Draft Initial Study and Mitigated Negative Declaration for Santa Fe West Subdivision

May 2025

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SECTION 1: CEQA Review Process

Project Title: Santa Fe West Subdivision

1.1 California Environmental Quality Act Guidelines

Section 15063 of the California Environmental Quality Act (CEQA) Guidelines requires that the Lead Agency prepare an Initial Study to determine whether a discretionary project will have a significant effect on the environment. All phases of the project planning, implementation, and operation must be considered in the Initial Study. The purposes of an Initial Study, as listed under Section 15063(c) of the CEQA Guidelines, include:

(1) Provide the lead agency with information to use as the basis for deciding whether to prepare an EIR or negative declaration;
(2) Enable an applicant or lead agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a negative declaration;
(3) Assist the preparation of an EIR, if one is required, by:
  (a) Focusing the EIR on the effects determined to be significant,
  (b) Identifying the effects determined not to be significant,
  (c) Explaining the reasons for determining that potentially significant effects would not be significant, and
  (d) Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.
(4) Facilitate environmental assessment early in the design of a project;
(5) Provide documentation of the factual basis for the finding in a negative declaration that a project will not have a significant effect on the environment
(6) Eliminate unnecessary EIRs;
(7) Determine whether a previously prepared EIR could be used with the project.

1.2 Initial Study

This document is the Initial Study/Mitigated Negative Declaration for the proposed construction and operation of a 171 Single Family Homes (Project). The City of Tulare will act as the Lead Agency for this Project under CEQA and the CEQA Guidelines.

1.3 Environmental Checklist

The Lead Agency may use the CEQA Environmental Checklist Form (CEQA Guidelines, Section 15063(d)(3) and (f)) in preparation of an Initial Study to provide information for determination if there are significant effects of the project on the environment. A copy of the completed Environmental Checklist is set forth in Section 3.

1.4 Notice of Intent to Adopt a Negative Declaration

The Lead Agency shall provide a Notice of Intent to Adopt a Negative Declaration (CEQA Guidelines, Section 15072) to the public, responsible agencies, trustee agencies and the county clerk within which the project is located, sufficiently prior to adoption by the Lead Agency of the Negative Declaration to allow the public and agencies the review period. The public review period (CEQA Guidelines, Section 15105) shall not be less than 20 days, unless the Initial Study/Negative Declaration is submitted to the State Clearinghouse, in which case the review period shall not be less than 30 days unless a shorter period is approved by the State Clearinghouse (CEQA Guidelines, Section 15073(a)).

Prior to approving a project, the decision-making body of the Lead Agency shall consider the proposed Negative Declaration or Mitigated Negative Declaration together with any comments received during the public review process, and shall adopt the proposed Negative Declaration or Mitigated Negative Declaration only if it finds on the basis of the whole record before it (including the Initial Study and any comments received), that there is no substantial evidence that the project will have a significant effect on the environment and that the Negative Declaration reflects the Lead Agency's independent judgment and analysis (CEQA Guidelines, Section 15074(b)).

The written and oral comments received during the public review period will be considered by the City of Tulare prior to adopting the Negative Declaration. Regardless of the type of CEQA document that must be prepared, the overall purpose of the CEQA process is to:

1) Assure that the environment and public health and safety are protected in the face of discretionary projects initiated by public agencies or private concerns;
2) Provide for full disclosure of the project's environmental effects to the public, the agency decision-makers who will approve or deny the project, and the responsible trustee agencies charged with managing resources (e.g. wildlife, air quality) that may be affected by the project; and
3) Provide a forum for public participation in the decision-making process pertaining to potential environmental effects.

According to CEQA Guidelines Section 15070, a public agency shall prepare or have prepared a proposed negative declaration for a project subject to CEQA when:

The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or the initial study identifies potentially significant effects, but:

1) *Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and*

2) *There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.*

The Environmental Checklist Discussion contained in Section Three of this document has determined that the environmental impacts of the Project are less than significant with mitigation measures and that a Mitigated Negative Declaration is adequate for adoption by the Lead Agency.

1.5 Negative Declaration or Mitigated Negative Declaration

The Lead Agency shall prepare or have prepared a proposed Negative Declaration or Mitigated Negative Declaration (CEQA Guidelines Section 15070) for a project subject to CEQA when the Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the Project may have a significant effect on the environment. The proposed Negative Declaration or Mitigated Negative Declaration circulated for public review shall include the following:

(a) A brief description of the project, including a commonly used name for the project.
(b) The location of the project, preferably shown on a map.
(c) A proposed finding that the project will not have a significant effect on the environment.
(d) An attached copy of the Initial Study documenting reasons to support the finding.
(e) Mitigation measures, if any.

1.6 Intended Uses of Initial Study/Negative Declaration Documents

The Initial Study/Negative Declaration document is an informational document that is intended to inform decision-makers, other responsible or interested agencies, and the general public of potential environmental effects of the proposed Project. The environmental review process has been established to enable the public agencies to evaluate environmental consequences and to examine and implement methods of eliminating or reducing any adverse impacts. While CEQA requires that consideration be given to avoiding environmental damage, the Lead Agency must balance any potential environmental effects against other public objectives, including economic and social goals. The City of Tulare as the Lead Agency, will make a

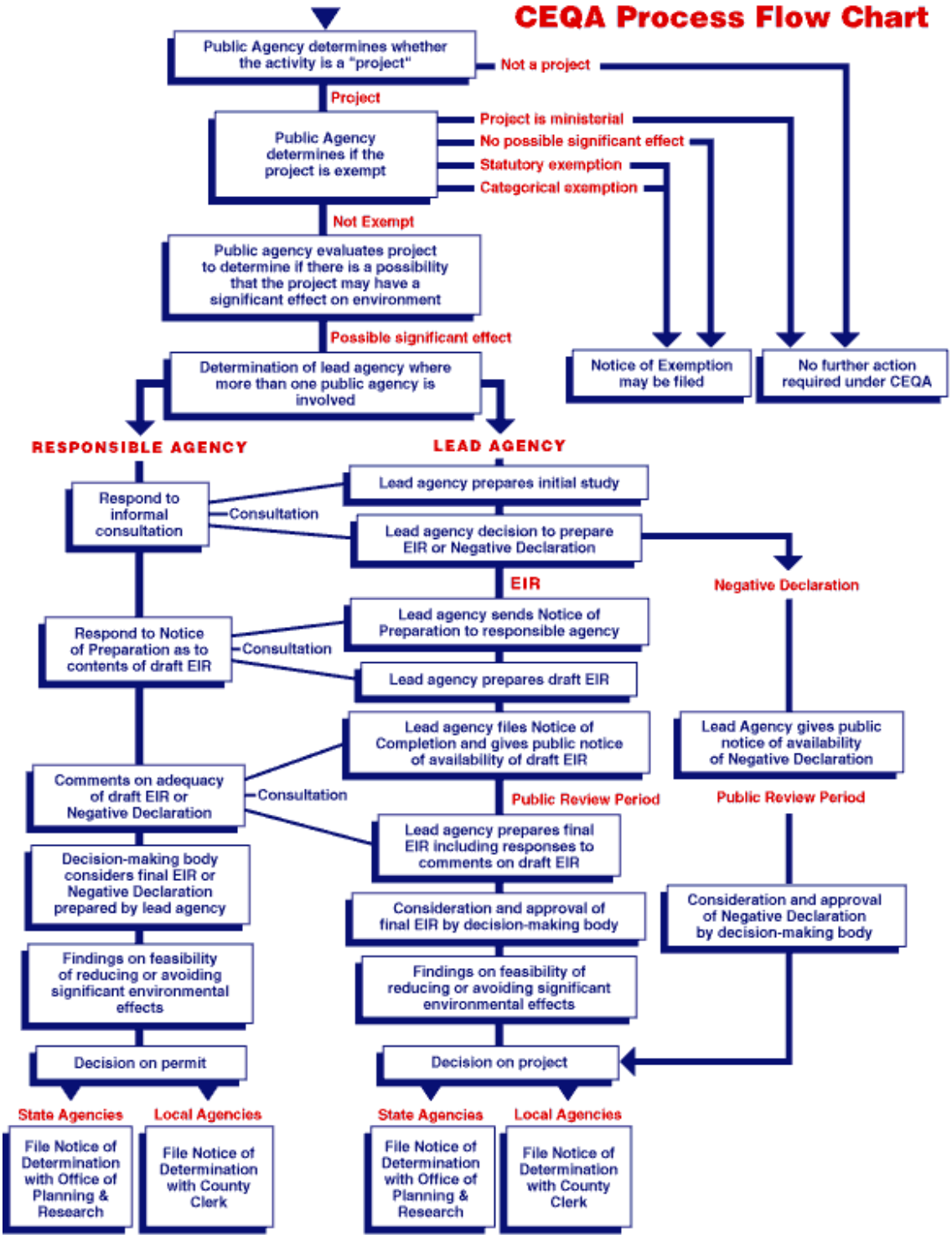
determination, based on the environmental review for the Environmental Study, Initial Study and comments from the general public, if there are less than significant impacts from the proposed project and the requirements of CEQA can be met by adoption of a Mitigated Negative Declaration.

1.7 Notice of Determination (NOD)

The Lead Agency shall file a Notice of Determination within five working days after deciding to approve the Project. The Notice of Determination (CEQA Guidelines, Section 15075) shall include the following:

(1) An identification of the project including the project title as identified on the proposed negative declaration, its location, and the State Clearinghouse identification number for the proposed negative declaration if the notice of determination is filed with the State Clearinghouse.
(2) A brief description of the project.
(3) The agency's name and the date on which the agency approved the project.
(4) The determination of the agency that the project will not have a significant effect on the environment.
(5) A statement that a negative declaration or a mitigated negative declaration was adopted pursuant to the provisions of CEQA.
(6) A statement indicating whether mitigation measures were made a condition of the approval of the project, and whether a mitigation monitoring plan/program was adopted.
(7) The address where a copy of the negative declaration or mitigated negative declaration may be examined.
(8) The identity of the person undertaking a project which is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies or the identity of the person receiving a lease, permit, license, certificate, or other entitlement for use from one or more public agencies.

