—	—
Hydropneumatic tank	Worker	0.37	11.0	LDA,LDT1,LDT2
Hydropneumatic tank	Vendor	0.14	7.37	HHDT,MHDT
Hydropneumatic tank	Hauling	0.00	20.0	HHDT
Hydropneumatic tank	Onsite truck	—	—	HHDT
Site Electrical Equip	—	—	—	—
Site Electrical Equip	Worker	0.37	11.0	LDA,LDT1,LDT2
Site Electrical Equip	Vendor	0.14	7.37	HHDT,MHDT
Site Electrical Equip	Hauling	0.00	20.0	HHDT
Site Electrical Equip	Onsite truck	—	—	HHDT
Undg. Electrical	—	—	—	—
Undg. Electrical	Worker	7.50	11.0	LDA,LDT1,LDT2
Undg. Electrical	Vendor	—	7.37	HHDT,MHDT
Undg. Electrical	Hauling	0.00	20.0	HHDT
Undg. Electrical	Onsite truck	—	—	HHDT
Paint and coatings	—	—	—	—
Paint and coatings	Worker	0.67	11.0	LDA,LDT1,LDT2

Paint and coatings	Vendor	—	7.37	HHDT,MHDT
Paint and coatings	Hauling	0.00	20.0	HHDT
Paint and coatings	Onsite truck	—	—	HHDT
Finish Grading	—	—	—	—
Finish Grading	Worker	5.00	11.0	LDA,LDT1,LDT2
Finish Grading	Vendor	—	7.37	HHDT,MHDT
Finish Grading	Hauling	0.00	20.0	HHDT
Finish Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

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)
Paint and coatings	0.00	0.00	1,326	442	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)

Demolition	0.00	0.00	0.00	1.00	—
Well Site Preparation	80.0	80.0	1.00	0.00	—
Rough Grading and Over-ex	0.00	0.00	3.00	0.00	—
Finish Grading	—	—	0.00	0.00	—
Well Drilling	0.00	170	0.00	0.00	—
Paving and Sidewalk	0.00	0.00	0.00	0.00	< 0.005

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Industrial	< 0.005	80%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	204	0.03	< 0.005
2024	0.00	204	0.03	< 0.005
2025	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
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	1,326	442	—

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)
User Defined Industrial	600,000	204	0.0330	0.0040	0.00

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)
User Defined Industrial	600,000	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
User Defined Industrial	0.00	5,799

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
User Defined Industrial	0.00	5,799

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
User Defined Industrial	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
User Defined Industrial	0.00	—

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

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

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

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

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

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

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
Urban	Entisols	0.50	0.50

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
Urban	Entisols	0.50	0.50

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
Urban	0.50	0.50

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
Urban	0.50	0.50

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
tupelo	2.00	19,366	6.00
Magnolia Southern	4.00	19,555	53.8
Carob	5.00	17,710	5.80
Pine Fern	5.00	21,059	53.5
Pine Fern	-5.00	0.00	0.00
Carob	-5.00	0.00	0.00

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

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	20.1	annual days of extreme heat
Extreme Precipitation	0.00	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
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	2	2	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	N/A	N/A	N/A	N/A
Drought	5	2	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	1	4	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 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	2	1	2	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	N/A	N/A	N/A	N/A
Drought	5	1	2	3
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	1	6	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 include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

6.4.1. Temperature and Extreme Heat

User Selected Measures	Co-Benefits Achieved	Exposure Reduction	Sensitivity Reduction	Adaptive Capacity Increase
D-3: Install Drought Resistant Landscaping	Water Conservation	—	1.00	1.00
EH-5: Upgrade to Efficient Equipment/Infrastructure	Energy and Fuel Savings	—	—	2.00
MH-23: Landscape with Climate Considerations	Improved Ecosystem Health, Water Conservation	—	1.00	—

MH-39: Implement Pervious and Climate-Smart Surfaces	Energy and Fuel Savings, Improved Air Quality, Improved Ecosystem Health, Improved Public Health, Water Conservation	—	1.00	—

6.4.2. Drought

User Selected Measures	Co-Benefits Achieved	Exposure Reduction	Sensitivity Reduction	Adaptive Capacity Increase
D-3: Install Drought Resistant Landscaping	Water Conservation	—	1.00	1.00
D-8: Develop Groundwater Sustainability Plan	Improved Ecosystem Health	—	—	2.00
MH-23: Landscape with Climate Considerations	Improved Ecosystem Health, Water Conservation	—	1.00	—
MH-39: Implement Pervious and Climate-Smart Surfaces	Energy and Fuel Savings, Improved Air Quality, Improved Ecosystem Health, Improved Public Health, Water Conservation	—	1.00	—

6.4.3. Air Quality Degradation

User Selected Measures	Co-Benefits Achieved	Exposure Reduction	Sensitivity Reduction	Adaptive Capacity Increase
EH-5: Upgrade to Efficient Equipment/Infrastructure	Energy and Fuel Savings	—	—	2.00

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	88.7

AQ-PM	98.9
AQ-DPM	24.0
Drinking Water	77.8
Lead Risk Housing	1.24
Pesticides	33.8
Toxic Releases	38.3
Traffic	16.9
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	50.1
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	21.4
Cardio-vascular	53.0
Low Birth Weights	4.36
Socioeconomic Factor Indicators	—
Education	2.30
Housing	0.79
Linguistic	0.51
Poverty	13.0
Unemployment	66.6

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	85.55113563
Employed	41.67842936
Median HI	81.72719107
Education	—
Bachelor's or higher	54.58745028
High school enrollment	100
Preschool enrollment	20.53124599
Transportation	—
Auto Access	91.71050943
Active commuting	1.039394328
Social	—
2-parent households	90.3118183
Voting	79.78955473
Neighborhood	—
Alcohol availability	66.072116
Park access	40.7160272
Retail density	17.91351213
Supermarket access	71.5642243
Tree canopy	8.199666367
Housing	—
Homeownership	82.25330425
Housing habitability	98.35750032
Low-inc homeowner severe housing cost burden	96.67650456
Low-inc renter severe housing cost burden	97.95970743
Uncrowded housing	58.11625818
Health Outcomes	—

Insured adults	79.55857821
Arthritis	76.8
Asthma ER Admissions	74.2
High Blood Pressure	76.3
Cancer (excluding skin)	42.8
Asthma	61.7
Coronary Heart Disease	87.2
Chronic Obstructive Pulmonary Disease	79.3
Diagnosed Diabetes	91.2
Life Expectancy at Birth	36.8
Cognitively Disabled	76.7
Physically Disabled	80.2
Heart Attack ER Admissions	33.1
Mental Health Not Good	67.2
Chronic Kidney Disease	85.5
Obesity	49.6
Pedestrian Injuries	19.6
Physical Health Not Good	84.3
Stroke	91.3
Health Risk Behaviors	—
Binge Drinking	2.4
Current Smoker	56.8
No Leisure Time for Physical Activity	77.8
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	14.8

Elderly	88.9
English Speaking	75.6
Foreign-born	16.1
Outdoor Workers	46.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	47.5
Traffic Density	0.0
Traffic Access	0.0
Other Indices	—
Hardship	28.2
Other Decision Support	—
2016 Voting	65.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	12.0
Healthy Places Index Score for Project Location (b)	68.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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

Measure Title	Co-Benefits Achieved
CCD-1: Consult Pre-existing Community Knowledge/Priorities	Social Equity

7.5. Evaluation Scorecard

This table summarizes the points earned for each health and equity measure category, and the total possible points for each category. If N/A is selected for any measure(s), the total possible points in that category are reduced accordingly. The points for each category are then weighted on a 15-point scale to determine the score per category and a total weighted score.

Category	Number of Applicable Measures	Total Points Earned by Applicable Measures	Max Possible Points	Weighted Score
Community-Centered Development	5.00	3.00	25.0	1.71
Inclusive Engagement	6.00	0.00	30.0	0.00
Accountability	5.00	0.00	25.0	0.00
Construction Equity	6.00	0.00	30.0	0.00
Public Health and Air Quality	4.00	0.00	20.0	0.00
Inclusive Economics & Prosperity	4.00	0.00	20.0	0.00
Inclusive Communities	4.00	0.00	20.0	0.00
Total	34.0	3.00	170	1.71

Based on the weighted score of 2 out of a total 170 possible points, your project qualifies for the Acorn equity award level.
Organization(s) consulted by the user to complete the Health & Equity Scorecard: DJA

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification

Land Use	Water well and treatment site. Sitting on 0.50 acres. Also, we have a 20' wide access and pipeline easement approximately 625' long for a total of 13,000-sf. We will have a 4' wide trench with a 12" PVC water pipe buried 3' deep. This easement is across the park and sod. It will return to sod after the pipe is installed.
Operations: Energy Use	Estimated well site operation energy use based on about 800 AF/year.
Construction: Construction Phases	Typical water well and treatment site construction with a pipeline from the well site to the distribution system on the west side of Verdugo Ln.
Construction: Paving	The pipeline and access easement will be returned to sod after pipeline is installed.
Operations: Refrigerants	The metal building will have two 7.5-ton air conditioning units.
Construction: Off-Road Equipment	Based on a completed well site with similar equipment.
Construction: Dust From Material Movement	Added well drilling material has no grading acreage. The underground pipeline will not require export because the fill will be compacted.
Construction: Trips and VMT	Updated per known number of workers and vendors on site each day.
Operations: Vehicle Data	Estimated operation of one site visit per day while in route to and from other sites.

VAUGHN WATER COMPANY
MEADOW CREEK WELL
WATER SUPPLY AND TREATMENT FACILITY

EXHIBIT D
"SPECIES LIST – BIOLOGICAL CLEARANCE SURVEY"

30 September 2022

Mr. Curtis Skaggs, PE
Dee Jasper & Associates, Inc.
2730 Unicorn Road, Building A
Bakersfield, California 93308

Subj: Biological Clearance Survey, APN 526-010-14, Bakersfield, California.

Mr. Skaggs:

Pruett Biological Resource Consulting, Inc. (PruettBio) has conducted a biological clearance survey for proposed construction of a municipal water well for the Vaughn Water Company, APN 526-010-14, Bakersfield, California. The purpose of this report is to document biological resources identified during a reconnaissance-level field study of the project site and include potential biological resources identified during a literature review of the site and vicinity, identify potential impacts to biological resources resulting from the project, and to recommend avoidance and minimization measures for implementation prior to and during project activities. During the field study, existing habitat conditions, direct observations and/or species sign was recorded to assess the potential for occurrence of special-status species.

Evaluation of potential impacts to listed plant and animal species are required for the issuance of a Conditional Use Permit. This report includes an evaluation of the potential for those special-status biological resources not observed during the field study, with the potential to occur on the property based on the habitat conditions observed. The report is intended to assist in the in the evaluation for the issuance of a Conditional Use Permit (CUP) for the construction of a municipal water treatment facility proposed by the Vaughn Water District.

California Environmental Quality Act (CEQA) Appendix G thresholds have been used to evaluate potential impacts to the biological resources from the proposed project development. The project may be subject to the Metropolitan Bakersfield Habitat Conservation Plan (MBHCP). Impacts to covered plant and animal species, other than blunt-nosed leopard lizard or bird species afforded protection under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711), would be fully-mitigated by participation in the MBHCP. The field study was conducted in accordance with the Federal Endangered Species Act (FESA) section 10(a)(1)(B) permit and California Endangered Species Act (CESA) incidental take permit (ITP) issued by the California Department of Fish and Wildlife, pursuant to Fish and Game Code section 2081(b)(ITP No. 2081-2013-058-04), for the MBHCP. Fieldwork under the permit guidelines would adhere to federal and state protocols satisfying CEQA thresholds. This report would serve to document compliance with ITP **General Provision 7. Take Minimization Measures**, 7.1. Biological Clearance Survey.

The field study included full coverage transect surveys for the detection of listed or otherwise special-status species which may occur and are not afforded standing under FESA or CESA. These special-status species include burrowing owl (*Athene cunicularia*, BUOW), afforded protection under the MBTA. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter, any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R. 21). Sections 3503, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (March 1 - August 15, annually). BOUW populations in the San Joaquin Valley and specific urban populations in metropolitan Bakersfield occur in close association with California ground squirrels (*Otospermophilus beecheyi*).

A field study was conducted on the project on 30 September 2022 by Steven P. Pruett, a CDFW-approved Qualified Biologist for all ITP Covered Species. The project was evaluated on full coverage transects at intervals no greater than 100-feet (30-meters). A 50-foot (15-meter) buffer was included where accessible either visually or by pedestrian transects. The project site is a portion of a fully developed park in northwest Bakersfield surrounded by residential development and associated services including an elementary school.

Based on the location and habitat of the project, the focus of the field study was the detection of occupation by SJKF and BUOW or protected migratory birds. No SJKF or BUOW were observed during the field study. No SJKF potential, known, or natal dens were observed. No SJKF scat, track, or other evidence suggesting SJKF presence was observed. No BUOW was observed. No BUOW burrows or evidence of BUOW presence was observed. No stick nests or passerine nests were observed during the survey.

CEQA Appendix G thresholds have been used to evaluate potential impacts to the biological resources from the proposed project. The project would create a significant impact to biological resources, based on the specifications in Appendix G of the CEQA Guidelines, if the following were to occur:

1. 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;

2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

3. 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;

4. 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;

5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;

6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The following analysis discusses potential impacts associated with the development of the project and provides recommendations where appropriate to further reduce potential impacts.

1. Would the project 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, by the CDFW, or the USFWS?

Direct and indirect impacts, in the form of “incidental take” of a threatened, endangered, or otherwise protected species, are not expected as a result of the development of the proposed project.

2. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the CDFW or the USFWS?

No 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 United States Fish and Wildlife Service exists on the project site. No adverse effect will occur as a result of the development of the proposed project and no mitigation measures are recommended.

3. **Would the project 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?**

No features, identified in wetland categories, appear on the USFWS National Wetlands Inventory mapping (USFWS 2021) on the proposed, modified project site. No federally protected wetlands as defined by Section 404 of the Clean Water Act were identified during the field study conducted for the preparation of this report. No substantial adverse effect will occur as a result of the development of the project. No mitigation measures are recommended.