1.8 CEQA Process Flow Char



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SECTION 2: Project Description

Project Title: Santa Fe West Subdivision

2.1 Project Description and Purpose

The Project proposes to subdivide the 32.97-acre site for 171 single-family residences with lots ranging from 5,000 square feet to 14,948 square feet and a Class I bike path. The Project proposes to amend the zoning of the Project parcels to be Single-Family Residential R-1-4 (4,000 square-feet minimum) to accommodate smaller lot sizes in the Project. The Project would result in onsite and offsite infrastructure improvements including new and relocated utilities, a temporary on-site stormwater basin, new residential streets, improvements to North E Street, and the continuation and improvement of Zumwalt Avenue and Russell Drive. The creation of a temporary basin in the northwest corner of the Project Site would be responsible for the retention of any stormwater created by the Project. The proposed residential development would complement and provide street interconnectivity with the existing residential development to the west while allowing for access to the Tulare Irrigation Canal and Union Pacific Railroad via an access road along the southeast corner of the Project site.

2.2 Project Location

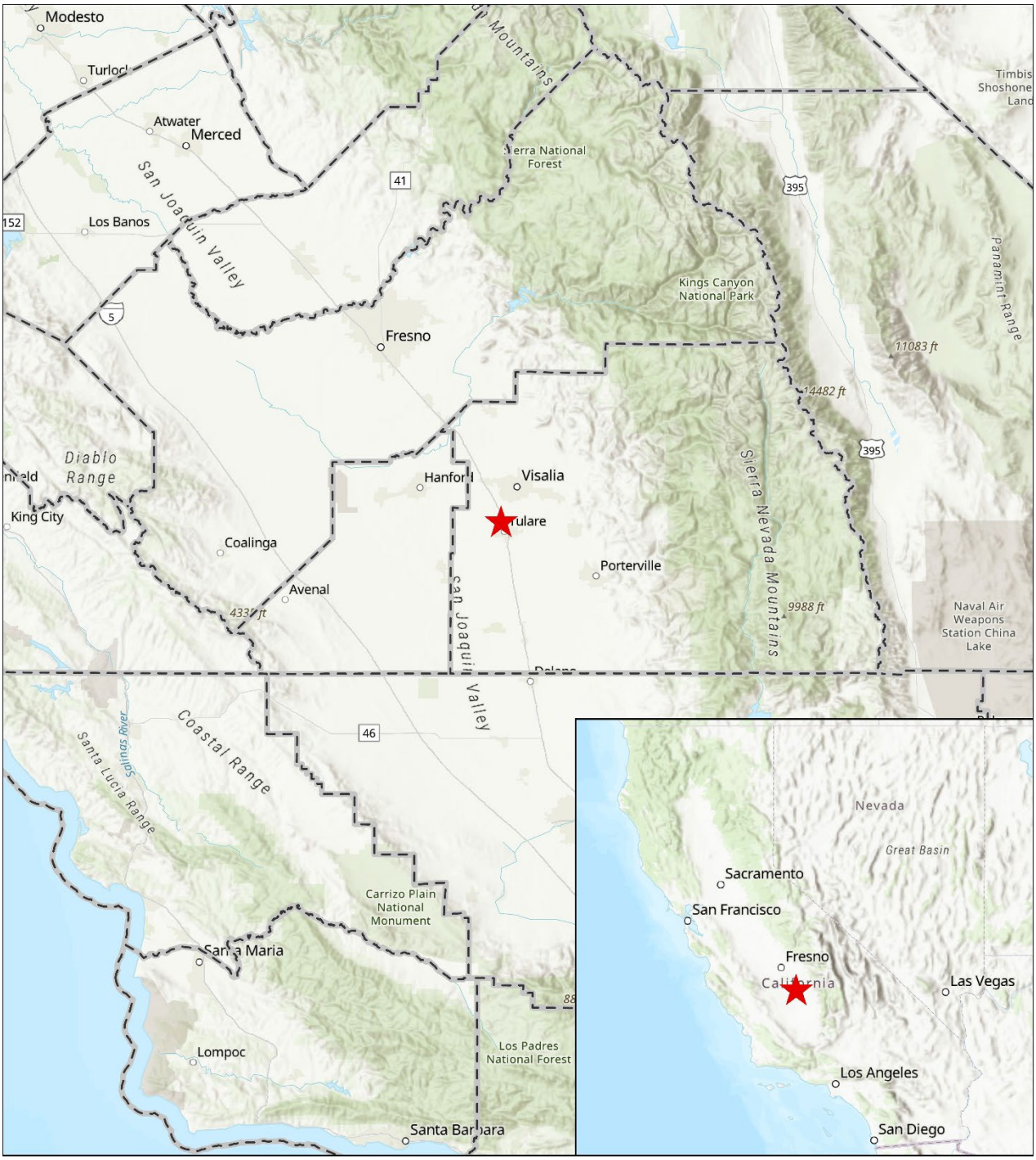
The Project Site consists of approximately 32.97 acres of land in the western portion of the City encompassing two parcels (APN 164-100-008 and 164-100-009). The Project Site is currently agricultural land use, containing orchards of almond trees. It is approximately 292 feet above mean sea level and topographically flat. The site is bordered by low-density residential land uses to the west, agricultural land uses to the north, industrial land uses to the south, and a rail line/service commercial to the east.

2.3 Other Permits and Approvals

Required Approvals: The following discretionary approvals are required for the proposed Project. It should be noted that this list is not exhaustive and additional permits and approvals may also be required:

- City of Tulare
    - Approval of the Tentative Subdivision Map
    - Approval of the Zoning Amendment

    - Other ministerial actions such as grading, building, and encroachment permits
- San Joaquin Valley Air Pollution Control District (SJVAPCD)
    - Approval of the Dust Control Plan
    - Compliance with Rule VIII, 3135, 4101, and 9510
- Central Valley Regional Water Quality Control Board
    - Approval of the Stormwater Pollution Prevention Plan



4CREEKS

Regional Location
Santa Fe West Subdivision
City of Tulare

N

1 inch = 30 miles

Figure 2-1. Regional Location Map

Figure 2-2. Vicinity Map

City of Tulare
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Tulare, CA 93274

SECTION 3: Evaluation of Environmental Impacts

Project Title: Santa Fe West Subdivision

This document is the Initial Study/Mitigated Negative Declaration for the proposed subdivision of approximately 32.97 acres of undeveloped land for the construction and operation of 171 single-family residential dwelling units, temporary on-site stormwater basin, Class I bike path, and street improvements. The City of Tulare is the Lead Agency for this Project under CEQA and the State CEQA Guidelines.

3.1 Purpose

This environmental document aims to implement CEQA. State CEQA Guidelines Section 15002(a) describes the basic purposes of CEQA:

(1) Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
(2) Identify the ways that environmental damage can be avoided or significantly reduced.
(3) Prevent significant, avoidable damage to the environment by requiring changes in Projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
(4) Disclose to the public the reasons why a governmental agency approved the Project in the manner the agency chose if significant environmental effects are involved.

This Initial Study of environmental impacts has been prepared to conform to the requirements of CEQA (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). According to State CEQA Guidelines Section 15070, a public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

(1) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the Project may have a significant effect on the environment, or
(2) The initial study identifies potentially significant effects, but:
a.) Revisions in the Project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and;

b.) There is no substantial evidence, in light of the whole record before the agency, that the Project as revised may have a significant effect on the environment.

3.2 Initial Study/Mitigated Negative Declaration

1. Project Title: Santa Fe West Subdivision

2. Lead Agency: City of Tulare
411 E. Kern Avenue
Tulare, CA 93274
Contact Person: Steven Sopp, Principal Planner
Phone Number: (559) 684-4216

3. Applicant: Steven Whitten
324 S. Santa Fe Street, Suite A
Visalia, CA, 93292

4. **Project Location:** The Project Site consists of approximately 32.97 acres of land in the western portion of the City encompassing two parcels (APN 164-100-008 and 164-100-009). The Project Site is currently agricultural land use, containing orchards of almond trees. It is approximately 292 feet above mean sea level and topographically flat. The site is bordered by low-density residential land uses to the west, agricultural land uses to the north, industrial land uses to the south, and a rail line/service commercial to the east.

5. **General Plan Designation:** Low Density Residential

6. **Zoning Designation:** R-1-8 (Single-Family Residential, minimum 8,000-square-foot-lot), R-1-12 (Single-Family Residential, minimum 12,500-square-foot-lot), R-1-20 (Single-Family Residential, minimum 20,000-square-foot-lot)

7. **Project Description:** The Project proposes to subdivide the 32.97-acre site for 171 single-family residences with lots ranging from 5,000 square feet to 14,948 square feet and a Class I bike path. The Project proposes to amend the zoning of the Project parcels to be Single-Family Residential R-1-4 (4,000 square-feet minimum) to accommodate smaller lot sizes in the Project. The Project would result in onsite and offsite infrastructure improvements including new and relocated utilities, a temporary on-site stormwater basin, new residential streets, improvements to North E Street, and the continuation and improvement of Zumwalt Avenue and Russell Drive. The creation of a temporary basin in the northwest corner of the Project Site would be responsible for the retention of any stormwater created by the Project. The proposed residential development would complement and provide street interconnectivity with the existing residential development to the west while allowing for access to the Tulare Irrigation Canal and Union Pacific Railroad via an access road along the southeast corner of the Project site.

Parking and Access
Each residential lot would include a private driveway and attached two-car garages for each home. Access to the Project Site is accessed via Zumwalt Avenue, Russell Drive, and another new public access street from the west.

Open Space Recreation
The Project would include a new Class I bike path that would run parallel to N E Street on the western boundary of the Project site.

Utilities
Southern California Edison (SCE) would provide electricity to the Project Site. AT&T would provide telecommunications. Stormwater would be managed by a temporary on-site stormwater basin. The sewer for the Project would tie into an existing 10-inch diameter pipeline along North E Street. Water for the Project would tie into an existing 10-inch diameter pipeline also on North E Street.

8. **Surrounding Land Uses and Settings:**
North:
- Existing Land Use: Agricultural Uses
- Zoning: AE-20; Exclusive Agriculture - 20-acre minimum (Tulare County General Plan)
- General Plan Designation: Rural Residential

South:
- Existing Land Use: Industrial Uses
- Zoning: M-2; Heavy Industrial District (City of Tulare General Plan)
- General Plan Designation: Light Industrial

East:
- Existing Land Use: Various Commercial Uses
- Zoning: C-4; Service Commercial (City of Tulare General Plan)
- General Plan Designation: Service Commercial

West:
- Existing Land Use: Single-Family Residential
- Zoning: R-1--6; Single Family Residential-8,000 square foot minimum, R-1-12.5; Single Family Residential-12,500 square foot minimum (City of Tulare General Plan)
- General Plan Designation: Low Density Residential and Residential Estate

9. Required Approvals: The following discretionary approvals are required for the proposed Project. It should be noted that this list is not exhaustive and additional permits and approvals may also be required:

    - City of Tulare
        - Approval of the Tentative Subdivision Map
        - Approval of the Zoning Amendment

    - Other ministerial actions such as grading, building, and encroachment permits
- San Joaquin Valley Air Pollution Control District (SJVAPCD)
    - Approval of the Dust Control Plan
    - Compliance with Rule VIII, 3135, 4101, and 9510
- Central Valley Regional Water Quality Control Board
    - Approval of the Stormwater Pollution Prevention Plan

10. Native American Consultation: AB 52 requires the lead agency to notify tribes that have previously indicated they are traditionally and culturally affiliated with that geographic area regarding their expertise concerning tribal cultural resources. As part of the process of identifying tribal cultural resources in or near the Project Site, the City sent a letter via certified mail on March 5, 2025, to the Santa Rosa Rancheria Tachi Yokut Tribe inviting the tribe to consult with the City regarding this Project. The 30-day response window closed on April 6, 2025. No response or request for consultation was received.

Acronyms

AAQS	Ambient Air Quality Standards
AB	Assembly Bill
APCD	Air Pollution Control District
AQMD	Air Quality Management District
ARB	Air Resources Board
BMP	Best Management Practices
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CRHR	California Register of Historical Resources
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
DOC	California Department of Conservation
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EIA	Energy Information Administration
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
HCS	Hierarchical Cell Structure
HSC	Health and Safety Code
ISMND	Initial Study Mitigated Negative Declaration
LOS	Level of Service
MCL	Maximum Contaminant Level
MEIR	Master Environmental Impact Report
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NOI	Notice of Intent
NRHP	National Register of Historic Places
NPDES	National Pollutant Discharge Elimination System
OS	Open Space
O3	Ozone
PM10	Particulate Matter less than 10 microns
PM2.5	Particulate Matter less than 2.5 microns
PRC	Public Resources Code
ROW	Right-of-Way
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SJVAPCD	San Joaquin Valley Air Pollution Control District

SWPPP	Storm Water Pollution Prevention Plan
TAC	Toxic Air Contaminant
TCR	Tribal Cultural Resource
USGS	United States Environmental Protection Agency
USEPA	United States Geological Survey
USDOT	United States Department of Transportation

Figure 3-1. Vicinity Map

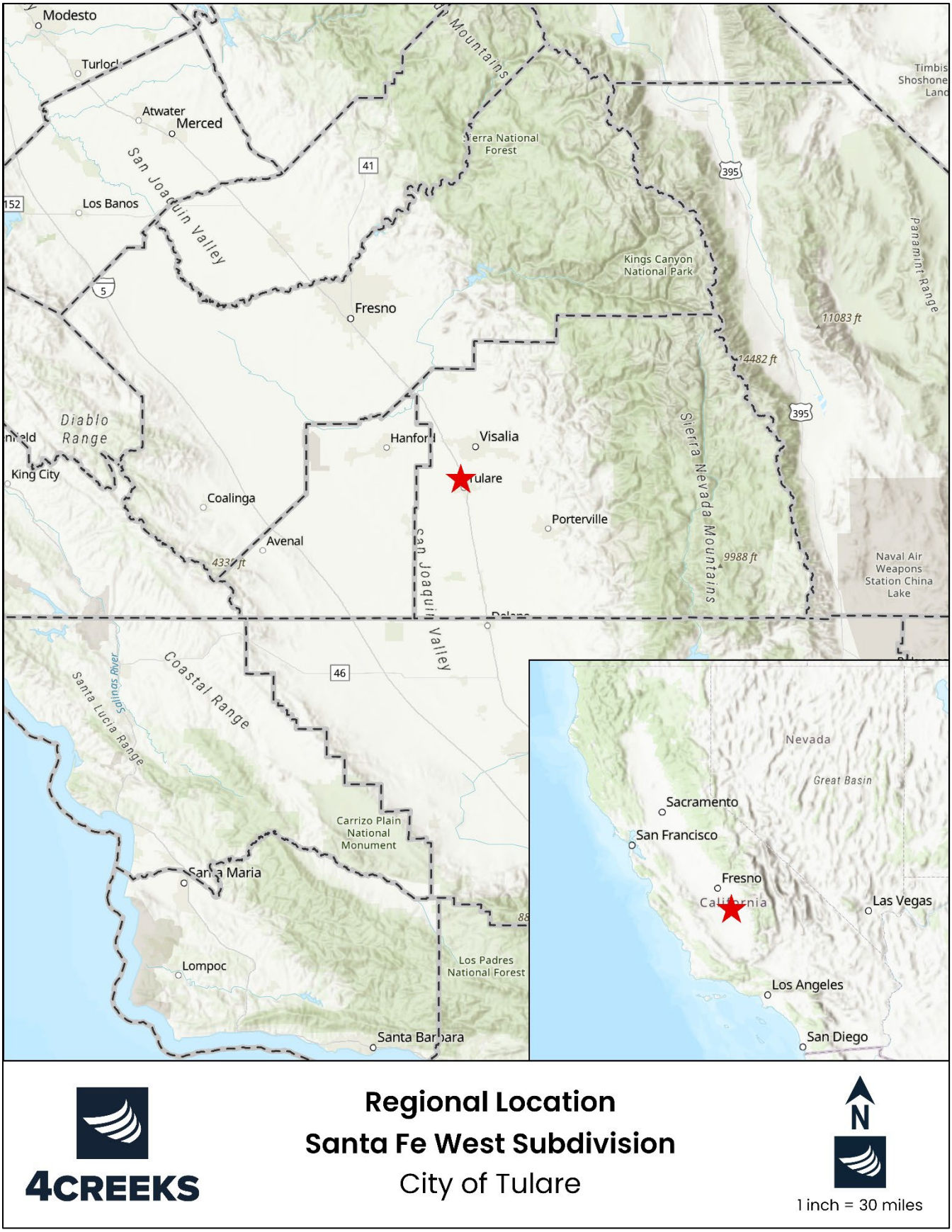

Figure 3-2. Regional Location Map

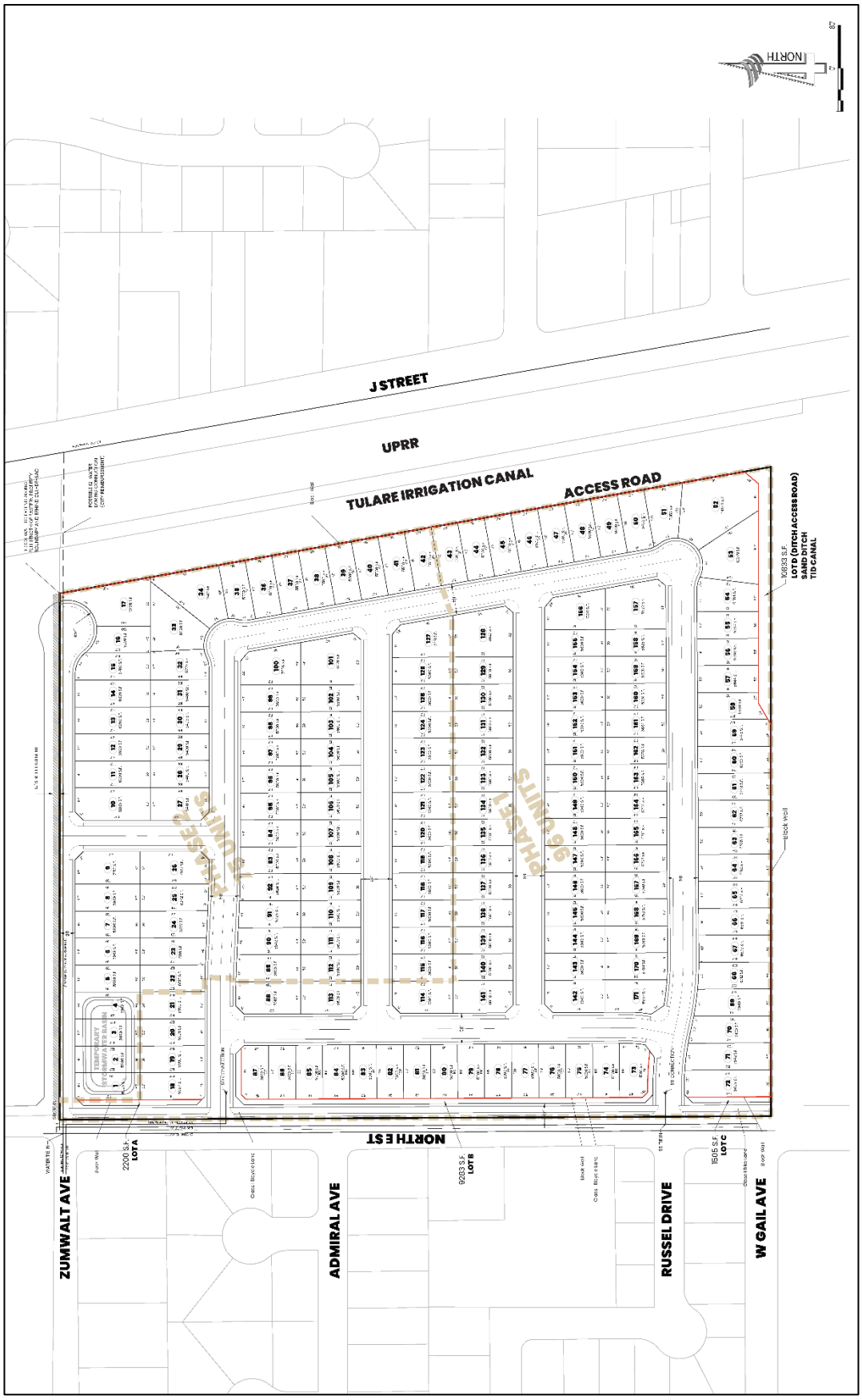

Figure 3-3: Site Plan

3.3 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 reference 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 impact.
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 if 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:
   - Earlier Analysis Used. Identify and state where they are available for review.
   - 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.
   - Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated." Describe and 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.