4. **Would the project 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?**

No migratory wildlife corridors were identified during the literature search or field study. The project will not interfere substantially with the movement of any native fish of wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. The following recommendations are provided for the general protection of bird species that may occur on the project site or vicinity in compliance with the MBTA:

If ground-disturbing activities are planned during the nesting season for migratory birds that may nest on or near the site (generally February 1 through August 31), nesting bird surveys are recommended prior to the commencement of ground disturbance for project activities. If nesting birds are present, no new construction or ground disturbance should occur within an appropriate avoidance area for that species until young have fledged, unless otherwise approved and monitored by a qualified onsite biologist. Appropriate avoidance should be determined by a qualified biologist. In general, minimum avoidance zones for active nests should be implemented as follows: 1) ground or low-shrub nesting non-raptors – 300 feet (91 meters); 2) burrowing owl – as appropriate based on nest location, existing surrounding activity, and evaluation of owl behavior. Coordination with CDFW may be warranted. 3) Sensitive raptors (e.g., prairie falcon, golden eagle) – 0.5 miles (0.8 kilometers); 3) other raptors – 500 feet (152 meters).

5. **Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

There are no biological resources on the site which are protected by local policies. Impacts from conflicts with local policies will not occur. No additional mitigation measures are recommended.

6. **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.**

The project does not conflict with any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No additional mitigation measures are recommended.

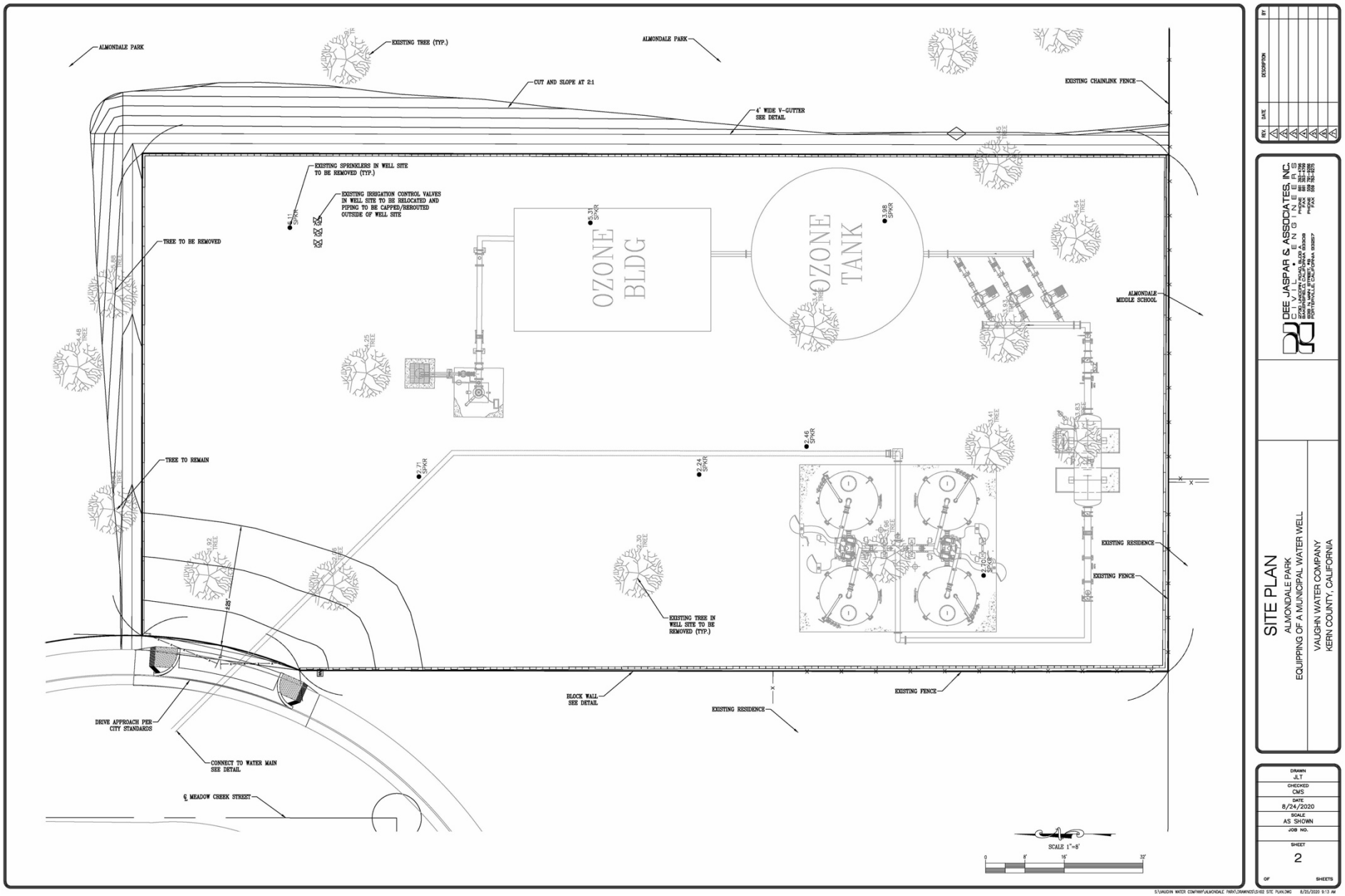
No significant impacts to listed or otherwise special status species are expected to occur as a result of the proposed project.

Please do not hesitate to contact me if you have any questions or require additional information.

Respectfully,

Steven P. Pruett, Principal Biologist

Attachment



Attachment 1. Engineering drawing of the project site (Dee Jasper & Associates 2022).

Attachment 2. Photograph taken from about the NW corner facing SE (30Sep22).

Attachment 3. Photograph taken from about the SE corner facing N (30Sep22).

Attachment 4. Photograph taken from about the SE corner facing NW (30Sep22).

Attachment 5. Photograph taken from about the SE corner facing W (30Sep22).

Attachment 6: MBHCP Urban Development ITP Report Distribution

Metropolitan Bakersfield Habitat Conservation Plan

MBHCP GROUND-DISTURBANCE COMPLIANCE FORM

PROJECT or MAP NO._____ **GRADING PERMIT NO. (if applicable)** _____

CONTACT NAME _____ **PHONE NO.** _____

SITE ADDRESS (or general location) _____

PROJECT TYPE/DESCRIPTION _____

THE FOLLOWING IS REQUIRED FOR ALL GROUND-DISTURBANCE ACTIVITIES:

1. A Biological Clearance Survey is required on all projects no more than 30 days prior to grading or other ground-disturbance activities by a Qualified Biologist (see Exhibit A). The Survey Area includes: 1) all areas to be permanently (e.g., buildings, hardscapes, landscape, etc.) and temporarily (e.g., staging areas, utility undergrounding footprints, etc.) disturbed as well as 2) a 50-foot buffer of both the permanent and temporary disturbance areas. If ground disturbance ceases for over 30 days or has occurred for more than one year and the month is January, then an additional Biological Clearance Survey is required.

2. The Qualified Biologist shall map the Survey Area onto the grading plan or other ground-disturbance plan, and include the map in the Biological Clearance Survey Report. The Survey Area Map shall include: 1) total gross acres of disturbance, 2) bearings and distances, 3) extent of permanent and temporary ground disturbance, and 4) extent of Survey Area.

3. If survey results find Covered Species (see Exhibit B) within the Survey Area, a written Notice of Grading Start is required at least five business days prior to any ground-disturbance activities (excludes weekends and holidays) (see Exhibit C). The Notice of Grading Start shall only be submitted AFTER all required minimization measures are implemented (see Exhibit D).

4. The Qualified Biologist shall email the Biological Clearance Survey Report to the proper agencies. The Survey Report shall include: 1) Survey Area Map and 2) signed Biological Clearance Statement. Please save or print your email as proof of notification.

Ctrl + Click to: EMAIL TO THESE AGENCIES
EMAIL SUBJECT LINE: "MBHCP CLEARANCE SURVEY - GRADING PERMIT NO. _____" OR "MBHCP CLEARANCE SURVEY – PROJECT OR MAP NO. _____"

City of Bakersfield	MBHCP Staff Phone (661) 326-3733 Fax (661) 852-2136	MBHCPsurvey@bakersfieldcity.us
U.S. Fish and Wildlife Service	Patricia Cole and Justin Sloan Phone (916) 414-6600 Fax (916) 414-6712	patricia_cole@fws.gov justin_sloan@fws.gov
California Department of Fish and Wildlife	Jennifer Giannetta, John Battistoni, and Janice Yoshioka Phone (559) 243-4014 ext. 247 Fax (559) 243-4020	Jennifer.Giannetta@wildlife.ca.gov John.Battistoni@wildlife.ca.gov Janice.Yoshioka@wildlife.ca.gov

VAUGHN WATER COMPANY
MEADOW CREEK WELL
WATER SUPPLY AND TREATMENT FACILITY

EXHIBIT E
CULTURAL RESOURCES ASSESSMENT AND
"CALIFORNIA HISTORICAL RESOURES INFORMATION SYSTEMS (CHRIS)
– CULTURAL, HISTORIC, AND ARCHAEOLOGICAL RESOURES RECORDS SEARCH"

CULTURAL RESOURCES ASSESSMENT

Almondale Well Site Project

Bakersfield, Kern County, California

BCRCONSULTING

April 1, 2023

CULTURAL RESOURCES ASSESSMENT

Almondale Well Site Project

Bakersfield, Kern County, California

Prepared for:

Curtis M. Skaggs, P.E.
Dee Jaspar & Associates, Inc.
2730 Unicorn Road Unit A
Bakersfield, California 93308

Prepared by:

David Brunzell, M.A., RPA
Contributions By: Nicholas Shepetuk, B.A., and Douglas Kazmier, B.A.
BCR Consulting
505 West 8th Street
Claremont, California 91711

Project No. DJA2202

National Archaeological Data Base Information:
Type of Study: Cultural Resources Assessment/Inventory
Resources Recorded: None
Keywords: Bakersfield
USGS Quadrangle: 7.5-minute *Oildale, California* (1968)

BCRCONSULTING

April 1, 2023

MANAGEMENT SUMMARY

BCR Consulting LLC (BCR Consulting) is under contract to Dee Jasper and Associates, Inc. to complete a Cultural Resources Assessment of the proposed Vaughn Water Company Well Site Project (project) in the City of Bakersfield (City), Kern County, California. A cultural resources records search, intensive-level pedestrian field survey, Sacred Lands File Search through the Native American Heritage Commission, and vertebrate paleontological resources assessment were conducted for the project in partial fulfillment of the California Environmental Quality Act (CEQA).

The records search revealed that nine cultural resource studies have taken place resulting in the recording of two cultural resources within one-half mile of the project site. One of the nine previous studies one has previously assessed the project site for cultural resources and no cultural resources have been previously recorded within its boundaries. During the field survey BCR Consulting archaeologists identified no cultural resources or sensitivity for buried resources within the project site boundaries. Based on these results, no significant impact related to historical resources is anticipated and no further investigations are recommended for the proposed project unless:

- The proposed project is changed to include areas that have not been subject to this cultural resource assessment;
- Cultural materials are encountered during project activities.

The current study attempted to determine whether significant archaeological deposits were present on the proposed project site. Although none were yielded during the records search and field survey, ground-disturbing activities have the potential to reveal buried deposits not observed on the surface. Prior to the initiation of ground-disturbing activities, field personnel should be alerted to the possibility of buried prehistoric or historic cultural deposits. In the event that field personnel encounter buried cultural materials, work in the immediate vicinity of the find should cease and a qualified archaeologist should be retained to assess the significance of the find. The qualified archaeologist shall have the authority to stop or divert construction excavation as necessary. If the qualified archaeologist finds that any cultural resources present meet eligibility requirements for listing on the California Register or the National Register of Historic Places (National Register), plans for the treatment, evaluation, and mitigation of impacts to the find will need to be developed. Prehistoric or historic cultural materials that may be encountered during ground-disturbing activities include:

- historic-period artifacts such as glass bottles and fragments, cans, nails, ceramic and pottery fragments, and other metal objects;
- historic-period structural or building foundations, walkways, cisterns, pipes, privies, and other structural elements;
- prehistoric flaked-stone artifacts and debitage (waste material), consisting of obsidian, basalt, and or cryptocrystalline silicates;
- groundstone artifacts, including mortars, pestles, and grinding slabs;
- dark, greasy soil that may be associated with charcoal, ash, bone, shell, flaked stone, groundstone, and fire affected rocks;
- human remains.

Findings were negative during the Sacred Lands File search with the NAHC. The Legislature added requirements regarding tribal cultural resources for CEQA in Assembly Bill 52 (AB 52)

that took effect July 1, 2015. AB 52 requires consultation with California Native American tribes and consideration of tribal cultural resources in the CEQA process. By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process. To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a Proposed Project. Since the lead agency will initiate and carry out the required AB52 Native American Consultation, the results of the consultation are not provided in this report. However, this report may be used during the consultation process, and BCR Consulting staff is available to answer questions and address concerns as necessary.

According to CEQA Guidelines, projects subject to CEQA must determine whether the project would "directly or indirectly destroy a unique paleontological resource". The Paleontological Overview provided in Appendix D has recommended that:

> The geologic units underlying the project area are mapped primarily as Plesitocene nonmarine deposits (Smith 1964). Pleistocene units are considered to be paleontologically sensitive. The Western Science Center does not have localities within the project area or within a 1 mile radius. However, this is likely due to the project area's distance from the museum and should not be taken as indicative of paleontological sensitivity; other repositories may have localities in the area.
>
> Any fossils recovered from the Vaughn Water Company Well Site Project would be scientifically significant. Excavation activity associated with development of the project area could impact the paleontologically sensitive Pleistocene units close to the project area, and due to this proximity it is the recommendation of the Western Science Center that a paleontological resource mitigation program be put in place to monitor, salvage, and curate any recovered fossils associated with the current study area.

If human remains are encountered during the undertaking, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.

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FIGURES

TABLES

APPENDICES

INTRODUCTION

BCR Consulting LLC is under contract to Dee Jaspar & Associates, LLC to conduct a Cultural Resources Assessment of the proposed Almondale Well Site Project in the City of Bakersfield, Kern County, California. The project site is located in Section 18 of Township 29 South, Range 28 East, Mount Diablo Baseline and Meridian, in the City of Bakersfield. It is depicted on the United States Geological Survey (USGS) *Oildale, California* (1968) 7.5-minute topographic quadrangle (Figure 1). The work is being performed in fulfillment of requirements of the California Environmental Quality Act (CEQA).