3.4 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 Forest Resources
☑ Air Quality
☑ Biological Resources
☑ Cultural Resources
☐ Energy
☐ Geology/Soils
☐ Greenhouse Gas Emissions
☐ Hazards & Hazardous Materials
☑ Hydrology and Water Quality
☐ Land Use and Planning
☐ Mineral Resources
☐ Noise
☐ Population
☐ Public Services
☐ Recreation
☐ Transportation
☑ Tribal Cultural Resources
☐ Utilities and Service System
☐ Wildfire
☑ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency) Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

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 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. A Negative Declaration 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 requested.

SIGNATURE	DATE
PRINTED NAME	DATE

3.5 Environmental Analysis

The following section evaluates the impact categories and questions in the checklist and identifies mitigation measures, if applicable.

I. AESTHETICS

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

Environmental Setting

The following photos demonstrate the aesthetic character of the Project Site area. As shown, the proposed Site is on a relatively flat area with agriculture, surrounded by residential agriculture, industrial and commercial uses. The Sierra Nevada Mountains are generally slightly visible on an average day when facing east.

Photo 1: North and West Side Boundary and Dirt Access Road (Facing Southeast) Source: Google Maps September 2022

Photo 2: South and West Side Boundary and Dirt Access Road (Facing Northeast) Source: Google Maps November 2024

Photo 2: East Side Boundary (Facing Southwest) Source: Google Maps November 2024

There are no aesthetic resources identified in the City of Tulare General Plan; however, the views of the Sierra Nevada Mountains are considered to be an important scenic vista in Tulare County.

Sierra Nevada Mountains: The Sierra Nevada Mountain range and its foothills stretch along the east area of the county and are a valuable aesthetic resource. Additionally, Sequoia National Park is located within the stretch of the Sierra Nevada Mountains located in Tulare County. Sequoia National Forest is a U.S. National Forest known for its mountain scenery and natural resources. Located directly north of Sequoia National Park is Kings Canyon National Park, a U.S. National Park also known for its towering sequoia trees and scenic vistas. The Sierra Nevada Mountains are approximately 17 miles east of the proposed Project Site and are generally visible on an average day when facing east.

Regulatory Setting

State Scenic Highways: The State Scenic Highway Program is implemented by the California Department of Transportation (Caltrans) and was developed to preserve the aesthetic quality of certain highway corridors. Highways included in this program are designated as scenic highways. A highway is designated as scenic based on how much of the natural landscape is visible to travelers, the quality of that landscape, and the extent to which development obstructs views of the landscape. There are no designated State Scenic Highways or highways that are eligible for designation within the City of Tulare.

City of Tulare General Plan: The City of Tulare General Plan includes the following aesthetic goals and policies that are intended to protect the City's aesthetic resources and are relevant to the proposed Project.

- **LU-P13.14 Scenic Features and Views.** The City shall preserve its scenic features and view corridors to the mountains.
- **LU-P13.2 City Image.** The City shall encourage a high level of design quality (architectural and landscape) for all new development in order to create a pleasant living environment, a source of community pride, and an improved overall City image.
- **LU-P13.24 Minimize Lighting Impacts.** The City shall ensure that lighting in residential areas and along roadways shall be designed to prevent artificial lighting from reflecting into adjacent natural or open space areas.
- **LU-P13.25 Outdoor Lighting.** The City shall ensure that future development includes provisions for the design of outdoor light fixtures to be directed/shielded downward and screened to avoid nighttime lighting spillover effects on adjacent land uses and nighttime sky conditions.

Discussion

a) Would the Project have a substantial adverse effect on a scenic vista?

Less Than Significant Impact: A scenic vista is defined as a viewpoint that provides expansive views of highly valued landscapes for the benefit of the general public. The Sierra Nevada Mountains are the primary scenic vista within this region, and the Land Use Element of the City's General Plan states that view corridors to the mountains should be preserved. These view corridors are typically found along major arterial streets in the City and on its periphery.

The Project Site is located in northern Tulare, approximately 17 miles west of the foothills of the Sierra Nevada Mountains. Due to the distance and intervening urban development, views of the mountains from the Site are limited. Additionally, poor air quality often obscures visibility of distant features like the Sierra Nevada Mountains. The Project involves developing a 32.97-acre agricultural land into 171 single-family residential homes, a Class I bike path, and a temporary stormwater basin, which is consistent with the existing low-density residential development to the west and within an area of the City already zoned and designated for residential land uses.

Given the Project's distance from the Sierra Nevada Mountains and the existing surrounding development, the Project would not obstruct or degrade any designated scenic vistas. Therefore, the impact on scenic vistas is *less than significant.*

b) Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within state scenic highway?

No Impact: There are no officially designated State Scenic Highways within the City of Tulare. The nearest eligible State Scenic Highway is Highway 198, located approximately 7 miles north of the Project Site. Both the distance and built environment between the Project Site and Highway 198 precludes visibility of the Project Site from Highway 198.

Additionally, the Project Site is currently agricultural land with no scenic resources such as significant trees, rock outcroppings, or historic buildings. Therefore, the Project would not damage any scenic resources within a state scenic highway corridor. *No impact* would occur.

c) In non-urbanized areas, would the Project substantially degrade the existing visual character or quality 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?

Less Than Significant Impact: The Project Site is located within the City limits and is considered part of an urbanized area. The Site is zoned and designated for residential land uses. Although the current zoning consists of larger lot designations (R-1-8, R-1-12, R-1-20), the Project

proposes a zone amendment to R-1-4 to allow for smaller lots. This amendment would continue to support residential development consistent with the General Plan's Low Density Residential designation and surrounding residential uses.

The development of single-family homes on the Project Site would also complement the existing residential neighborhoods to the west that are consistent with the underlying zoning and General Plan land use designations. The Project would adhere to City zoning regulations and design guidelines applicable to the proposed zoning, and no variances from these standards are proposed

Additionally, the Project would be consistent with relevant policies from the City of Tulare General Plan that are intended to protect aesthetic resources. These include Policy LU-P13.14, which requires preservation of scenic features and view corridors, with the Project not obstructing views of the mountains. Policy LU-P13.2 encourages high-quality architectural and landscape design, which the Project would achieve through compliance with City design standards. Policies LU-P13.24 and LU-P13.25 require minimizing lighting impacts and shielding outdoor lighting to avoid spillover and preserve nighttime conditions, all of which would be incorporated into the Project's lighting design.

Therefore, the Project would not conflict with applicable zoning or regulations governing scenic quality and would result in a *less than significant impact.*

d) Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact: The Project would introduce new lighting sources on the Project Site, including street lighting, exterior residential lighting, and interior lighting visible from windows at night. These lighting installations are typical for residential developments and are necessary for safety and functionality.

Project lighting would comply with the City's lighting standards and ordinances, which are designed to minimize light spillover, glare, and skyglow. Specifically, the Project would adhere to the City's General Plan Policies LU-P13.24 and LU-P13.25, which require that lighting be directed downward and shielded to prevent excessive glare and light trespass onto adjacent properties. Given these considerations, the new lighting would not adversely affect day or nighttime views in the area. While the Project would introduce new sources of light, the Project Site is adjacent to an existing single-family residential area and within urbanized City limits. Additionally, the Project would adhere to City standards that would ensure that impacts related to light and glare. Therefore, the Project would result in a *less than significant impact.*

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II. AGRICULTURE AND FOREST RESOURCES:

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☑	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	☐	☐	☐	☑
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)?	☐	☐	☐	☑
d) Result in the loss of forestland or conversion of forest land to non-forest use?	☐	☐	☐	☑
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 forestland to non-forest use?	☐	☐	☑	☐

Environmental Setting

Agriculture is a vital component of the City's economy and is a significant source of the City's cultural identity. As such, preserving the productivity of agricultural lands is integral to maintaining the City's culture and economic viability.

The Project Site is not under a Williamson Act contract and is designated as Prime Farmland by the Department of Conservation's Farmland Mapping and Monitoring Program. The Project Site is currently used for agricultural operations.

Regulatory Setting

California Land Conservation Act of 1965: The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, allows local governments to enter into contracts with private landowners to restrict the activities on specific parcels of land to agricultural or open space uses. The landowners benefit from the contract by receiving greatly reduced property tax assessments. The California Land Conservation Act is overseen by the California Department of Conservation; however local governments are responsible for determining specific allowed uses and enforcing the contract. The City of Tulare General Plan states that the City encourages the use of Williamson Act contracts on parcels located outside the urban development boundary.

California Farmland Mapping and Monitoring Program (FMMP): The FMMP is implemented by the California Department of Conservation (DOC) to conserve and protect agricultural lands within the State. The land included in this program is based on soil type, annual crop yields, and other factors that influence the quality of farmland. The FMMP mapping categories for the most important statewide farmland are as follows, defined by the DOC:

- ***Prime Farmland*** has the ideal physical and chemical composition for crop production. It has been used for irrigated production four years before classification and can produce sustained yields.
- ***Farmland of Statewide Importance*** has been used for irrigated production four years before classification and is only slightly poorer quality than Prime Farmland.
- ***Unique Farmland*** has been cropped four years before classification and does not meet the Prime Farmland or Farmland of Statewide Importance criteria, but it has produced specific crops with high economic value.
- ***Farmland of Local Importance*** encompasses farmland that does not meet the criteria for the previous three categories. These may lack irrigation, produce major crops, be zoned as agricultural, and/or support dairy.
- ***Grazing Land*** has vegetation that is suitable for grazing livestock.
- ***Urban and Built-up Land*** is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

City of Tulare General Plan: The Conservation and Open Space Element of the City's General Plan includes the following agricultural resource goals and policies that are potentially applicable to the proposed Project:

- COS-P3.1 Protect Interim Agricultural Activity. The City shall protect the viability of existing interim agricultural activity in the UDB to the extent possible.
- COS-P3.2 Agricultural Buffers. The City shall require that agricultural land uses designated for long-term protection (in a Williamson Act contract or under a conservation easement located outside the City's UDB) shall be buffered from urban land uses through the use of techniques including, but not limited to, spatial separations (e.g. greenbelts, open space setbacks, etc.), transitions in density, soundwalls, fencing, and/or berming.
- COS-P3.3 Agricultural Disclosures. The City shall require that developers of residential projects, which are within general proximity of agricultural operations in the city, to provide notification to new homeowners within their deeds of the City's right to farm ordinance.
- COS-P3.4 Discourage Leapfrog Development. The City shall discourage leapfrog development (defined as urban development more than 1/2 mile from existing urban development) and development of peninsulas extending into agricultural lands to avoid adverse effects on agricultural operations and contribute to premature conversion.
- COS-P3.9 Williamson Act Contracts. The City shall encourage the use of Williamson Act contracts on parcels located outside the UDB.
- COS-P3.10 Williamson Act Contracts near City Limits. The City shall protest the formation of new Williamson Act or Super Williamson Act contracts within the UDB.
- COS-P3.11 Williamson Act Non-Renewal in UDB. The City shall support non-renewal or cancellation processes for Williamson Act designated lands within the City of Tulare UDB.
- COS-P3.12 Mitigation for Agricultural Land Conversion. The City shall create and adopt a mitigation program to address the conversion of Prime Farmland & Farmland of Statewide Importance within the UDB and outside the city limits to non-agricultural uses. This mitigation program shall:
    - Require a 1:1 ratio of agricultural land preserved for every acre of land converted. o Require land to be preserved be equivalent to the land converted, e.g. Prime Farmland, and further require that the land to be preserved has adequate existing water supply to support agricultural use, is designated and zoned for agriculture, is located outside of a city UDB, and is within the southern San Joaquin Valley.
    - Require mitigation prior to or at time of impact. to allow mitigation to be provided either by purchase of agricultural easements or by payment of agricultural mitigation fees, but state that purchase of conservation easements is the preferred form of mitigation. Both purchase of easements and payment

of mitigation fees should cover not only the cost of an agricultural easement, but additional costs of transactional fees and administering, monitoring, and enforcing the easement.

  - Require easements to be held by and/or mitigation fees to be transferred to a qualifying entity, such as a local land trust with demonstrated experience administering, monitoring and enforcing agricultural easements.
  - Require the qualifying entity to submit annual status and monitoring reports to the City and to Tulare County.
  - Allow stacking of conservation and agricultural easements if habitat needs of species on conservation easement are compatible with agricultural activities/use on agricultural easement.
  - Allow exemptions for conversion of land to agricultural tourism uses, agricultural processing uses, agricultural buffers, public facilities, and roadways.

- COS-P3.13 Farmland Trust and Funding Sources. The City shall encourage the trust or other qualifying entity to pursue a variety of funding sources (grants, donations, taxes, or other funds) to fund further implementation of mitigation for agricultural land conversion.

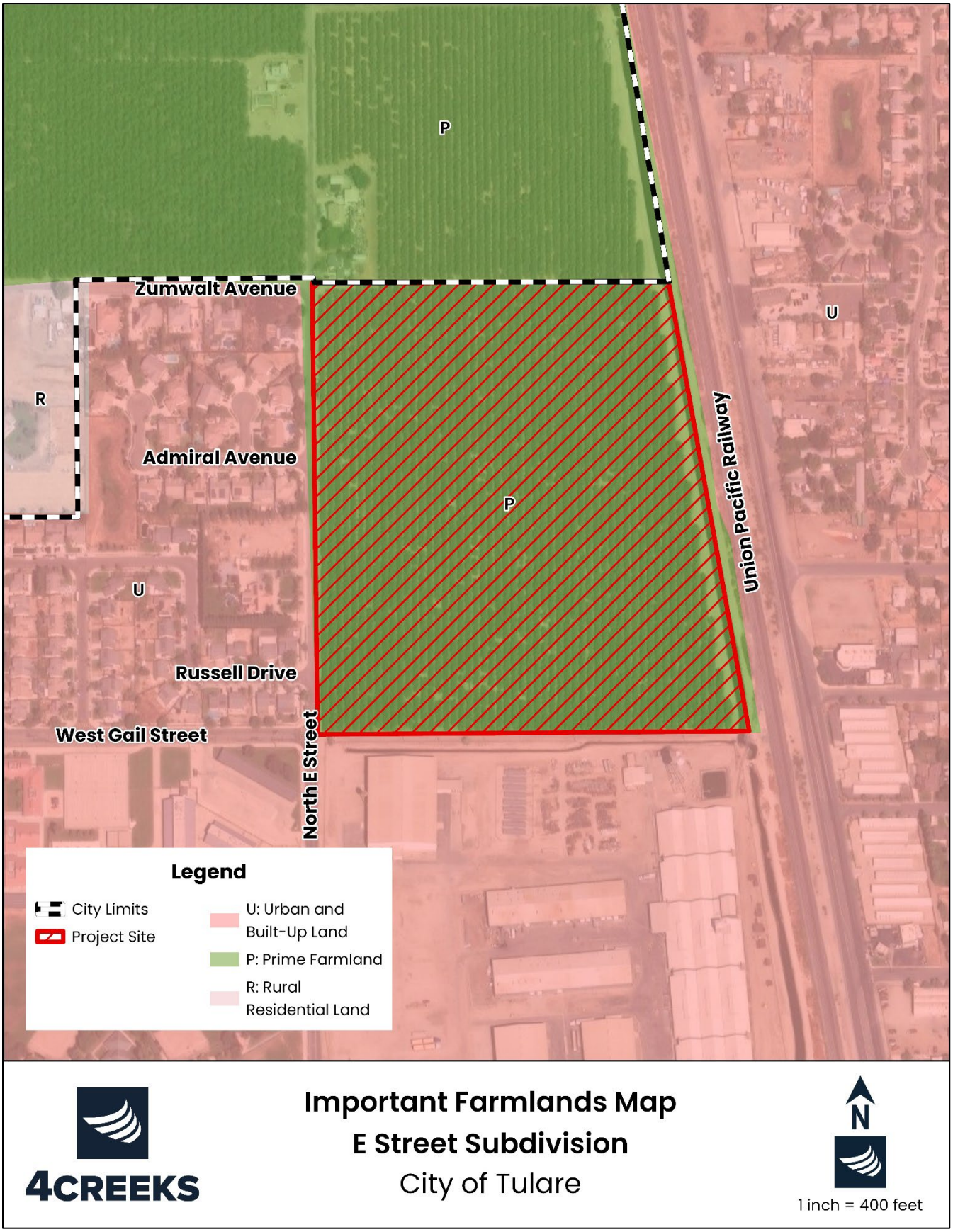


Figure 3-4: Important Farmlands Map

Discussion

a) Would the Project 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?

Less Than Significant Impact: The Project Site is designated as Prime Farmland under the Departments of Conservation's Farmland Mapping and Monitoring Program (DOC's FMMP). The Project Site is currently used for agricultural operations. However, the Project Site is located within the City's Urban Development Boundary (UDB) and within the City limits. The Project Site is zoned for single-family residential land use and designated by the General Plan for low-density residential consistent with the zoning. The Project would develop 171 single-family residential homes, a Class I bike path, and a temporary stormwater basin, which aligns with the planned land use for the area to accommodate anticipated urban growth.

The Project Site is already within the City limits, and therefore General Plan Policy COS-P3.12, requiring a farmland mitigation, does not apply to this Project. No farmland mitigation will be required for the Project. As the Project is within the City and its UDB and on land already designated for residential use, the Project supports the City's goals for orderly urban growth and efficient land use that was articulated in the General Plan's Environmental Impact Report. Therefore, given that the Project is consistent with the City's General Plan and zoning ordinances, the Project would result in a *less than significant impact.*

b) Would the Project conflict with existing zoning for agricultural use, or a Williamson Act Contract?

No Impact: The Project Site is not zoned for agricultural use nor is the Project Site under an active Williamson Act contract. The Project Site is zoned for residential, and the proposed Project is consistent with the existing underlying zoning. Therefore, the Project would not conflict with existing zoning for agricultural use or a Williamson Act contract. Therefore, *no impact* would occur.

c) Would the Project 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: The Project Site is not zoned for forest land, timberland, or Timberland Production. There is no forest land located on the Project Site, and the Project does not involve any activities related to forestry resources. The Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland. Therefore, *no impact* would occur.

d) Would the Project result in the loss of forestland or conversion of forest land to non-forest use?

No Impact: The Project Site does not contain any forestland as defined under Public Resources Code section 12220(g) or Government Code. The Project Site is currently used for agricultural purposes and is zoned for residential development. Therefore, the Project would not result in the loss of forestland or the conversion of forest land to non-forest use, and *no impacts* would occur.

e) Would the Project 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 forestland to non-forest use?

Less Than Significant Impact: The Project would permanently convert approximately 32.97 acres of Prime Farmland from agricultural use to residential use. While this represents a direct conversion of Farmland, several factors mitigate the significance of this impact:

- Consistency with UDB: The Project Site is within the City's UDB and City limits, where urban development is anticipated and encouraged. This aligns with Policy COS-P3.4, which discourages leapfrog development and promotes contiguous urban growth to minimize adverse effects on agricultural operations. The Project would complement the existing single-family residential land uses to the immediate west of the Project Site.
- Zoning and General Plan Compliance: The Project Site is zoned for single-family residential development and designated by the General Plan for low-density residential, which is consistent with the zoning. The Project's proposed land use of single-family residential supports the City's objectives for housing and community development.
- Adjacent Land Uses: The Project is adjacent to existing low-density residential developments to the west. The Project would complement the residential neighborhood that is located to the west and improve community development cohesion.
- Agricultural Buffers and Disclosures: In accordance with Policies COS-P3.2 and COS-P3.3, the Project would implement measures such as spatial separations, fencing, or landscaping to buffer any nearby agricultural operations. Developers would provide notifications to new homeowners regarding the proximity of agricultural activities and the City's right-to-farm ordinance.
- No Impact on Adjacent Farmland: The Project is not expected to directly induce the conversion of adjacent Farmland to non-agricultural uses per se, since the Project is consistent with the City's anticipated and previously approved growth patterns, which includes the land surrounding as well as the Project Site. It should be noted that residential land uses already exist to the west and current agricultural land uses to the north are under an Agricultural Preservation Contract through the Williamson Act. Development of these agricultural areas, which includes designated Farmland, would be independent of the Project's approval and development.

While the Project involves the conversion of designated Farmland to non-agricultural use, the impact is considered *less than significant* due to compliance with the City's planning policies, mitigation measures, and the promotion of orderly urban growth within the UDB.

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☑	☐
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?	☐	☐	☑	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☑	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☑	☐

The following analysis is based on the Air Quality, Greenhouse Gas, and Energy Assessment prepared for the Project in February 2025, which is available in Appendix A to this report; and the Health Risk Assessment prepared by Core Environmental Consulting in March 2025, which is available in Appendix B to this report.