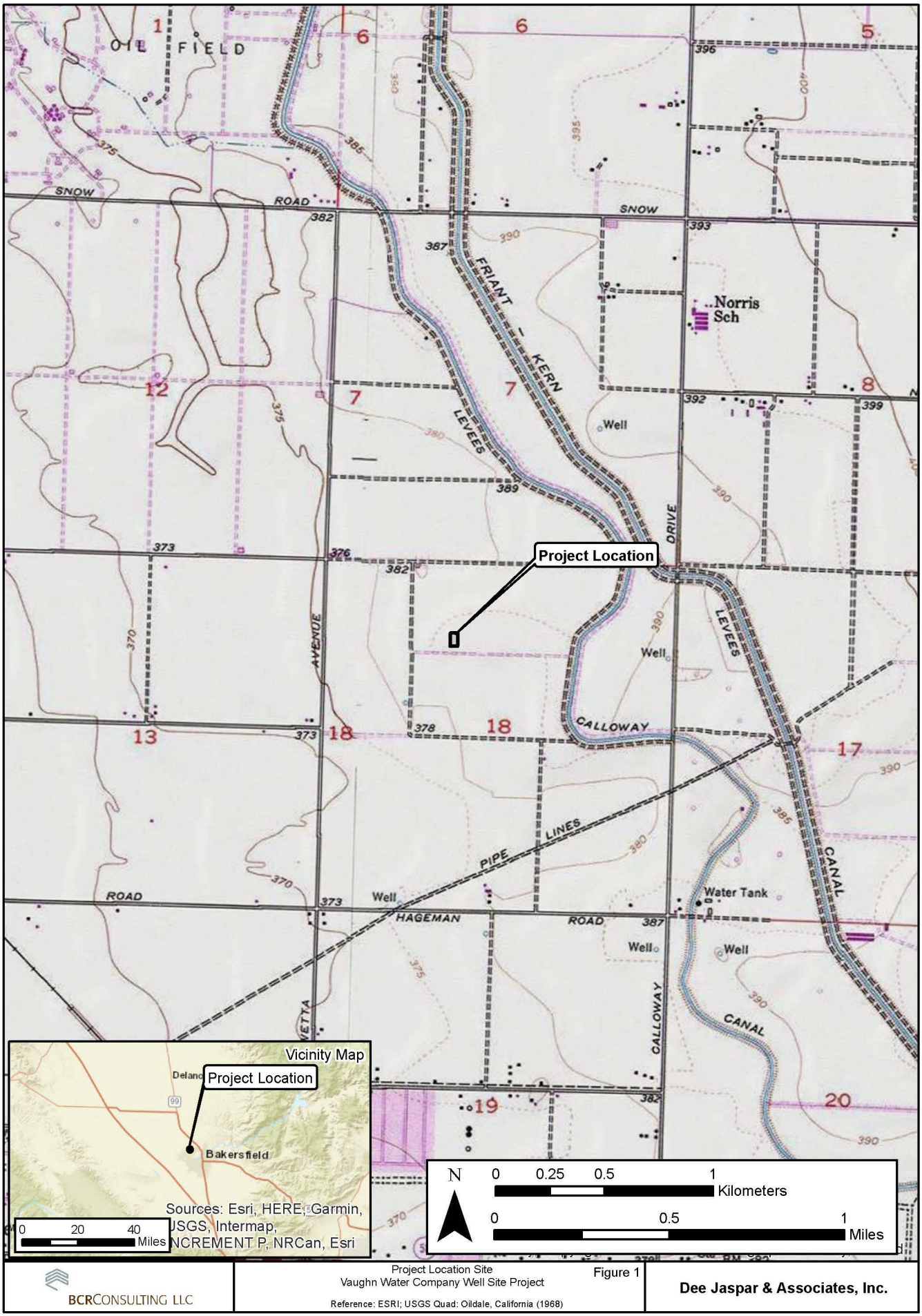
REGULATORY SETTING

The California Environmental Quality Act. CEQA applies to all discretionary projects undertaken or subject to approval by the state's public agencies (California Code of Regulations 14(3), § 15002(i)). Under CEQA, "A project with an effect 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" (Cal. Code Regs. tit. 14(3), § 15064.5(b)). State CEQA Guidelines section 15064.5(a) defines a "historical resource" as a resource that meets one or more of the following criteria:

- Listed in, or eligible for listing in, the California Register of Historical Resources (California Register)
- Listed in a local register of historical resources (as defined at Cal. Public Res. Code § 5020.1(k))
- Identified as significant in a historical resource survey meeting the requirements of § 5024.1(g) of the Cal. Public Res. Code
- Determined to be a historical resource by a project's lead agency (Cal. Code Regs. tit. 14(3), § 15064.5(a))

A historical resource consists of "Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California…Generally, a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing in the California Register of Historical Resources" (Cal. Code Regs. tit. 14(3), § 15064.5(a)(3)).

The significance of a historical resource is impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for the California Register. If an impact on a historical or archaeological resource is significant, CEQA requires feasible measures to minimize the impact (State CEQA Guidelines § 15126.4 (a)(1)). Mitigation of significant impacts must lessen or eliminate the physical impact that the project will have on the resource. Section 5024.1 of the Cal. Public Res. Code established the California Register. Generally, a resource is considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register (Cal. Code Regs. tit. 14(3), § 15064.5(a)(3)). The eligibility criteria for the California Register are similar to those of the National Register of Historic Places (National Register), and a resource that meets one or more of the eligibility criteria of the National Register will be eligible for the California Register.



Project Location Site
Vaughn Water Company Well Site Project

Figure 1

Reference: ESRI; USGS Quad: Oildale, California (1968)

BCR CONSULTING LLC

Dee Jaspar & Associates, Inc.

The California Register program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for state historic preservation grant funding and affords certain protections under CEQA. Criteria for Designation:

1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
2. Associated with the lives of persons important to local, California or national history.
3. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

In addition to meeting one or more of the above criteria, the California Register requires that sufficient time has passed since a resource's period of significance to "obtain a scholarly perspective on the events or individuals associated with the resources." (CCR 4852 [d][2]). Fifty years is normally considered sufficient time for a potential historical resource, and in order that the evaluation remain valid for a minimum of five years after the date of this report, all resources older than 45 years (i.e. resources from the "historic-period") will be evaluated for California Register listing eligibility, or CEQA significance. The California Register also requires that a resource possess integrity. This is defined as the ability for the resource to convey its significance through seven aspects: location, setting, design, materials, workmanship, feeling, and association.

Finally, CEQA requires that significant effects on unique archaeological resources be considered and addressed. CEQA defines a unique archaeological resource as any 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:

1. Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

CEQA Guidelines Section 15064.5 Appendix G includes significance criteria relative to archaeological and historical resources. These have been utilized as thresholds of significance here, and a project would have a significant environmental impact if it would:

a) cause a substantial adverse change in the significance of a historical resource as defined in section 10564.5;

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 10564.5;

c) Disturb any human remains, including those interred outside of formal cemeteries.

Tribal Cultural Resources. The Legislature added requirements regarding tribal cultural resources for CEQA in Assembly Bill 52 (AB 52) that took effect July 1, 2015. AB 52 requires consultation with California Native American tribes and consideration of tribal cultural resources in the CEQA process. By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process. To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a Proposed Project. Since the City will initiate and carry out the required AB52 Native American Consultation, the results of the consultation are not provided in this report. However, this report may be used during the consultation process, and BCR Consulting staff are available to answer questions and address comments as necessary.

Paleontological Resources. CEQA provides guidance relative to significant impacts on paleontological resources, indicating that a project would have a significant impact on paleontological resources if it disturbs or destroys a unique paleontological resource or site or unique geologic feature. Section 5097.5 of the California Public Resources Code specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, California Penal Code Section 622.5 sets the penalties for damage or removal of paleontological resources. CEQA documentation prepared for projects would be required to analyze paleontological resources as a condition of the CEQA process to disclose potential impacts. Please note that as of January 2018 paleontological resources are considered in the geological rather than cultural category. Therefore, paleontological resources are not summarized in the body of this report. A paleontological overview completed by the Western Science Center is provided as Appendix D.

NATURAL SETTING

The elevation of the APE is approximately 385 feet above mean sea level. It is located in the central portion of southern San Joaquin Valley. Local rainfall averages approximately eight inches per year, and the runoff is channeled from northeast to southwest. Most of the local vegetation currently consists of non-native seasonal grasses and Russian thistle. Prior to the introduction of large-scale agriculture, the San Joaquin River and Tulare Lake's system of channels, sloughs, and tule-choked marshes defined the local ecosystem (Wallace 1978:462). As a result, the biotic character of the valley was historically much more diversified than is presently evident. Large freshwater marshes and vast expanses of grassland supported a variety of wildlife, including grizzly bears and wolves (both locally extinct), tule elk, jackrabbits, quail, and numerous fish, rodents, reptiles and birds (Twisselmann 1967, Osborne 1992, Cogswell 1977, and Moyle 1976).

CULTURAL SETTING

Prehistory

The APE is situated within the traditional boundaries of the Southern Valley Yokuts. This prehistoric population depended heavily on the Tulare, Buena Vista, and Kern Lakes and their connecting sloughs and rivers for sustenance and transportation (Wallace 1978:448). The local Southern Valley Yokuts, referred to as the Chuxoxi, represented one of the southernmost Yokut political units and were associated with the channels and sloughs of the Kern River delta (Wallace 1978:449; Kroeber 1925:483). Chuxoxi trade routes and rights to the delta allowed them to reap the benefits of the related perennial water sources. This enabled local populations to pursue a relatively sedentary lifestyle in an otherwise arid climate. Prehistorically, such sedentism often coincides with a village-style residential model in which residential bases remain the same or seasonal, while specialized procurement parties are deployed to more remote areas to collect specialized resources (Binford 1980, Thomas 1983). This village model has been locally supported by early ethnographers, who considered Yokuts unique in California for forming "true tribes" and for developing an unparalleled array of dialects (Kroeber 1925:474).

History

The first Europeans to establish contact with the Southern Valley Yokuts were Spanish troops led by Captain Don Pedro Fages in pursuit of deserters. Father Francisco Garces also travelled through the San Joaquin Valley searching for an overland route from Yuma to Monterey. During his travels, Garces noted positive interactions with locals (see Smith 1939, Bailey 1984). The Mexican era (1821-1848) saw little notable cultural exchange between Mexicans and Southern Valley Yokuts, although an 1833 malaria epidemic devastated the local native population (Wallace 1978:460). The ensuing American era, punctuated by California’s annexation into the United States in 1848, resulted in overwhelming Anglo settlement and seizing of Indian lands, and disrupted any remaining prehistoric Yokut influence in the San Joaquin Valley. Mining and ranching represented the early historical focus of the San Joaquin Valley, although the region’s abundant natural water supply, mild climate, and huge tracts of arable land soon led to the successful development of agriculture. The resulting diversion of local water and skyrocketing real estate values transformed the physical and economic character of the valley and have allowed it to remain one of the most productive agricultural regions in the world to this day (Preston 1981).

PERSONNEL

David Brunzell, M.A., RPA, acted as the Project Manager and Principal Investigator for the current study. Southern San Joaquin Valley Information Center (SSJVIC) personnel completed the cultural resources records search at California State University, Bakersfield. BCR Consulting Staff Archaeologist Douglas Kazmier, B.A., completed the pedestrian field survey. Mr. Brunzell compiled the technical report with contributions by Mr. Kazmier and BCR Consulting Archaeological Crew Chief Nicholas Shepetuk, B.A.

METHODS

Research

Prior to fieldwork, an archaeological records search was conducted at the SSJVIC. This included a review of all recorded historic and prehistoric cultural resources, as well as a review of known cultural resources, and survey and excavation reports generated from projects located within one-half mile of the project site (see Appendix A). In addition, a review was conducted of the National Register of Historic Places (National Register), the California Register of Historical Resources (California Register), and documents and inventories from the California Office of Historic Preservation including the lists of California Historical Landmarks, California Points of Historical Interest, Listing of National Register Properties, and the Inventory of Historic Structures.

Field Survey

Mr. Kazmier conducted a pedestrian field survey of the APE on January 2, 2023. The survey was conducted by walking parallel transects spaced approximately 15 meters apart across 100 percent of the APE. Soil exposures, including natural and artificial clearings were carefully inspected for evidence of cultural resources.

RESULTS

Research

Data from the SSJVIC revealed that nine cultural resource studies have taken place resulting in the recording of two cultural resources (both historic-period) within a one-half mile radius of the project site. Of the nine previous studies, one has previously assessed the project site, resulting in the recording of no cultural resources within its boundaries (see Appendix A).

Table A. Cultural Resources and Reports Within One-Half Mile of the Project Site

USGS 7.5 Min Quad	Cultural Resources Within One Half-Mile of Project Site	Studies W/in One-Half Mile
Oildale (1968)	P-15-7233: Historic-Period Canal (0.4 Miles E) P-15-10561: Prehistoric Lithic Scatter (0.45 Miles NW)	KE-962, 1389*, 1399, 1431, 1819, 2488, 2716, 2807, 3677

*Previously assessed the project site

Field Survey

During the field survey, Mr. Kazmier carefully inspected the project site, and identified no cultural resources/historic properties within its boundaries. Surface visibility was approximately 20 percent within the project site. Soil in the area comprised moderately-dark-grayish-brown sandy silt with no gravel inclusions. Vegetation was characterized as landscaped non-native grasses and young ornamental trees. Ground disturbances were severe and resulted from a variety factors including grading, landscaping, and construction of the surrounding infrastructure.

RECOMMENDATIONS

BCR Consulting conducted a Cultural Resources Assessment of the Almondale Well Site Project in the City of Bakersfield, Kern County, California. This work was completed pursuant to CEQA. The records search and field survey did not identify any cultural resources (including

prehistoric or historic archaeological sites or historic buildings) within the project site. Furthermore, research results combined with surface conditions have failed to indicate sensitivity for buried cultural resources. Based on these results, BCR Consulting recommends a finding of no historical resources affected for this undertaking. Based on these results, no significant impact related to historical resources is anticipated and no further investigations are recommended for the proposed project unless:

- The proposed project is changed to include areas that have not been subject to this cultural resource assessment;
- Cultural materials are encountered during project activities.

The current study attempted to determine whether significant archaeological deposits were present on the proposed project site. Although none were yielded during the records search and field survey, ground-disturbing activities have the potential to reveal buried deposits not observed on the surface. Prior to the initiation of ground-disturbing activities, field personnel should be alerted to the possibility of buried prehistoric or historic cultural deposits. In the event that field personnel encounter buried cultural materials, work in the immediate vicinity of the find should cease and a qualified archaeologist should be retained to assess the significance of the find. The qualified archaeologist shall have the authority to stop or divert construction excavation as necessary. If the qualified archaeologist finds that any cultural resources present meet eligibility requirements for listing on the California Register or the National Register of Historic Places (National Register), plans for the treatment, evaluation, and mitigation of impacts to the find will need to be developed. Prehistoric or historic cultural materials that may be encountered during ground-disturbing activities include:

- historic-period artifacts such as glass bottles and fragments, cans, nails, ceramic and pottery fragments, and other metal objects;
- historic-period structural or building foundations, walkways, cisterns, pipes, privies, and other structural elements;
- prehistoric flaked-stone artifacts and debitage (waste material), consisting of obsidian, basalt, and or cryptocrystalline silicates;
- groundstone artifacts, including mortars, pestles, and grinding slabs;
- dark, greasy soil that may be associated with charcoal, ash, bone, shell, flaked stone, groundstone, and fire affected rocks;
- human remains.

Findings were negative during the Sacred Lands File search with the NAHC. The Legislature added requirements regarding tribal cultural resources for CEQA in Assembly Bill 52 (AB 52) that took effect July 1, 2015. AB 52 requires consultation with California Native American tribes and consideration of tribal cultural resources in the CEQA process. By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process. To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a Proposed Project. Since the lead agency will initiate and carry out the required AB52 Native American

Consultation, the results of the consultation are not provided in this report. However, this report may be used during the consultation process, and BCR Consulting staff is available to answer questions and address concerns as necessary.

According to CEQA Guidelines, projects subject to CEQA must determine whether the project would "directly or indirectly destroy a unique paleontological resource". The Paleontological Overview provided in Appendix D has recommended that:

> The geologic units underlying the project area are mapped primarily as Plesitocene nonmarine deposits (Smith 1964). Pleistocene units are considered to be paleontologically sensitive. The Western Science Center does not have localities within the project area or within a 1 mile radius. However, this is likely due to the project area's distance from the museum and should not be taken as indicative of paleontological sensitivity; other repositories may have localities in the area.
>
> Any fossils recovered from the Vaughn Water Company Well Site Project would be scientifically significant. Excavation activity associated with development of the project area could impact the paleontologically sensitive Pleistocene units close to the project area, and due to this proximity it is the recommendation of the Western Science Center that a paleontological resource mitigation program be put in place to monitor, salvage, and curate any recovered fossils associated with the current study area.

If human remains are encountered during the undertaking, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.

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APPENDIX A

RECORDS SEARCH BIBLIOGRAPHY

Report List

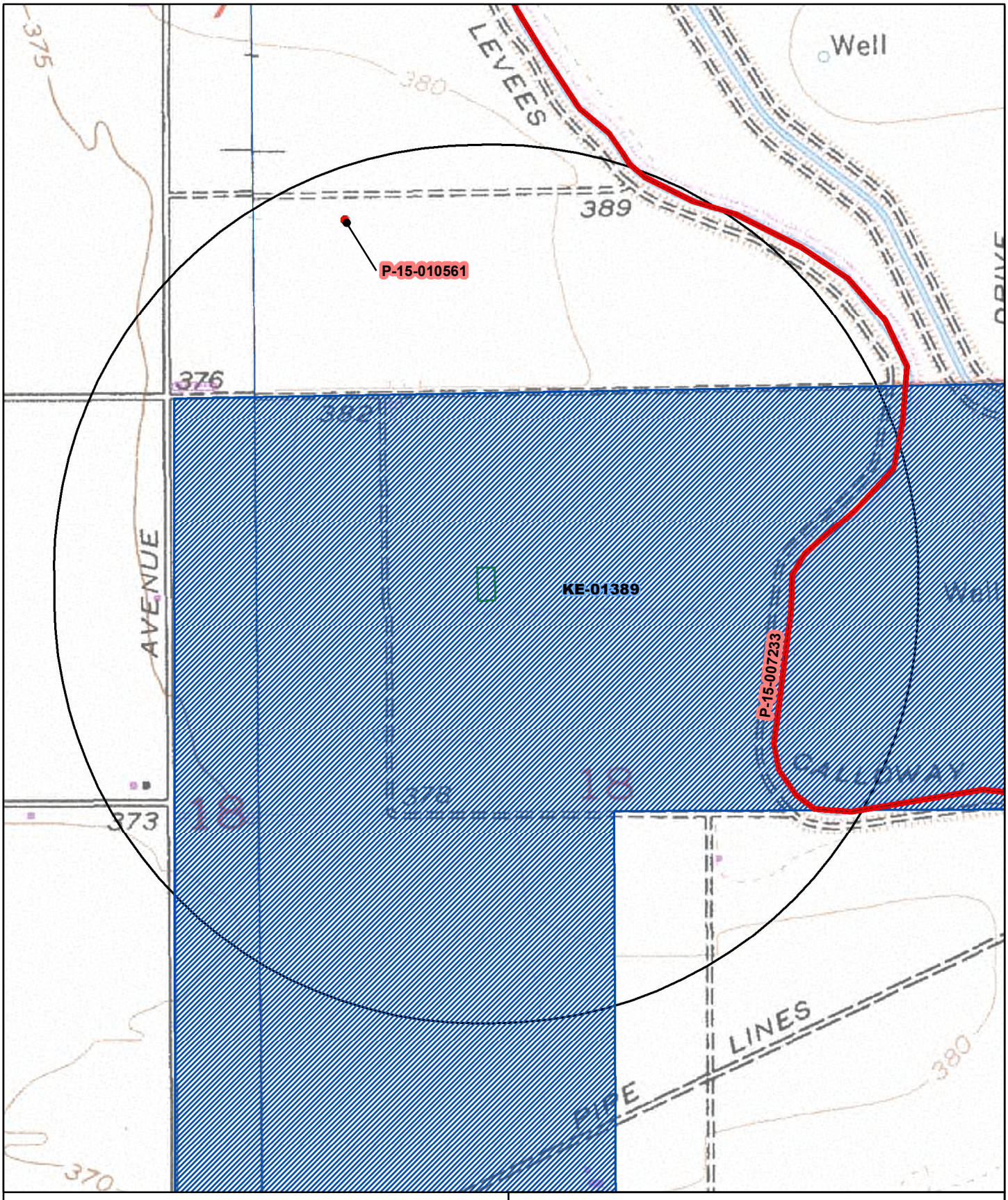
SSJVIC Record Search 23-016

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
KE-00962	NADB-R - 1141471; Submitter - CRF-88-19	1988	Pruett, Catherine Lewis and Acker, Karen	Environmental Impact Evaluation: an Archaeological Survey of 240 Acres Located on Jewetta Avenue and Hageman Road, Rosedale	Cultural Resource Facilitiy, California State University, Bakersfield	
KE-01389		1990	Schiffman, Robert A.	Archaeological Investigation of Section 18, Township 29S., R27E. Kern County, California	Bakersfield College	
KE-01399		1991	Schiffman, Robert A.	Archaeological Investigation of 275 Acre Santa Fe Ranch and 80 Acre Rosedale Ranch Sections 13 & 14, Township 29S., Range 26E. Kern County, California	Bakersfield College	
KE-01431		1992	Schiffman, Robert A.	Archaeological Investigation of Parcel Map #9826 Section 12 T.29S.; R.26E. Kern County, California	Bakersfield College	
KE-01819		1991	Yohe II, Robert M.	Archaeological Assessment of 200 Acres near Rosedale, Kern County, California	Cultural Resource Facility, California State University, Bakersfield	
KE-02488	Submitter - 00-18; Submitter - PR Job 1473	2001	Fleagle, Dorothy	Addendum: A Cultural Resources Assessment for Parcel Map Number 10751, Approximately 372 Acres in Northwest Bakersfield, Kern County, California	Three Girls and a Shovel	15-010561
KE-02716		2002	Schiffman, Robert A.	Archaeological Investigation for Tentative Tract 6153, Kern County, California	Individual Consultants	
KE-02807	Caltrans - 06-KER-58-R35.4/R52.3; Submitter - Contract No. 06G171	1993	Herbert, Rand F.	Historic Resource Evaluation Report: Tier 1, Route Adoption on Route 58 Between I-5 and State Route 99	JRP Historical Consulting Services	
KE-03677		2009	Hudlow, Scott	A Phase I Cultural Resource Survey for Vesting Tentative Parcel Map 11788, City of Bakersfield, California	Hudlow Cultural Resource Associates (Bakersfield)	

Resource List

SSJVIC Record Search 23-016

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-15-007233		Resource Name - Calloway Canal; Resource Name - JKE-022; OTIS Resource Number - 503607; OHP Property Number - 110729	Structure	Historic	HP20	1996 (Clarence Caesar); 2009 (Steven J. Melvin, Rebecca Flores, JRP Historical Consulting, LLC.); 2009 (Polly S. Allen, Toni Webb, JRP Historical Consulting, LLC.); 2016 (Jennifer Gorman, ASM Affiliates, Inc.)	KE-05044
P-15-010561		Resource Name - IF-1	Other	Prehistoric	AP02	2009 (Dorothy Fleagle, Three Girls and a Shovel, LLC.)	KE-02488



May depict confidential cultural resource locations.
Do not distribute.

0 0.05 0.1 0.2 Miles

0 0.075 0.15 0.3 Kilometers

N

Project Area

Record Search radius

SSJV Information Center Record Search 23-016
Requester: David Brunzell, BCR Consulting LLC
Project Name: Vaughn Water Company Well Site Project (DJA2202)
USGS 7.5' Quad(s): Oildale
County: Kern

APPENDIX B

PROJECT PHOTOGRAPHS

Photo 1: Overview of Project Site

Photo 2: Overview of Project Site

Photo 3: Overview of Project Site

Photo 4: Soil Within Project Site

Photo 5: Overview of Project Site

Photo 6: Overview of Project Site

APPENDIX C

NATIVE AMERICAN HERITAGE COMMISSION SACRED LANDS FILE SEARCH

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
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California 95691
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nahc@nahc.ca.gov
NAHC.ca.gov

January 19, 2023

David Brunzell
BCR Consulting LLC

Via Email to: bcrllc2008@gmail.com

Re: Vaughn Water Company Well Site Project (DJA2202), Kern County

Dear Mr. Brunzell:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Cameron.vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Kern County
1/19/2023

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This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Vaughn Water Company Well Site Project (DJA2202), Kern County.

APPENDIX D

PALEONTOLOGICAL RESOURCES OVERVIEW

WESTERN SCIENCE CENTER

January 20th, 2023

BCR Consulting, LLC
Doug Kazmier
505 W. 8th St.
Claremont, CA 91711

Dear Mr. Kazmier,

This letter presents the results of a record search conducted for the Vaughn Water Company Well Site Project located in the city of Bakersfield, Kern County, CA. The project site is located south of Wind Blossom Avenue, east of Polar Drive, and west of Verdugo Lane, on Township 29 South, Range 27 East, Section 18 on the *Oildale CA* USGS 7.5 minute quadrangle.

The geologic units underlying the project area are mapped primarily as Plesitocene nonmarine deposits (Smith, 1964). Pleistocene units are considered to be paleontologically sensitive. The Western Science Center does not have localities within the project area or within a 1 mile radius. However, this is likely due to the project area's distance from the museum and should not be taken as indicative of paleontological sensitivity; other repositories may have localities in the area.

Any fossils recovered from the Vaughn Water Company Well Site Project would be scientifically significant. Excavation activity associated with development of the project area could impact the paleontologically sensitive Pleistocene units close to the project area, and due to this proximity it is the recommendation of the Western Science Center that a paleontological resource mitigation program be put in place to monitor, salvage, and curate any recovered fossils associated with the current study area.

If you have any questions, or would like further information, please feel free to contact me at bstoneburg@westerncentermuseum.org.

Sincerely,

Brittney Elizabeth Stoneburg, MSc
Collections Manager

Vaughn Water Company Well Site Project

project area + 1 mile radius

Legend

- 1 Mile Radius
- Q: Quaternary alluvium and marine deposits (Pliocene to Holocene)
- Vaughn Water Company Well Site Project

Snow Rd
Norris Elementary School
Jewetta Ave
HAMPTON WOODS
AVALON
Olive Dr
Frontier High School
MADISON GROVE
Calloway Dr
EAGLE RANCH
Norris Rd
Albertsons
Olive Dr
Walmart Neighborhood Market
Allen Rd
Old Farm Rd
Livingston Dr
CRYSTAL RANCH
29S 26E
RIVERLAKES
Links at Riverlakes Ranch Golf Course
Polo Park
WESTLAKES
Verdugo Ln
SAN TROPE
McDonald's
Hageman Rd
Fruitvale Ave
WinCo Foods
Coffee Rd
Turner's Outdoorsman-West...
POLO GROUNDS
Raising Cane's Chicken Fingers
Survey
Google Earth
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1 mi

VAUGHN WATER COMPANY
MEADOW CREEK WELL
WATER SUPPLY AND TREATMENT FACILITY

EXHIBIT F
"NATIVE AMERICAN HERITAGE COMMISSION – CULTURAL RESOURCES RESEARCH"

NATIVE AMERICAN HERITAGE COMMISSION

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NAHC.ca.gov

January 19, 2023

David Brunzell
BCR Consulting LLC

Via Email to: bcrllc2008@gmail.com

Re: Vaughn Water Company Well Site Project (DJA2202), Kern County

Dear Mr. Brunzell:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

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Sincerely,

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Cameron Vela
Cultural Resources Analyst

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This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Vaughn Water Company Well Site Project (DJA2202), Kern County.