Environmental Setting

San Joaquin Valley Air Basin

The Project lies in western Tulare County, within the San Joaquin Valley Air Basin. The San Joaquin Valley Air Basin is bordered by the Sierra Nevada Mountains to the east, Coastal Ranges to the west, and the Tehachapi Mountains to the south. These mountain ranges restrict air movement and prevent the dispersal of pollution in the Valley below.

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is comprised of the San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, and Tulare counties and the Valley portion of Kern County and has jurisdiction over most air quality matters in the San Joaquin Valley Air Basin (SJVAB). Due to topographic features and the prevalence of agriculture in the region, the San Joaquin Valley Air Basin has one of the most severe air pollution problems in the State of California and the nation. Air pollution is hazardous to health, reduces visibility, degrades or soils materials, and can damage native vegetation. State and national ambient air quality

standards were created to protect health and welfare, and to minimize other impacts. The ambient air quality standards are outlined in the Regulatory Setting section.

The SJVAPCD has developed a Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) to act as an advisory document for addressing air quality in environmental documents. The GAMAQI was used as a guide for addressing air quality impacts in this report.

Air Pollutants of Concern

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards for outdoor concentrations. The federal and state standards have been set at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons such as children, pregnant women, and the elderly, from illness or discomfort. Criteria air pollutants include ozone (O3), nitrogen dioxide (NO2), carbon monoxide (CO), sulfur dioxide (SO2), particulate matter 2.5 microns or less in diameter (PM2.5), particulate matter ten microns or less in diameter (PM10), and lead (Pb). Note that reactive organic gases (ROGs), which are also known as reactive organic compounds (ROCs) or volatile organic compounds (VOCs), and nitrogen oxide (NOx) are not classified as criteria pollutants. However, ROGs and NOx are widely emitted from land development projects and participate in photochemical reactions in the atmosphere to form O3; therefore, NOx and ROGs are relevant to the proposed Project and are of concern in the air basin and are listed below along with the criteria pollutants. As shown in Table 3-1, the SJVAB is in nonattainment for several pollutant standards.

Ozone: Ozone is not emitted directly into the environment but is generated from complex chemical reactions between reactive organic gases (ROG), or non-methane hydrocarbons, and oxides of nitrogen (NOX) that occur in the presence of sunlight. ROG and NOX generators in Tulare County include motor vehicles, recreational boats, other transportation sources, and industrial processes.

PM10: PM10, or particulate matter, is a complex mixture of primary or directly emitted particles, and secondary particles or aerosol droplets formed in the atmosphere by precursor chemicals.

Carbon Monoxide: Carbon Monoxide (CO) is a colorless, odorless, and poisonous gas produced by incomplete burning of carbon in fuels. When CO enters the bloodstream, it reduces the delivery of oxygen to the body's organs and tissues. Health threats are most serious for those who suffer from cardiovascular disease, particularly those with angina or peripheral vascular disease. Exposure to elevated CO levels can cause impairment of visual perception, manual dexterity, learning ability and performance of complex tasks. The primary source of carbon monoxide is automobile use.

Nitrogen Dioxide: Nitrogen Dioxide (NO2) is a brownish, highly reactive gas that is present in all urban atmospheres. NO2 can irritate the lungs, cause bronchitis and pneumonia, and lower

resistance to respiratory infections. Nitrogen oxides are an important precursor both to ozone (O3) and acid rain and may affect both terrestrial and aquatic ecosystems.

The major mechanism for the formation of NO2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO). NO2 plays a key role, together with VOCs, in the atmospheric reactions that produce O3. NO2 forms when fuel is burned at hot temperatures. The two major emission sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

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

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone – One hour	No Federal Standard[f]	Nonattainment/Severe
Ozone – Eight hour	Nonattainment/Extreme[e]	Nonattainment
PM 10	Attainment[c]	Nonattainment
PM 2.5	Nonattainment[d]	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead (Particulate)	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

[a] See 40 CFR Part 81
[b] See CCR Title 17 Sections 60200-60210
[c] On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM10 National Ambient Air Quality Standard (NAAQS) and approved the PM10 Maintenance Plan.
[d] The Valley is designated nonattainment for the 1997 PM2.5 NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5 NAAQS on November 13, 2009 (effective December 14, 2009).
[e] Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).
[f] Effective June 15, 2005, the U.S. Environmental Protection Agency (EPA) revoked the federal 1-hour ozone standard, including associated designations and classifications. EPA had previously classified the SJVAB as extreme nonattainment for this standard. EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.

Table 3-1: San Joaquin Valley Attainment Status. Source: SJVAPCD

Ambient Air Quality

Ambient air quality in Tulare can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. Existing levels of ambient air quality and historical trends and projections in the vicinity of Tulare are documented by measurements made by the SJVAPCD, which also maintains air quality monitoring stations which process ambient air quality measurements.

The purpose of the monitoring station is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS). Ozone and particulate matter (PM10 and PM2.5) are pollutants of particular concern in the SJVAB. The monitoring station located closest to the proposed Project site and most representative of air quality near the proposed Project site is the Visalia – W. Ashland Ave station, located at 2005 West Ashland Avenue, Suite G, which is approximately 5.77 miles north of the Project site. Ambient emission concentrations vary due to localized variations in emissions sources and climate and should be considered "generally" representative of ambient concentrations near the Project site. Air monitoring data was retrieved from both the W. Ashland Avenue location and the N. Church Street stations to provide data from the years 2021 to 2023. Both air monitoring stations in Tulare monitor ozone and particulate matter (PM 2.5 & PM 10), but the W. Ashland Avenue location also monitors nitrogen dioxide and PM 2.5 speciation in addition to the other pollutants previously mentioned. Refer to Table 3-2, Tulare – W. Ashland Ave Air Monitoring Station Data for more information.

*Data from Tulare air monitoring stations not available, San Joaquin Air Basin measurements used.

Pollutant	Averaging Time	Item	Standard	2021	2022	2023
Ozone	1 Hour	Max 1 Hour (ppm)	0.09 ppm	0.119	0.114	0.100
		Days > State Standard (0.09 ppm)	--	14	8	3
	8 Hour	Max 8 Hour (ppm)	0.070 ppm	0.099	0.099	0.087
		Days > State Standard (0.070 ppm)	--	52	64	30
		Days > National Standard (0.070 ppm)	--	51	62	27
		Days > National Standard (0.075 ppm)	--	35	26	8
PM 2.5	24-Hour	Max 24 Hour Average Concentration ($\mu g/m^3$)	--	129.2	48.3	42.9
		Days > National 24-Hour Standard	--	46.6	18.5	6.1
	Annual	Annual average Concentration ($\mu g/m^3$)	12 $\mu g/m^3$	16.6	16.1	13.5
PM 10	24-Hour	Max 24 Hour Average Concentration ($\mu g/m^3$)	50 $\mu g/m^3$	302.1	125.2	107.5
		Days > State 24-Hour Standard	--	151.7*	171.2*	108.5
		Days > National 24-Hour Standard	--	4.7	3.8*	0
	Annual	Annual Average Concentration ($\mu g/m^3$)	20 $\mu g/m^3$	52.8	54.9	39.1

Table 3-2. W. Ashland Avenue & N. Church Street Air Monitoring Stations Data ***Source:*** *California Air Resources Board Air Quality Statistics – iADAM tool*

California and National Air Quality Standards has been included in Table 3-3 below, California and National Ambient Air Quality Standards.

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration[3]	Primary	Secondary
Ozone (03)	1 Hour	0.09 ppm (180 μg/m^3)	--	Same as Primary Standard
	8 Hour	0.070 ppm (137 μg/m^3)	0.075 ppm (147 μg/m^3)	
Respirable Particulate Matter (PM_{10})	24 Hour	50 μg/m	150 μg/m^3	Same as Primary Standard
	Annual Arithmetic Mean	20 μg/m3	--	
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	--	35 μg/m^3	Same as Primary Standard
	Annual Arithmetic Mean	12 μg/m^3	15 μg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	--
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	--
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	--	--
Nitrogen Dioxide (NO_2) [8]	1 Hour	0.18 ppm (339 μg/m^3)	100 ppb (188 μg/m^3)	--
	Arithmetic Mean	0.030 ppm (57 μg/m^3)	53 ppb (100 μg/m^3)	Same as Primary Standard
Sulfur Dioxide	1 Hour	0.25 ppm (655 μg/m^3)	75 ppb (196 μg/m^3)	--
	3 Hour	--	--	0.5 ppm (1300 μg/m^3)
	24 Hour	0.04 ppm (105 μg/m^3)	0.14 ppm (for certain areas)	--
	Annual Arithmetic Mean	--	0.030 ppm (for certain areas)	--
Lead[10,11]	30 Day Average	1.5 μg/m^3	--	--
	Calendar Quarter	--	1.5 μg/m3 (for certain areas)	Same as Primary Standard
	Rolling 3-Month Average	--	0.15 μg/m^3	
Visibility Reducing Particles[12]	8 Hour	See Footnote 1	No National Standards	
Sulfates	24 Hour	25 μg/m^3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m^3)		
Vinyl Chloride[10]	24 Hour	0.01 ppm (26 μg/m^3)		

Table 3-3. Ambient Air Quality Standards; Source: California Air Resources Board (CARB). 2016.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes, such as petroleum refining and chrome-plating operations; commercial operations, such as gasoline stations and dry cleaners; and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute affects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

To date, CARB has designated 244 compounds as TACs. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to a relatively few compounds. CARB identified diesel particulate matter (DPM) as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particulates and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, lightheadedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiovascular diseases. Residential areas are considered sensitive receptors to air pollutions because residents

(including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Children are considered more susceptible to health effects of air pollution due to their immature immune systems and developing organs. As such, schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation.

Regulatory Setting

Regional Attainment Status

The state and federal standards for the criteria pollutants are presented in Section 8.4 of The San Joaquin Valley Unified Air Pollution Control District's 2015 "Guidance for Assessing and Mitigating Air Quality Impacts". These standards are designed to protect public health and welfare. The "primary" standards have been established to protect public health. The "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soils, water, visibility, materials, vegetation, and other aspects of general welfare. The U.S. EPA revoked the national 1-hour ozone standard on June 15, 2005, and the annual PM_{10} standard on September 21, 2006, when a new $PM_{2.5}$ 24-hour standard was established.