VAUGHN WATER COMPANY
MEADOW CREEK WELL
WATER SUPPLY AND TREATMENT FACILITY

EXHIBIT G
"NATIONAL COOOPERATIVE SOIL SURVEY – WEB SOIL SURVEY MAP"

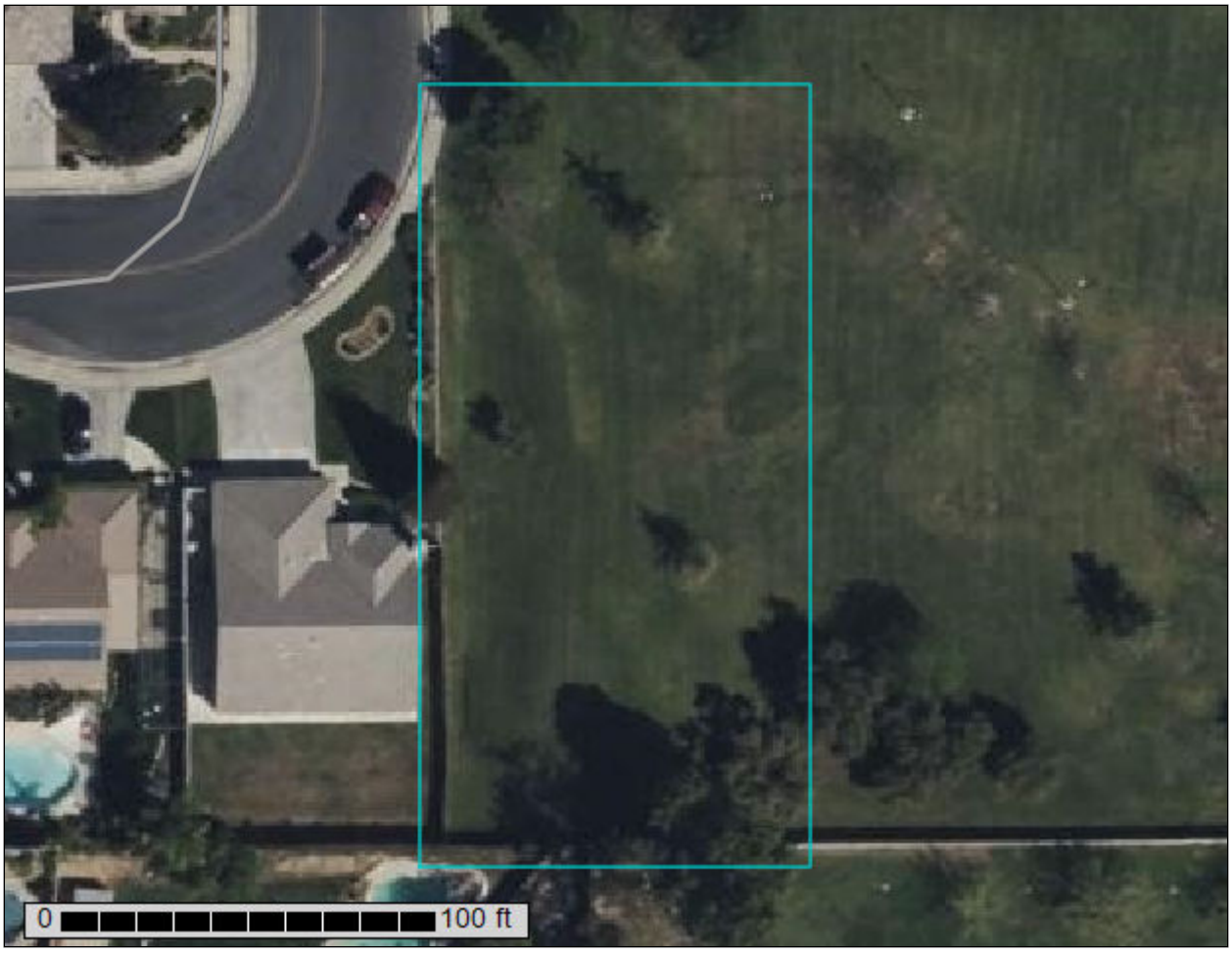
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Kern County, California, Northwestern Part



December 5, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:24,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 350 700 1400 2100

Feet: 0 1000 2000 4000 6000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kern County, California, Northwestern Part
Survey Area Data: Version 15, Sep 1, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 12, 2022—Mar 22, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
174	Kimberlina fine sandy loam, 0 to 2 percent slopes MLRA 17	0.5	100.0%
Totals for Area of Interest		**0.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Kern County, California, Northwestern Part

174—Kimberlina fine sandy loam, 0 to 2 percent slopes MLRA 17

Map Unit Setting

National map unit symbol: 2ss96
Elevation: 120 to 1,160 feet
Mean annual precipitation: 4 to 8 inches
Mean annual air temperature: 63 to 64 degrees F
Frost-free period: 240 to 300 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Kimberlina and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimberlina

Setting

Landform: Alluvial fans
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous and sedimentary rock

Typical profile

Ap - 0 to 9 inches: fine sandy loam
C - 9 to 45 inches: fine sandy loam
2C - 45 to 71 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: RareNone
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to slightly saline (0.3 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R017XY906CA - Non-Alkali San Joaquin Valley Desert
Hydric soil rating: No

Minor Components

Wasco

Percent of map unit: 7 percent
Landform: Alluvial fans
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Milham

Percent of map unit: 6 percent
Landform: Alluvial fans
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Unnamed

Percent of map unit: 2 percent
Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

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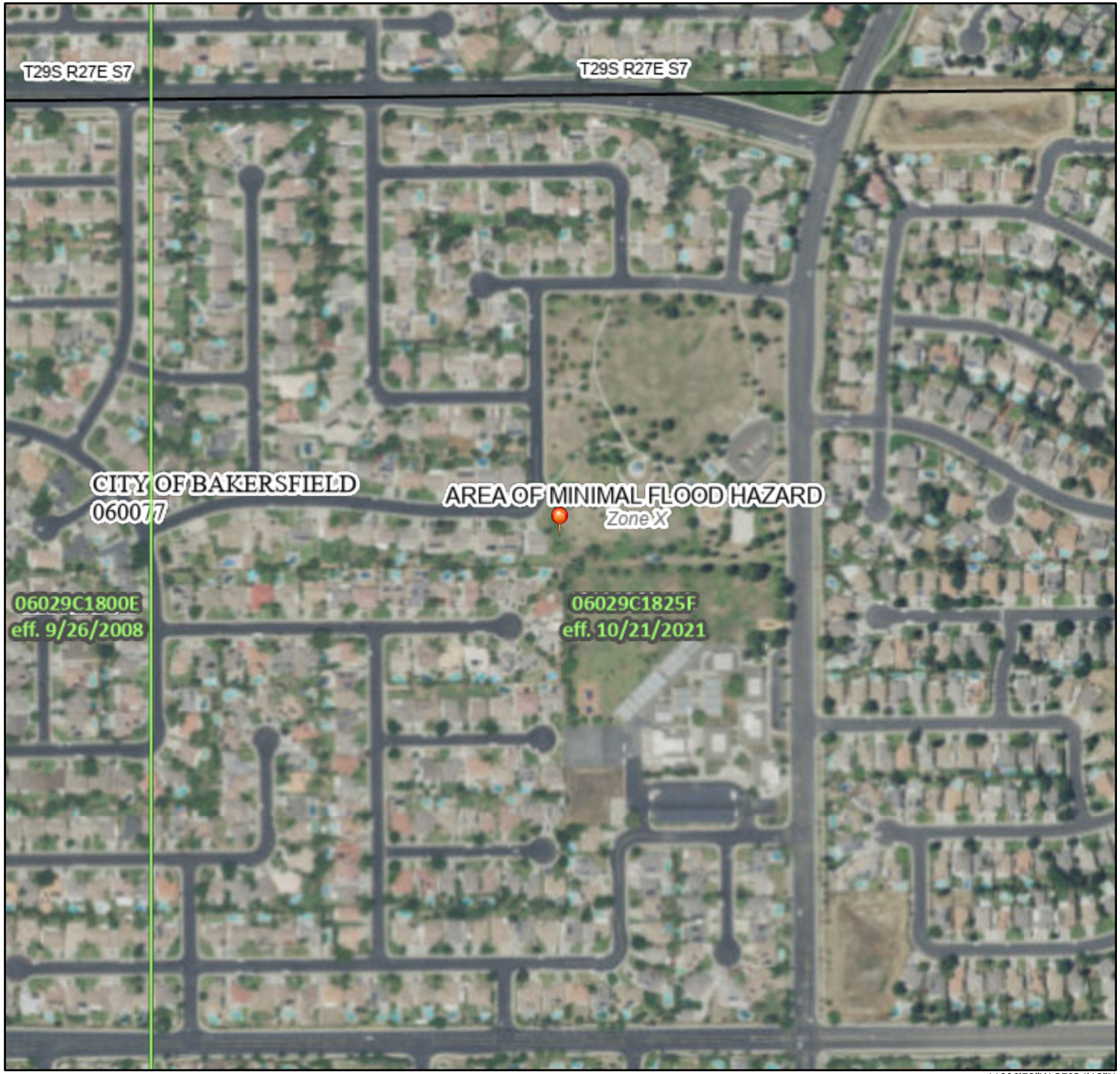
VAUGHN WATER COMPANY
MEADOW CREEK WELL
WATER SUPPLY AND TREATMENT FACILITY

EXHIBIT H
"FLOOD INSURANCE RATE MAP"

National Flood Hazard Layer FIRMette

FEMA

119°7'35"W 35°24'47"N



119°6'58"W 35°24'18"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/2/2022 at 7:28 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

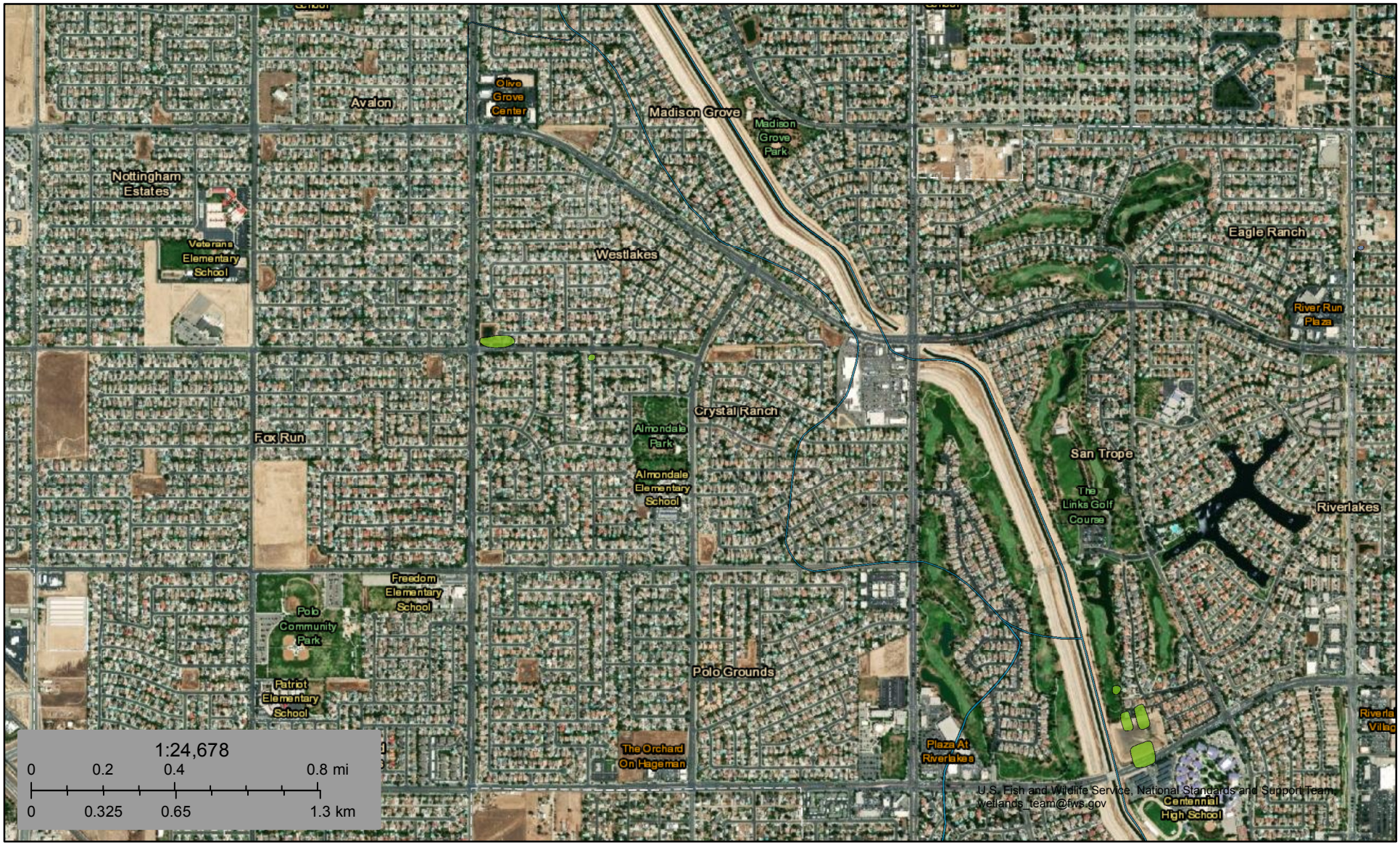
VAUGHN WATER COMPANY
MEADOW CREEK WELL
WATER SUPPLY AND TREATMENT FACILITY

EXHIBIT I
"U.S. FISH AND WILDLIFE SERVICE – NATIONAL WETLANDS INVENTORY MAP"