CEQA requires lead agencies to determine if each Project of a certain threshold has an impact on the air quality of the area. The Air Quality standards and Greenhouse Gas guidance measures are used to establish levels of air quality impact of a Project. The following regulatory background represents global, federal, state, and local standards and guidance that have been reviewed in this study.

Federal Clean Air Act: The 1977 Federal Clean Air Act (CAA) authorized the establishment of the National Ambient Air Quality Standards (NAAQS) and set deadlines for their attainment. The Clean Air Act identifies specific emission reduction goals, requires both a demonstration of reasonable further progress and an attainment demonstration, and incorporates more stringent sanctions for failure to meet interim milestones. The U.S. EPA is the federal agency charged with administering the Act and other air quality-related legislation. EPA's principal functions include setting NAAQS; establishing minimum national emission limits for major sources of pollution; and promulgating regulations. Under CAA, the NCCAB is identified as an attainment area for all pollutants.

California Clean Air Act: California Air Resources Board coordinates and oversees both state and federal air pollution control programs in California. As part of this responsibility, the California Air Resources Board monitors existing air quality, establishes California Ambient Air Quality Standards, and limits allowable emissions from vehicular sources. Regulatory authority

within established air basins is provided by air pollution control and management districts, which control stationary-source and most categories of area-source emissions and develop regional air quality plans. The Project is located within the jurisdiction of the San Joaquin Valley Air Pollution Control District.

San Joaquin Valley Air Pollution Control District: The SJVAPCD is responsible for enforcing air quality standards in the Project area. The following SJVAPCD rules and regulations may apply to the proposed Project:

- **Rule 2010:** Permits Required. The purpose of this rule is to require any person constructing, altering, replacing, or operating any source operation which emits, may emit, or may reduce emissions to obtain an Authority to Construct or a Permit to Operate. This rule also explains the posting requirements for a Permit to Operate and the illegality of a person willfully altering, defacing, forging, counterfeiting, or falsifying any Permit to Operate.
- **Rule 3135:** Dust Control Plan Fee. All Projects which include construction, demolition, excavation, extraction, and/or other earth moving activities as defined by Regulation VIII (Described below) are required to submit a Dust Control Plan and required fees to mitigate impacts related to dust.
- **Rule 4002:** National Emission Standards for Hazardous Air Pollutants. This rule incorporates the National Emission Standards for Hazardous Air Pollutants from Part 61, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR) and the National Emission Standards for Hazardous Air Pollutants for Source Categories from Part 63, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR).
- **Rule 4101:** Visible Emissions. District Rule 4101 prohibits visible emissions of air contaminants that are dark in color and/or have the potential to obstruct visibility.
- **Rule 4102:** Nuisance. The purpose of this rule is to protect the health and safety of the public.
- **Rule 4601:** Architectural Coatings. The purpose of this rule is to limit VOC emissions from architectural coatings. This rule specifies architectural coatings storage, cleanup, and labeling requirements.
- **Rule 4641:** Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.
- **Rule 4662:** District Rule 4662 was developed to help reduce emissions of volatile organic compounds (VOC) and hazardous air pollutants produced from degreasing operations, in which an enclosure or device is used for removing dirt, oil, grease and other contaminants.

- **Rule 4663:** District Rule 4663 was developed to limit the emissions of volatile organic compounds (VOCs) from organic solvent cleaning and from the storage and disposal of solvents and waste solvent materials.
- **Rule 9510:** Indirect Source Review (ISR). This rule reduces the impact PM10 and NOX emissions from growth on the SJVB. This rule places application and emission reduction requirements on applicable development Projects in order to reduce emissions through onsite mitigation, offsite SJVAPCD administered Projects, or a combination of the two. This Project will submit an Air Impact Assessment (AIA) application in accordance with Rule 9510's requirements.
- **Regulation VIII:** Fugitive PM10 Prohibitions. Regulation VIII is composed of eight rules which together aim to limit PM10 emissions by reducing fugitive dust. These rules contain required management practices to limit PM10 emissions during construction, demolition, excavation, extraction, and/or other earth moving activities.

Tulare County Regional Bicycle Transportation Plan: Tulare County Association of Governments' (TCAG) Tulare County Regional Bicycle Transportation Plan from 2010 has influence on internal and access streets to the Project site. In this Bike Plan there is a proposed Class II bike lane that connects the residential neighborhood to the north, to the Project site along South E Street, and ultimately to a separate Class I bike path along the Project's southern edge on West Paige Avenue. The following objectives and corresponding policies relating to this project are as follows:

- **Objective A:** Implement the Bicycle Transportation Plan, which identifies existing and future needs, and provides specific recommendations for facilities and programs over the next four (4) years and beyond.

  A.2. Establish and maintain uniform standards so major developments are required to make bicycle improvements as development happens.

  A.6. Encourage Plan adoption by all local jurisdictions within Tulare County.
- **Objective B:** Complete a network of bikeways that is feasible, fundable over the life of the Plan, and that serve bicyclists' needs, especially for travel to employment centers, schools, commercial districts, transit terminals and recreational destinations.

  B.1. Encourage jurisdictions to develop a bicycle network that connects neighborhoods, cities and communities.

  B.4. Coordinate with local jurisdictions and developers in Tulare County to ensure appropriate opportunities for bicycle connections are planned, constructed, and maintained.
- **Objective E:** Increase Bicycle Ridership in Tulare County

  E.2. Include bicycle facilities as an integral part of future developments across Tulare County and connect to other existing and proposed bicycle facilities.

  E.4. Provide convenient bicycle access and bicycle parking at schools, parks, neighborhoods, shopping centers, government buildings, and local businesses.

Thresholds of Significance

The impact analysis provided in the discussion below is based on the application of the following CEQA Guidelines Appendix G, which indicates that a project would have a significant impact on air quality if it would:

1. *Conflict with or obstruct implementation of any applicable air quality plan.*
2. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.*
3. *Expose sensitive receptors to substantial pollutant concentrations.*
4. *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.*

The significance criteria established by the applicable air quality management or air pollution control district (i.e., SJVAPCD for the Project) may be relied upon to make the above determinations. According to the SJVAPCD, an air quality impact is considered significant if the proposed Project would violate any ambient air quality thresholds, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SJVAPCD has established thresholds of significance for air quality for construction and operational activities of land use development projects, which is shown in Table 3-4. – SJVAPCD Thresholds of Significance for Criteria Pollutants.

Pollutant/Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM10	15	15	15
PM2.5	15	15	15

Table 3-4. Regional Thresholds for Construction and Operational Emissions; Source: SJVAPCD 2015. Guidance for Assessing and Mitigating Air Quality Impacts.

SJVAPCD has also established the following thresholds of significance for risk exposure to toxic air contaminants to nearby sensitive receptors to the Project site, shown below in Table 3-5.

Carcinogens	Maximally Exposed Individual risk equals or exceeds 20 in one million
Non-Carcinogens	Acute: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual
	Chronic: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual

Table 3-5. Thresholds of Significance for Toxic Air Contaminants (TAC's); Source: SJVAPCD

CO Hotspot Analysis

In addition to the daily thresholds listed above, the proposed Project area would also be subject to the ambient air quality standards, through an analysis of localized CO impacts. The California 1-hour and 8-hour CO standards are:

- 1-hour = 20 parts per million (ppm)
- 8-hour = 9 parts per million (ppm)

The significance of localized impacts depends on whether ambient CO levels in the vicinity of the Project site are above state and federal standards for carbon monoxide. Carbon monoxide concentrations in the San Joaquin Air Basin currently meets the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO).

Methodology

Air pollution emissions can be estimated by using emission factors and examining the level of activity occurring. Emission factors are the emission rate of a pollutant given the activity over time; for example, grams of NOx per horsepower hour. The ARB has published emission factors for on-road equipment and vehicles in the OFFROAD emission model. An air emissions model (or calculator) combines the emission factors and the various levels of activity and outputs the emissions for the various pieces of equipment.

The California Emissions Estimator (CalEEMod), Version 2022.1.1, is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutants and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use Projects. The model quantifies direct emissions from construction and operations, including vehicle use, as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The model incorporates Pavley standards and Low Carbon Fuel standards into the mobile source emission factors. Further, the model identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user. The CalEEMod model was run based off of the following land use assumption:

- Single Family Housing: 171 dwelling units (D.U.s), 32.97 Acres

CalEEMod default values were used to estimate construction trips, trip lengths, emission factors for construction equipment, trips and VMT, architectural coatings, area sources, water and wastewater, and solid waste generation. In order to account for recent changes to new residential building standards (2022 update to Title 24, Part 6 of the California Code of Regulations), no natural gas usage is expected for the proposed Project. This update mandates that new homes constructed from 2023 onward must be equipped with electric systems capable of supporting all-electric appliances, which assisted the transition for developers. Therefore, all default natural gas emission factors were set to zero. Electricity to the Project Site would be provided by Southern California Edison. Other non-defaults included locational context, Project-specific construction equipment and schedule, the exclusion of gas, propane, and electric fireplaces, and wood stoves, and the use of the SJVAPCD district-accepted operational fleet mix for residential projects.

The full CalEEMod Report for the Project can be found in Appendix A.

Discussion

a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact: The SJVAPCD drafted a series of State Implementation Plans (SIP) for the criteria pollutants that are of concern for the San Joaquin Valley Air Basin. The integration of multiple SIPs for each criteria pollutant collectively form the air quality plan for the San Joaquin Valley Air Basin. The most recent SIP is the "2024 Plan for the 2012 PM 2.5 Standard", which focuses on meeting the annual PM 2.5 standard of 12 micrograms/cubic meters originally set in 2012. This SIP includes measures to reduce fine particulate matter emissions and improve air quality by the year 2030. The SJVAPCD has established thresholds in the adopted SIPs and other air quality plans prepared by the Air District. These thresholds are depicted in Tables 3-6 and 3-7 for construction and operation. Criteria for determining consistency with the established standards are whether or not the Project's estimated emissions exceed those thresholds established by the Air District. As long as the Project construction and operational emissions do not exceed the thresholds, the Project would not result in new air violations, delay the timely attainment of air quality standards, or result in increased severity of an existing air quality violation.

Short-Term Emissions

Project construction would generate pollutant emissions from the following construction activities: site preparation, grading, building construction, application of architectural coatings, and paving. The short-term emissions from these activities were calculated using CalEEMod Version 2022.1.1. The full CalEEMod Report can be found in Appendix A, respectively. As shown in

the tables below, Project construction related emissions do not exceed the thresholds for criteria pollutants established by the SJVAPCD.