U.S. Fish and Wildlife Service

National Wetlands Inventory

VWC New Municipal Water Well Site



December 2, 2022

Wetlands

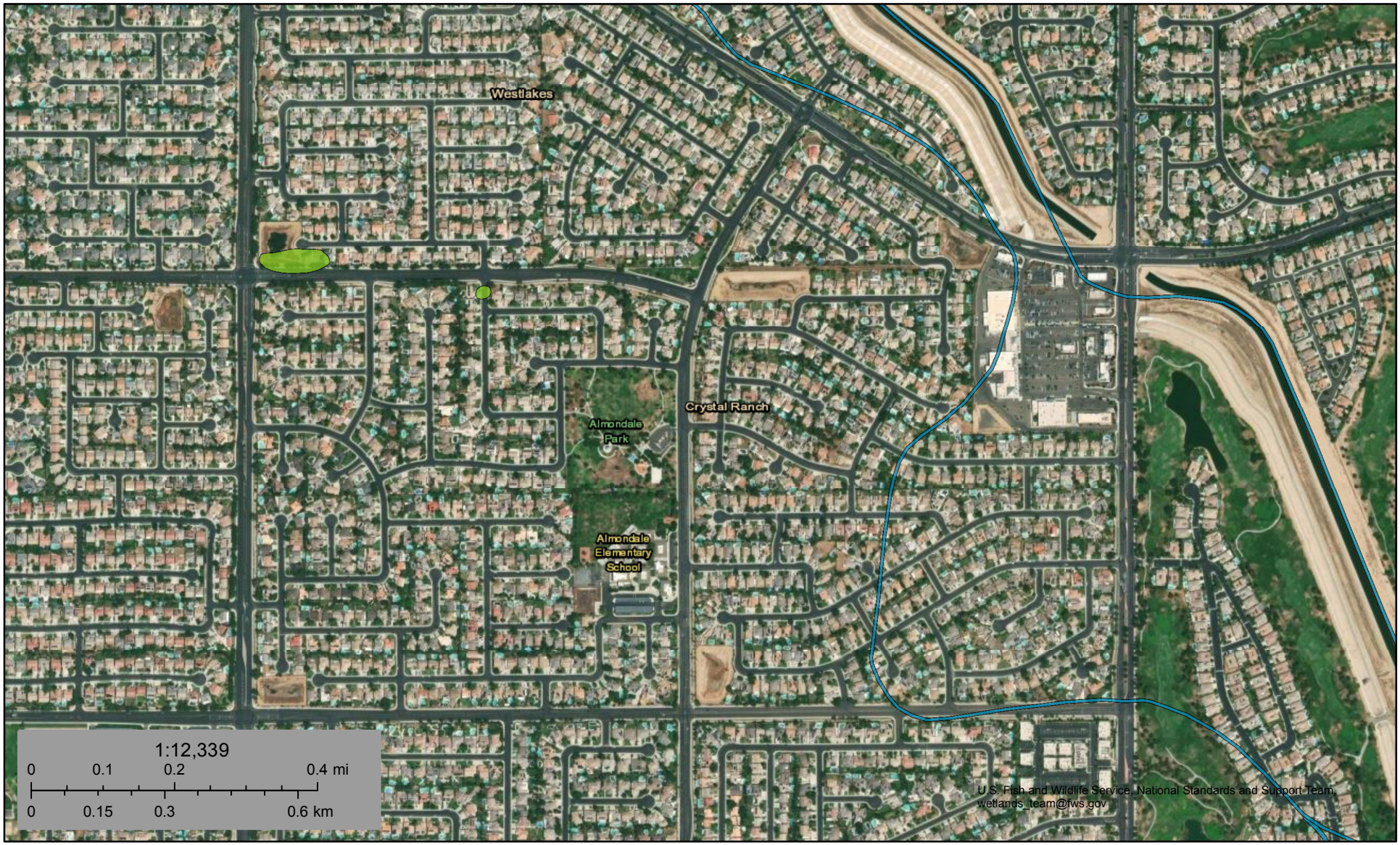
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

U.S. Fish and Wildlife Service

National Wetlands Inventory

VWC New Municipal Water Well Site



December 2, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
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- Lake
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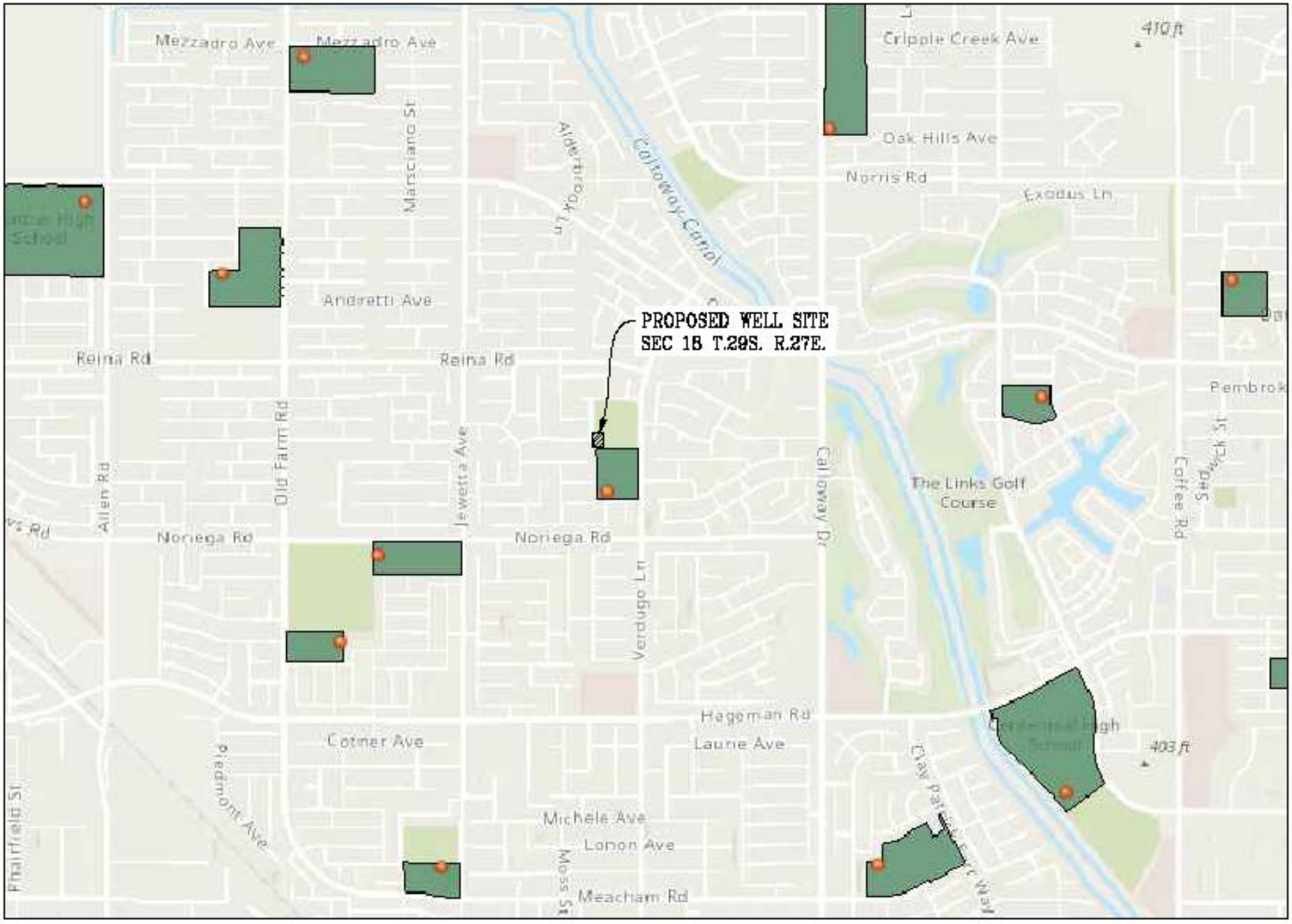
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

VAUGHN WATER COMPANY
MEADOW CREEK WELL
WATER SUPPLY AND TREATMENT FACILITY

EXHIBIT J
"MAP OF SCHOOLS IN PROJECT VICINITY"



SCHOOL CAMPUS MAP

NEW MUNICIPAL WATER WELL PROJECT
VAUGHN WATER COMPANY

0 1000' 2000'

DEE JASPAR & ASSOCIATES, INC.
CIVIL • ENGINEERS
PORTERVILLE, CALIFORNIA
BAKERSFIELD, CALIFORNIA

VAUGHN WATER COMPANY
MEADOW CREEK WELL
WATER SUPPLY AND TREATMENT FACILITY

EXHIBIT K
"LIST OF HAZARDOUS MATERIALS SITES PER CALIFORNIA DEPT. OF TOXIC SUBSTANCES CONTROL"

Dee Jaspar Associates, Inc.
2730 Unicorn Road, Bldg. A
Bakersfield, CA 93308

List of Hazardous Waste and Substances Site List per
California Dept. of Toxic Substances Control

Current as of December 2, 2022

EPA ID	PROJECT NAME	PERMIT EFFECTIVE DATE	PERMIT EXPIRATION DATE	PERMIT TYPE	ADDRESS	CITY	ZIP CODE	COUNTY
CAD093245645	DUCOMMUN AEROSTRUCTURES	10/02/2022 (PC)	10/02/2032 (PC)	RCRA	4001 EL MIRAGE RD	ADELANTO	923010000	SAN BERNARDINO
CAD030584502	GENERAL ELECTRIC INTERNATIONAL INC	06/22/2016 (OP)	06/21/2026 (OP)	RCRA	3601 E LA PALMA AVE	ANAHEIM	928060000	ORANGE
CAD088504881	KINSBURSKY BROTHERS SUPPLY INC	06/15/2011 (OP)	06/14/2021 (OP)	RCRA	1314 N ANAHEIM BLVD	ANAHEIM	928010000	ORANGE
CAD077966349	PACIFIC GAS & ELECTRIC/ DIABLO CANYON	09/26/2018 (OP)	09/26/2028 (OP)	RCRA	3890 AVILA BEACH	AVILA BEACH	934240000	SAN LUIS OBISPO
CAD008302903	VEOLIA ES TECHNICAL SOLUTIONS LLC AZUSA	03/31/2011 (OP)	03/31/2021 (OP)	RCRA	1704 W 1ST ST	AZUSA	917023203	LOS ANGELES
CAL000282598	HERITAGE-CRYSTAL CLEAN LLC	07/28/2015 (OP)	07/28/2025 (OP)	STATE ONLY	1620 E BRUNDAGE LN	BAKERSFIELD	93307	KERN
CAD050746775	SQUARE D COMPANY	01/21/2021 (PC)	01/20/2031 (PC)	RCRA	1060 E 3RD ST	BEAUMONT	922233020	RIVERSIDE
CA4890008986	LAWRENCE BERKELEY NATIONAL LABORATORY	07/31/2007 (OP)	12/21/2016 (OP)	RCRA	1 CYCLOTRON RD	BERKELEY	947200000	ALAMEDA
CAD980675276	CLEAN HARBORS BUTTONWILLOW LLC	04/06/1996 (OP/PC)	04/06/2006 (OP/PC)	RCRA	2500 WEST LOKERN RD	BUTTONWILLOW	932060000	KERN
CA1800090010	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION SANTA SUSANA FIELD LAB	05/11/1995 (PC)	05/11/2005 (PC)	RCRA	5800 WOOLSEY CANYON RD	CANOGA PARK	91304	LOS ANGELES
CAD980881676	PHILLIPS 66 CO LOS ANGELES REFINERY CARSON PLANT	08/15/2019 (PC)	08/14/2029 (PC)	RCRA	1520 E SEPULVEDA BLVD	CARSON	907450000	LOS ANGELES
CAD077227049	TESORO CARSON REFINERY	11/16/2015 (PC)	11/15/2025 (PC)	RCRA	1801 E SEPULVEDA BLVD	CARSON	907496210	LOS ANGELES
CAL000393680	ASBURY ENVIRONMENTAL SERVICES - CERES DBA WORLD OIL ENVIRONMENTAL SERV	06/13/2016 (OP)	06/13/2026 (OP)	STANDARDIZED	1920 MORGAN RD STE AES	CERES	95358	STANISLAUS
CAL000827844	WORLD OIL ENVIRONMENTAL SERVICES	05/18/2021 (OP)	05/17/2031 (OP)	STANDARDIZED	2549 SCOTT AVE	CHICO	959287188	BUTTE
CAD980694103	WORLD OIL ENVIRONMENTAL SERVICES - CHICO II	01/20/2022 (OP)	01/19/2032 (OP)	STANDARDIZED	1618 W 5TH ST	CHICO	959284716	BUTTE
CA2170023152	NAVAL AIR WEAPONS STATION CHINA LAKE	07/13/2018 (OP)	07/12/2028 (OP)	RCRA	1 ADMINISTRATION CIR	CHINA LAKE	935556104	KERN
CAD066233966	QUEMETCO INC	09/15/2005 (OP/PC)	09/15/2015 (OP/PC)	RCRA	720 S 7TH AVE	CITY OF INDUSTRY	917463124	LOS ANGELES
CAT080010606	BIG BLUE HILLS PESTICIDE CONT DISPOSAL	06/06/2019 (PC)	06/05/2029 (PC)	RCRA	10 MILES NORTH OF COALINGA	COALINGA	932100000	FRESNO
CAT080013352	DEMENNO-KERDOON	01/31/2017 (OP)	01/30/2027 (OP)	RCRA	2000 N ALAMEDA ST	COMPTON	902220000	LOS ANGELES
CAD982446874	SAFETY-KLEEN OF CALIFORNIA INC - DAVIS	11/06/2012 (OP)	11/06/2022 (OP)	STANDARDIZED	44561 ROAD 30-B	DAVIS	956160000	YOLO
CAT080012602	ADVANCED ENVIRONMENTAL, INC., DBA WORLD OIL ENVIRONMENTAL SERVICES - DIXON	02/20/2021 (OP)	02/19/2031 (OP)	STANDARDIZED	7300 CHEVRON WAY	DIXON	956200000	SOLANO
CA1570024504	EDWARDS AIR FORCE BASE	10/20/2021 (OP)	09/20/2031 (OP)	RCRA	5 E POPSON AVE	EDWARDS	935241130	KERN
CAD008336901	CHEVRON EL SEGUNDO REFINERY	05/17/2007 (OP/PC)	05/17/2017 (OP/PC)	RCRA	324 W EL SEGUNDO BLVD	EL SEGUNDO	902450000	LOS ANGELES
CAT080010283	WESTSIDE DISPOSAL FACILITY	06/12/2017 (PC)	06/11/2027 (PC)	RCRA	26251 HIGHWAY 33	FELLOWS	93224	KERN
CAT080025711	ADVANCED ENVIRONMENTAL INC DBA WORLD OIL ENVIRONMENTAL SERVICES	05/11/2009 (OP), 12/18/2020 (OP)	10/23/2017 (OP), 12/17/2030 (OP)	STANDARDIZED	13579 WHITTRAM AVE	FONTANA	923350000	SAN BERNARDINO
CAD008274938	KAISER VENTURES INC	04/08/2016 (PC)	04/07/2026 (PC)	RCRA	9400 CHERRY AVE	FONTANA	92335	SAN BERNARDINO
CAL930256136	WORLD OIL ENVIRONMENTAL SERVICES - FORTUNA	02/10/2022 (OP)	01/11/2032 (OP)	STANDARDIZED	200 DINSMORE DR	FORTUNA	955400000	HUMBOLDT
CAD982446882	SAFETY-KLEEN OF CALIFORNIA INC - FRESNO	01/22/2022 (OP), 11/24/2008 (OP)	11/23/2018 (OP), 12/23/2031 (OP)	STANDARDIZED	4139 N VALENTINE AVE	FRESNO	937224147	FRESNO
CAD097465132	TP INDUSTRIAL INC	11/11/2010 (PC)	11/10/2020 (PC)	RCRA	525 E ALONDRA BLVD	GARDENA	902480000	LOS ANGELES
CAD982411993	AERC ACQUISITION CORP DBA AERC RECYCLING SOLUTIONS, A CLEAN EARTH COMPANY	11/23/2020 (OP)	11/23/2030 (OP)	STANDARDIZED	30677 HUNTWOOD AVE	HAYWARD	94544	ALAMEDA
CAD990665432	JOHN SMITH ROAD LANDFILL	08/30/2017 (PC)	08/29/2027 (PC)	RCRA	2650 JOHN SMITH RD	HOLLISTER	950239711	SAN BENITO
CAD009220898	PACIFIC SCIENTIFIC ENERGETIC MATERIALS CO	08/09/2021 (OP)	08/09/2031 (OP)	RCRA	3601 UNION RD	HOLLISTER	950230000	SAN BENITO
CAD008364432	RHO-CHEM LLC	08/28/2008 (OP)	08/27/2018 (OP)	RCRA	425 ISIS AVE	INGLEWOOD	903010000	LOS ANGELES
CAL000330453	AGRITEC INT DBA CLEANTECH ENVIRONMENTAL INC	02/02/2015 (OP)	02/01/2025 (OP)	STATE ONLY	5820 MARTIN RD	IRWINDALE	91706	LOS ANGELES
CAT000646117	CHEMICAL WASTE MANAGEMENT INC KETTLEMAN	06/16/2003 (OP/PC)	06/13/2013 (OP/PC)	RCRA	KETTLEMAN HILLS LDFL HIGHWAY 41	KETTLEMAN CITY	932100000	KINGS
CA2890012584	LAWRENCE LIVERMORE NATIONAL LABORATORY	10/31/2022 (OP), 11/19/1999 (OP)	10/31/2032 (OP), 11/19/2009 (OP)	RCRA	7000 EAST AVE	LIVERMORE	945500000	ALAMEDA
CA2890012923	SANDIA NATIONAL LABORATORIES	10/25/2018 (OP)	10/25/2028 (OP)	RCRA	7011 EAST AVE	LIVERMORE	945500000	ALAMEDA
CAD028409019	CROSBY & OVERTON	08/22/2014 (OP)	08/21/2024 (OP)	RCRA	1630 W 17TH ST	LONG BEACH	908130000	LOS ANGELES
CAL000098454	A & A FEROS NON FEROS METAL	05/23/2017 (OP)	05/23/2027 (OP)	STANDARDIZED	640 S HILL ST #743	LOS ANGELES	900140000	LOS ANGELES

CAD050806850	EMERALD TRANSFORMER LOS ANGELES, LLC	01/27/2011 (OP), 10/10/2022 (OP)	01/26/2021 (OP), 10/09/2032 (OP)	RCRA	5756 ALBA ST	LOS ANGELES	900580000	LOS ANGELES
CAD099452708	INDUSTRIAL SERVICE OIL CO INC	06/25/2008 (OP)	06/24/2018 (OP)	RCRA	1700 S SOTO ST	LOS ANGELES	900230000	LOS ANGELES
CAD008252405	PACIFIC RESOURCE RECOVERY SERVICES INC	06/27/2012 (OP)	06/26/2022 (OP)	RCRA	3150 E PICO BLVD	LOS ANGELES	900230000	LOS ANGELES
CAT000613935	SAFETY-KLEEN SYSTEMS INC	10/24/2020 (OP)	10/24/2030 (OP)	RCRA	2918 WORTHEN AVE	LOS ANGELES	900392829	LOS ANGELES
CAD981422017	SOUTHERN CALIFORNIA GAS CO	06/30/2018 (OP)	06/30/2028 (OP)	RCRA	2424 E OLYMPIC BLVD	LOS ANGELES	900210000	LOS ANGELES
CAD097030993	US ECOLOGY VERNON INC	07/23/2017 (OP)	07/22/2027 (OP)	RCRA	5375 S BOYLE AVE	LOS ANGELES	900580000	LOS ANGELES
CAD041835695	ACME FILL CORPORATION	06/26/2015 (PC)	06/25/2025 (PC)	RCRA	950 WATERBIRD WAY	MARTINEZ	945530000	CONTRA COSTA
CAD009164021	MARTINEZ REFINING COMPANY LLC	05/21/2008 (OP)	05/20/2018 (OP)	RCRA	3485 PACHECO BLVD	MARTINEZ	94553	CONTRA COSTA
CAD000072751	TESORO MARTINEZ REFINERY	12/19/2021 (PC)	12/18/2031 (PC)	RCRA	150 SOLANO WAY	MARTINEZ	94553	CONTRA COSTA
CAD074644659	HONEYWELL INTERNATIONAL INC FORMER BARON-BLAKESLEE	11/22/2020 (PC)	11/21/2030 (PC)	RCRA	8333 ENTERPRISE DR	NEWARK	945600000	ALAMEDA
CAD980887418	SAFETY-KLEEN OF CALIFORNIA INC	09/03/2021 (OP)	09/02/2031 (OP)	RCRA	6880 SMITH AVE	NEWARK	945600000	ALAMEDA
CAD008383127	TFX AVIATION INC	07/23/2016 (PC)	07/23/2026 (PC)	RCRA	3085 OLD CONEJO RD	NEWBURY PARK	913200000	VENTURA
CAD009151671	CHEMOURS OAKLEY	10/26/2022 (PC)	10/26/2032 (PC)	RCRA	6000 BRIDGEHEAD RD	OAKLEY	945612940	CONTRA COSTA
CAR000156125	LIGHTING RESOURCES LLC			STANDARDIZED	805 FRANCIS ST	ONTARIO	917610000	SAN BERNARDINO
CAL000102751	WORLD OIL - SAN JOAQUIN LLC	01/10/2020 (OP)	01/10/2030 (OP)	STANDARDIZED	14287 E MANNING AVE	PARLIER	936489744	FRESNO
CAD059277137	CENTRAL WIRE INC	06/24/2019 (PC)	06/23/2029 (PC)	RCRA	2500 SOUTH A ST	PERRIS	925709317	RIVERSIDE
CAT000625137	SOUTHERN CALIFORNIA GAS CO	08/01/2019 (OP)	07/31/2029 (OP)	RCRA	8101 S ROSEMEAD BLVD	PICO RIVERA	90660	LOS ANGELES
CAD076528678	CORTEVA AGRISCIENCE - PITTSBURG OPERATIONS	12/27/2019 (PC), 04/28/2003 (OP), 10/31/2018 (OP)	12/26/2029 (PC), 04/27/2013 (OP), 10/30/2028 (OP)	RCRA	901 LOVERIDGE RD	PITTSBURG	945650000	CONTRA COSTA
CAD009150194	USS-POSCO INDUSTRIES	04/21/2014 (PC)	04/21/2024 (PC)	RCRA, STATE ONLY	900 LOVERIDGE RD	PITTSBURG	945650000	CONTRA COSTA
CAD000030494	AEROJET ROCKETDYNE INC	05/27/2021 (PC)	05/27/2031 (PC)	RCRA	US HWY 50 & AEROJET RD	RANCHO CORDOVA	958136000	SACRAMENTO
CAD982439895	CLEAN HARBORS ENVIRONMENTAL SERVICES INC PORT OF REDWOOD CITY	07/29/2016 (OP)	07/29/2026 (OP)	STANDARDIZED	695 SEAPORT BLVD	REDWOOD CITY	940630000	SAN MATEO
CAD982444481	HAZMAT TSDF INC FORMER FILTER RECYCLING SERVICES INC	09/10/2022 (OP)	08/12/2032 (OP)	STANDARDIZED	180 W MONTE AVE	RIALTO	923160000	SAN BERNARDINO
CAD043237486	CHEVRON CHEMICAL CO	07/23/2010 (OP)	07/23/2020 (OP)	RCRA	940 HENSLEY ST	RICHMOND	948012106	CONTRA COSTA
CAD009114919	CHEVRON USA INC RICHMOND REFINERY	06/23/2017 (PC), 10/25/2020 (OP)	06/23/2027 (PC), 10/24/2030 (OP)	RCRA	841 CHEVRON WAY	RICHMOND	94801	CONTRA COSTA
CAT080014079	VEOLIA ES TECHNICAL SOLUTIONS LLC RICHMOND	10/08/2014 (OP)	10/08/2024 (OP)	RCRA	1125 HENSLEY ST	RICHMOND	948012118	CONTRA COSTA
CAD041844002	WEST COUNTY LANDFILL INC	05/26/2022 (PC)	05/26/2032 (PC)	RCRA	PARR BLVD & GARDEN TRACT RD	RICHMOND	948010000	CONTRA COSTA
CAL000190816	CALIFORNIA OIL TRANSFER LLC	12/12/2017 (OP)	12/11/2027 (OP)	STANDARDIZED	5300 CLAUS RD	RIVERBANK	953670000	STANISLAUS
CAD009108705	PHILLIPS 66 COMPANY - SAN FRANCISCO REFINERY	01/09/2017 (PC), 02/21/2012 (PC)	01/08/2027 (PC), 02/20/2022 (PC)	RCRA	1380 SAN PABLO AVE	RODEO	945720000	CONTRA COSTA
CA0000084517	SAFETY-KLEEN SYSTEMS,INC.	07/30/2018 (OP)	07/30/2028 (OP)	RCRA	6000 88TH ST	SACRAMENTO	958280000	SACRAMENTO
CAD000630921	SOUTHERN CALIFORNIA EDISON SAN ONOFRE PLANT	05/23/2016 (OP)	05/23/2026 (OP)	RCRA	5000 OLD PACIFIC HWY	SAN CLEMENTE	92058	ORANGE
CA7170090016	NAVAL AIR STATION NORTH ISLAND (NASNI) HAZARDOUS WASTE FACILITY COMPLEX	03/26/2022 (OP)	03/26/2032 (OP)	RCRA	BUILDING 1606	SAN DIEGO	921350000	SAN DIEGO
CAR000019430	NAVAL BASE CORONADO MIXED WASTE STORAGE FACILITY	02/03/2015 (OP)	02/02/2025 (OP)	RCRA	NASNI BLDG 74	SAN DIEGO	921350000	SAN DIEGO
CA6170024289	NAVAL STATION SAN DIEGO	07/30/2018 (OP)	07/29/2028 (OP)	RCRA	BLDG 3458 NAVAL STATION	SAN DIEGO	921360000	SAN DIEGO
CAD980636682	SAN DIEGO GAS & ELECTRIC COMPANY	07/03/2012 (OP)	07/03/2022 (OP)	STANDARDIZED	5488 OVERLAND AVE	SAN DIEGO	921231205	SAN DIEGO
CAD981168107	SAN DIEGO GAS & ELECTRIC MIRAMAR	06/20/2018 (OP)	06/19/2028 (OP)	RCRA	6875 CONSOLIDATED WAY SD1373	SAN DIEGO	921210000	SAN DIEGO
CAD008314908	SOLAR TURBINES INC	05/06/2016 (PC)	05/06/2026 (PC)	RCRA	2200 PACIFIC HWY	SAN DIEGO	921011745	SAN DIEGO
CAD059494310	CLEAN HARBORS SAN JOSE LLC	06/18/2021 (OP)	06/17/2031 (OP)	RCRA	1021 BERRYESSA RD	SAN JOSE	951330000	SANTA CLARA
CAD069124717	GLENCORE RECYCLING LLC	05/06/2012 (OP)	05/06/2022 (OP)	STANDARDIZED	1695 MONTEREY HWY	SAN JOSE	951120000	SANTA CLARA
CAD001705235	RAYTHEON TECHNOLOGIES CORPORATION, PRATT & WHITNEY DIVISION	08/02/2018 (PC)	08/02/2028 (PC)	RCRA	600 METCALF RD	SAN JOSE	951380000	SANTA CLARA

CAR000128793	WESTERN DIGITAL TECHNOLOGIES INC	05/24/2022 (OP)	05/25/2032 (OP)	RCRA	5601 GREAT OAKS PKWY	SAN JOSE	951191003	SANTA CLARA
CAD980888598	WIT SALES AND REFINING	03/24/2016 (OP)	03/23/2026 (OP)	STANDARDIZED	538 PHELAN AVE	SAN JOSE	951120000	SANTA CLARA
CAT000613976	SAFETY-KLEEN SYSTEMS INC	07/27/2019 (OP)	07/26/2029 (OP)	RCRA	2120 S YALE ST	SANTA ANA	927040000	ORANGE
CAD982052797	J&B REFINING DBA J&B ENTERPRISES	05/07/2015 (OP)	05/06/2025 (OP)	STANDARDIZED	1650 RUSSELL AVE	SANTA CLARA	950540000	SANTA CLARA
CAD088838222	BAYSIDE OIL II INC	09/15/2015 (OP)	09/15/2025 (OP)	STANDARDIZED	210 ENCINAL ST	SANTA CRUZ	950600000	SANTA CRUZ
CAD060398229	HERAEUS PRECIOUS METALS NORTH AMERICA LLC	10/31/2011 (OP)	10/31/2021 (OP)	STANDARDIZED	15524 CARMENITA RD	SANTA FE SPRINGS	906700000	LOS ANGELES
CAD008488025	PHIBRO-TECH INC	07/29/1991 (OP)	07/29/1996 (OP)	RCRA	8851 DICE RD	SANTA FE SPRINGS	906702515	LOS ANGELES
CAD982446858	SAFETY KLEEN OF CALIFORNIA SANTA MARIA	02/12/2021 (OP)	02/12/2031 (OP)	STANDARDIZED	745 W BETTERAVIA RD	SANTA MARIA	934551247	SANTA BARBARA
CAD093365435	THE BOEING CO-CANOGA PARK	05/11/1995 (PC)	05/11/2005 (PC)	RCRA	WOOLSEY CANYON RD	SIMI VALLEY	930630000	VENTURA
CAD990794133	FORWARD LANDFILL	07/18/2016 (PC)	07/18/2026 (PC)	RCRA	9999 S AUSTIN RD	STOCKTON	95363	SAN JOAQUIN
CAD981429715	KEARNEY-KPF	09/21/2017 (PC)	09/21/2027 (PC)	RCRA	1624 E ALPINE AVE	STOCKTON	952052525	SAN JOAQUIN
CAD030398622	FORMER INTERNATIONAL LIGHT METALS FACILITY	04/08/2013 (PC)	04/07/2023 (PC)	RCRA	19200 S WESTERN AVE	TORRANCE	905011109	LOS ANGELES
CA2890090002	LAWRENCE LIVERMORE NATIONAL LABORATORY - SITE 300	04/27/2017 (PC), 08/07/2017 (OP), 11/08/1997 (OP)	04/27/2027 (PC), 08/07/2027 (OP), 11/06/2007 (OP)	RCRA	CORRAL HOLLOW RD	TRACY	95376	SAN JOAQUIN
CA5570024575	TRAVIS AIR FORCE BASE	12/25/2019 (OP)	12/25/2029 (OP)	RCRA	60 CES/CEA	TRAVIS AFB	945350000	SOLANO
CA4170024414	CALIFORNIA RESOURCES ELK HILLS LLC	06/21/2019 (PC)	06/20/2029 (PC)	STANDARDIZED	28590 HIGHWAY 119	TUPMAN	932760000	KERN
CA9570025149	DEPT OF AIR FORCE VANDENBERG AFB	10/08/2020 (OP)	10/07/2030 (OP)	RCRA	VANDENBERG AFB	VANDENBERG AFB	934360000	SANTA BARBARA
CAT080033681	WORLD OIL TERMINALS - VERNON	10/01/2012 (OP)	09/30/2022 (OP)	RCRA	3650 E 26TH ST	VERNON	90058	LOS ANGELES
CAD980813950	CRANE'S WASTE OIL INC	09/30/2009 (OP)	09/29/2019 (OP)	STANDARDIZED	16095 HIGHWAY 178	WELDON	932839741	KERN
CAD044003556	RAMOS ENVIRONMENTAL SERVICES	04/20/2016 (OP)	04/19/2026 (OP)	STANDARDIZED	1515 S RIVER RD	WEST SACRAMENTO	956910000	YOLO
CAD000633164	CLEAN HARBORS WESTMORLAND LLC	05/02/1994 (OP/PC)	05/02/2004 (OP/PC)	RCRA	5295 SOUTH GARVEY ROAD	WESTMORLAND	922810158	IMPERIAL
CAD044429835	CLEAN HARBORS WILMINGTON LLC	09/15/2011 (OP)	09/15/2021 (OP)	RCRA	1737 E DENNI ST	WILMINGTON	907440000	LOS ANGELES
CAD008237679	PHILLIPS 66 CO LOS ANGELES REFINERY - WILMINGTON PLANT	10/31/2021 (PC)	10/30/2031 (PC)	RCRA	1660 W ANAHEIM ST	WILMINGTON	907440000	LOS ANGELES
CAD041520644	TESORO REFINING & MARKETING COMPANY-LOS ANGELES REFINERY	12/21/2022 (PC)	12/22/2032 (PC)	RCRA	2101 E PACIFIC COAST HWY	WILMINGTON	907442914	LOS ANGELES

VAUGHN WATER COMPANY
MEADOW CREEK WELL
WATER SUPPLY AND TREATMENT FACILITY

EXHIBIT L
"COMMENT LETTERS AND RESPONSES"

VAUGHN WATER COMPANY
MEADOW CREEK WELL WATER SUPPLY AND TREATMENT FACILITY

MITIGATION MONITORING AND REPORTING PLAN

MAY 2023

PREFACE

Section 21081 of the California Environmental Quality Act (CEQA) requires a Lead Agency to adopt a Mitigation Monitoring and Reporting Plan whenever it approves a project for which measures have been required to mitigate or avoid significant effects on the environment. The purpose of the monitoring and reporting plan is to ensure compliance with the mitigation measures during project implementation.

The Initial Study and Mitigated Negative Declaration concluded that implementation of the project could result in less-than-significant effects on the environment. Mitigation measures were incorporated into the proposed project to further reduce potential impacts or as required as a condition of project approval. This Mitigation Monitoring and Reporting Plan addresses those measures in terms of how and when they will be implemented.

MITIGATION MONITORING AND REPORTING PROGRAM

Environmental Impacts	Mitigation Measures	Responsibility for Implementation	Method of Compliance	Timing of Compliance
Aesthetics				
Potential impacts to aesthetics with a new source of light or glare which could adversely affect day or nighttime views in the area.	1. The project lighting will be less than 20-ft tall and the light fixtures shielded and directed downward to comply with the Kern County "Dark Skies Ordinance". 2. The site will be painted a neutral color (tan), be screened with an 8-ft tall masonry block wall, and have landscaping installed around the perimeter of the site.	Construction Contractor	The Construction Manager will confirm that the lighting, painting, block wall, and site landscaping are constructed and installed as detailed on the plans and specifications.	Prior to project acceptance.

Air Quality				
Potential impacts to air quality: although construction emissions will be temporary and below CEQA thresholds, the proposed project will cause temporary negligible increases in ambient air pollutant concentrations that could increase local human exposure to air contaminants.	1. Implementation of a San Joaquin Air Pollution Control District Control Plan. 2. Dust suppression BMP's that meet requirements set forth in Rule 403.2 Fugitive Dust Control for the San Joaquin Planning Area: a. Use periodic watering for short term stabilization of disturbed areas. b. Use BMP, such as construction exit, to prevent project related track-out onto publicly maintained surfaces. c. All visible dirt track-out or spills onto adjacent roads shall be removed. Track-out or spills will be cleaned up within 24 hours. d. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. e. Reduce non-essential grading activities during high wind conditions.	Construction Contractor	The Construction Manager shall provide necessary training to construction workers regarding emission control measures, will monitor implementation of these measures, and direct corrective actions when and where necessary.	Prior to and during all phases of construction.

Biological Resources				
Potential impacts if construction activities planned during the nesting season for migratory birds that may nest on or near the site (generally February 1 through August 31).	1. Nesting bird surveys to be performed prior to the commencement of ground disturbance for project activities. If nexting birds are present, no new construction or ground disturbance should occur within an appropriate avoidance area for that species until young have fledged, unless otherwise approved and monitored by a qualified onsite biologist.	Qualified Biologist	A Qualified Biologist will be responsible for training construction workers, conducting preconstruction surveys, monitoring buffer areas prior to construction and setting up and taking down any avoidance zones.	Prior to and during all phases of construction.
Potential impacts to environmental species and the general avoidance measures to be followed.	1. Traffic restraints and signs should be established to minimiize temporary disturbances during construction. All construction traffic should be restricted to designated access roads and routes, project site, storage areas, and staging and parking areas. Off-road traffic outside designated project boundaries will be prohibited. A 20 mile-per-hour (32 kilometers-per-hour) speed limit should be observed in all project construction areas, except as otherwise posted on County and City roads. 2. All equipment storage and parking during construction activities should be confined to the on-site construction area or public road right-of-ways.	Construction Contractor	The Construction Manager shall provide necessary training to construction workers regarding best management practices and measures, will monitor implementation of these measures, and direct corrective actions when and where necessary.	Prior to and during all phases of construction.

3. All project construction activities involving excavation or surface disturbance should be limited to daylight hours with the exception of the well drilling activities.

4. Trenches should be inspected for entrapped wildlife each morning, prior to the onset of construction. Before such holes or trenches are filled, they should be thoroughly inspected for entrapped animals. Any animals so discovered shall be allowed to escape voluntarily, without harassment, before construction activities resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.

5. All construction pipes, poles, culverts, hoses or similar structures stored at the construction site for one or more overnight periods should be capped or the ends covered in a way that prevents wildlife entrapment. Unburied pipes laid in trenches overnight should be capped. If a kit fox or other listed species is discovered inside a pipe, that section of pipe will not be moved until the animal leaves on its own, or the USFWS and the CDFW have been consulted.

6. All food-related trash items such as wrappers, cans, bottles and food scraps generated by project activities shall be disposed of in closed containers and removed at least once each week from the site. Deliberate feeding of wildlife is prohibited.

7. To prevent harassment of special-status species, construction personnel should not be allowed to have firearms or pets on the project site.

8. All equipment and work-related materials shall be contained in closed ontainers either in the work area or on vehicles. Loose items (e.g., rags, hose, etc.) should be stored within closed containers or enclosed in vehicles when on the work site.

9. All liquids should be in closed, covered containers. Any spills of hazardous liquids should not be left unattended until cleanup has been completed

10. Use of rodenticides and herbicides on the project site should be prohibitied unless approved by the USFWS and the CDFW. This is necessary to prevent primiary or secondary poisoning of special-status species using adjacent habitats, and to avoid the depletion of prey upon which they depend. Label restrictions and other restrictions imposed by the U.S. Environmental Protection Agency (EPA), the California Department of Food and Agricultural (CDFA), and other state and federal legislation shall be implemented. If rodent control must be conducted, zinc phosphide shall be used because of its proven lower risk to kit foxes.

11. Any employee who inadvertently kills or injures a listed species, or who finds any such animal dead, injured, or entrapped, shall be required to report the incident immediately to a designated site representative (e.g., foreman, project manager, environmental inspector, etc.), except animals killed on state and county roads when such mortality is not associated with project traffic In the case of entrapped animals that are listed species, escape ramps or structures shall be installed immediately, if possible, to allow the subject anima(s) to escape unimpeded.

12. In the case of injured special-status wildlife, the CDFW shall be notified immediately. During business hours, Monday through Friday, the phone number is (559) 243-4017. For non-business hours, report to (800) 952-5400. Notification shall include the date, time, location, and circumstances of the incident. Instructions provided by the CDFW for the care of the injured animal shall be followed by the contractor onsite.

13. In the case of dead animal(s) that are listed as threatened or endangered, the USFWS and the CDFW shall be immediately (within 24 hours) notified by phone or in person and shall document the initial notification in writing within two working days of the findings of any such animal(s). Notification shall include the date, time, location and circumstances of the incident.

14. Prior to commencement of construction on any phase of work, work areas should be clearly marked with fencing, stakes with rope or cord, or other means of delineating the work area boundaries.

15. All personnel entering the project site should attend a worker orientation program. The worker orientation program will present measures required to avoid, minimize, and mitigate impacts to biological resources and will include, at a minimum, the following federeal and state endangered species acts; biolgoical survey results for the current construction area; life history informatinn for the species of concern; biological resource avoidance, minimization, and mitigation requirements; consequences for failure to successfully implement requirements; and procedures to be followed if dead or injured wildlife are located during project activities. Upon completion of the orientation, employees should sign a form stating that they attended the program and understand all biological resource mitigation measures and receive a hard hat sticker or other means of identifying that

Cultural Resources				
Potential impacts to cultural resources during construction.	1. If an unexpected discovery of cultural resources or human remains during any phase of construciton is made it will result in an immediate work stoppage in the vicinity of the find until resources can be evaluated by a professional archaeologist. If the resource is deemed to be an "important" cultural resource, impacts will be mitigated by avoidance, where feasible. 2. Contractor shall provide a Cultural Resource Sensitivity Training Course to all personnel prior to any ground-disturbing activites associated with this project.	Construction Contractor	The Construction Manager shall provide necessary training to construction workers regarding cultural resources and what to do if cultural resources or human remains are identified.	Prior to and during all phases of construction.
Hydrology and Water Quality				
Potential impacts from groundwater pumping.	1. Vaughn Water Company regularly monitors the groundwater levels in their wells in order to ensure the wells are not excessively lowering groundwater levels in the area. Well monitoring will continue in nearby wells during	Owner	The Owner will monitor groundwater levels in their wells to ensure excessive drawdowns are not occurring.	Prior to and during all phases of construction.

Noise				
Potential impacts from noise during construction and operation.	1. Noise levels will be increased on a temporary basis during construction activities. Installation of sound barrier walls will be installed around the south, west, and east sides of the well site during well drilling activities to reduce noise and light to nearby residents. 2. The temporary noise impacts attributed to construction will be mitigated for all construction, with the exception of the well drilling activities, by limiting the hours of construction on-site to weekdays, Monday thru Friday, from 7 am to 5 pm. 3. The well will be equipped with an insulated motor enclosure to mitigate motor noise and the electrical and ozone treatment equipment will be located within an insulated metal building. The booster pumps are equipped with variable speed drives to help run at optimum efficiency and shorter, quieter run times. The well site will be secured with an 8-ft masonry wall, which is 2-ft taller than normal, to help reduce the overal noise impact.	Construction Contractor	The Construction Manager will monitor work durations and sound mitigation efforts.	Prior to and during all phases of construction.

Traffic				
Potential impacts to traffic during construction.	1. During construction there will be an increase in traffic as a result of material deliveries and construction crews, however, construction signage will be provided to alert people around the construction activity as needed. 2. The Company will obtain all necessary encroachment permits for any proposed work within the County road right of way.	Construction Contractor	The Construction Manager will monitor construction signage and compliance with applicable permits.	Prior to and during all phases of construction.