Construction Phase Modeling Parameters

Construction schedule assumptions and lot sizes were based on the approved site plan for the Project and the standards set forth in the City of Tulare Municipal Code and General Plan. Default values provided in CalEEMod were used where detailed Project information was not available. The construction phases for the Project included site preparation, grading, building construction, paving and architectural coating. Total construction is expected to occur over the span of 2 years (2026-2028). Project-specific values were used for off-road equipment estimations and construction schedule. Default values were used for construction vehicle trips/VMT, VOC content of architectural coatings, and electricity emission factors.

Construction Emissions

Implementation of the Project would generate air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, architectural coatings, and asphalt pavement application. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM10 and PM2.5 emissions. The Project would implement various dust control strategies and would be required to comply with SJVAPCD Regulation VIII to control dust emissions generated during the grading activities. Proposed construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites and unpaved roads two times per day depending on weather conditions. Internal combustion engines used by construction equipment, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of ROGs, NOx, CO, PM10, and PM2.5. However, as a part of Mitigation Measure HRA-1, all off-road equipment will utilize Tier 4 Final Engine Controls to reduce diesel particulate matter (DPM) during the construction phase to ensure that associated health risks of DPM remain *less than significant with mitigation.*

The application of architectural coatings, such as exterior application/interior paint and other finishes, and of asphalt pavement would also produce ROG emissions. Pursuant to Regulation VIII, Rule 8021, Section 6.3, the Project would be required to develop, prepare, submit, obtain approval of, and implement a dust control plan, which would reduce fugitive dust impacts to less than significant for Project construction.

Table 3-6 and table 3-7 presents the estimated emissions generated during construction and operation of the Project. The full CalEEMod estimates can be found in Appendix A of this report.

	CO (tpy)	ROG (tpy)	SOx (tpy)*	NOx (tpy)	PM10 (tpy)	PM2.5 (tpy)
Emissions Generated from Project Construction	**2.51**	**1.09**	**<0.005**	**0.46**	**0.01**	**0.01**
SJVAPCD Thresholds of Significance	**100**	**10**	**27**	**10**	**15**	**15**
*Threshold established by SJVAPCD for SOx, however emissions are reported as SO2 by CalEEMod.						

Table 3-6. Projected Annual Construction Emissions Compared to SJVAPCD Thresholds of Significance. Sources: CalEEMod Outputs; SJVAPCD

	CO (lb/day)	ROG (lb/day)	SOx (lb/day)*	NOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)
Emissions Generated from Project Construction	**7.47**	**2.26**	**0.02**	**0.88**	**0.01**	**0.01**
SJVAPCD Thresholds of Significance	**100**	**10**	**27**	**10**	**15**	**15**
*Threshold established by SJVAPCD for SOx, however emissions are reported as SO2 by CalEEMod.						

Table 3-7. Projected Daily Construction Emissions Compared to SJVAPCD Thresholds of Significance. Sources: CalEEMod Outputs; SJVAPCD

Long-Term Emissions

Implementation of the proposed Project would result in long-term emissions associated with mobile, energy, and area sources. Operational emissions from these factors were calculated using CalEEMod. The full CalEEMod Report can be found in Appendix A of this report.

Operational Phase Modeling Parameters

CalEEMod default vehicle trips were used to model residential vehicle trip rates and lengths during the operational phase. For area sources of emissions under the operational phase, default values were used for all inputs except for the "Hearths", "Energy", "Fleet Mix" sections. Under the "Hearths" section, all values for woodstoves, gas powered fireplaces, electric fireplaces, propane-powered fireplaces, wood-powered fireplaces were set to zero. The proposed Project will not be connected to any natural gas source. As a result, electricity consumption was adjusted to account for the energy that would have been provided by natural gas by converting the natural gas energy use to kilowatt-hours and adding it to the projected electricity consumption provided by CalEEMod. For the "Fleet Mix", the values used were derived from the SJVAPCD District Accepted Fleet Mix for Residential Projects for the operational year. For the remaining sections, including Water, Waste, Refrigerants, operational Off-Road Equipment, and Stationary Sources, default values were used, or the section(s) were set to zero.

Operational Emissions

The Project would involve the construction of 171 low-density residential homes. Operation of the Project would generate ROG, NOx, CO, SOx, PM10, and PM2.5 emissions from mobile sources, including vehicle trips from passenger vehicles; area sources, including the use of consumer products, architectural coatings for repainting, and landscape maintenance equipment; and energy sources, including the use of electric-powered space and water heating. As discussed previously, pollutant emissions associated with long-term operations were quantified using CalEEMod for area, energy, and mobile sources, and were primarily based on CalEEMod default values. Project-generated mobile source emissions were based on the default trip rates provided by CalEEMod. Details of the emissions estimates are provided in Appendix A.

As shown in Table 3-7 above, the Project's operational emissions do not exceed the thresholds established by the SJVAPCD. As shown in Tables 3-6 and 3-7, Project construction and operational emissions would not exceed the SJVAPCD thresholds of significance. Since the Project is not anticipated to exceed any SJVAPCD thresholds of significance, the Project will not conflict with or delay the implementation of the SJVAPCD attainment/implementation plans for criteria pollutants. The impacts resulting from CEQA Thresholds a and b would remain *less than significant.*

b) Would the Project 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 Impact: The SJVAPCD is responsible for bringing air quality in the Tulare Planning Area into compliance with federal and state air quality standards. The significance thresholds and rules developed by the SJVAPCD are designed to prevent Projects from violating air quality standards or significantly contributing to existing air quality violations. As discussed above, neither construction-related emissions nor operation-related emissions will exceed thresholds established by the SJVAPCD. The SJVAPCD has also defined a threshold to determine if an Ambient Air Quality Analysis (AAQA) should be prepared for projects subject to CEQA. An AAQA is required when any construction or operational pollutant exceeds 100 pounds per day (SJVAPCD 2018). Table 8 below indicates the construction and operational emissions for all criteria pollutants in light of the AAQA threshold.

See Tables 3-8 and 3-9 for the anticipated maximum daily construction and operational emissions. As shown above, none of the criteria pollutant emissions are not projected to exceed the AAQA threshold of 100 pounds per day, which was established by the air district.

	CO (tpy)	ROG (tpy)	SOx (tpy)*	NOx (tpy)	PM10 (tpy)	PM2.5 (tpy)
Emissions Generated from Project Construction	**36.2**	**60.8**	**0.06**	**4.48**	**0.12**	**0.12**
SJVAPCD Thresholds of Significance	**100**	**100**	**100**	**100**	**100**	**100**
*Threshold established by SJVAPCD for SOx, however emissions are reported as SO2 by CalEEMod.						

Table 3-8. Projected Annual Operational Emissions Compared to SJVAPCD Thresholds of Significance. Sources: CalEEMod Outputs; SJVAPCD

	CO (lb/day)	ROG (lb/day)	SOx (lb/day)*	NOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)
Emissions Generated from Project Operation	**40.6**	**12.4**	**0.09**	**5.30**	**0.0**	**0.06**
SJVAPCD Thresholds of Significance	**100**	**100**	**100**	**100**	**100**	**100**
*Threshold established by SJVAPCD for SOx, however emissions are reported as SO2 by CalEEMod.						

Table 3-9. Projected Daily Operational Emissions Compared to SJVAPCD Thresholds of Significance. Sources: CalEEMod Outputs; SJVAPCD

Moreover, the Project will comply with all applicable SJVAPCD rules and regulations, which will further reduce the potential for any significant impacts related to air quality as a result of Project implementation. Because these thresholds and regulations are designed to achieve and/or maintain federal and state air quality standards, and the Project is compliant with these thresholds and regulations, the Project will not violate an air quality standard or significantly contribute to an existing air quality violation. The impact is *less than significant.*

c) Would the Project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact With Mitigation: This analysis is based in part on the Health Risk Assessment (HRA) prepared by Core Environmental Consulting (March 2025), provided in Appendix B.

Potential to Impact Sensitive Receptors

Construction Phase. Sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly, or people who are more sensitive than the general population reside, such as schools, hospitals, nursing homes, and daycare centers. Nearby sensitive receptors include Los Tules Middle School, located southwest of the site, and existing single-family residences immediately to the west. The HRA identified 101 receptors, including

both residential and worker receptors, for modeling and analysis within a one-kilometer radius of the Project site.

During the construction phase, the primary air concern from the Project would produce diesel particulate matter (DPM), which has been classified as a carcinogen. Although the release of DPM and other toxic air contaminants may harm sensitive receptors, the extent of the impact is dependent upon the length of exposure. Core Environmental conducted an HRA using CalEEMod, the EPA's American Meteorological Society/EPA Regulatory Model (AERMOD) air dispersion model, and the CARB Hotspots Analysis and Reporting Program (HARP2) Air Dispersion Modeling and Risk Tool (ADMRT) to assess the Health Risks associated with the construction of this Project.

According to the HRA, the maximum construction-related carcinogenic risk at any receptor (Receptor 9, an industrial facility located approximately 26 meters south of the Project Site) would be 3.59 in one million, with a chronic hazard index of 0.0019. These values are well below the SJVAPCD thresholds of significance, which are 20 in one million for cancer risk and 1.0 for the chronic hazard index. See Table 2 from the HRA for reference: The results of this HRA are shown in Table 3-10.

Risk	Carcinogen (max risk in one million)	Chronic Hazard Index
Construction	**3.59**	**0.0019**
SJVAPCD Thresholds of Significance	**20**	**1**
*Calculation based on mitigated emissions. See Appendix B.		

Table 3-10. HRA Results Compared to SJVAPCD Thresholds of Significance

These findings assume implementation of Mitigation Measure HRA-1, which requires the use of Tier 4 Final engine controls for all off-road, diesel-fueled construction equipment. This measure is designed to significantly reduce DPM emission (by approximately 84%) ensuring the project remains below applicable health risk thresholds.

The Project would also be subject to additional regulatory requirements that further limit construction emissions, including anti-idling rules, Indirect Source Review (ISR) compliance, and other standard air quality controls. No additional mitigation is necessary beyond those measures already incorporated. Therefore, consistent with the *CEQA Guidelines 14*, the Project would not expose sensitive receptors to substantial pollutant concentrations, and this impact would be considered *less than significant with mitigation.*

Operational Phase. Once constructed, the Project would consist of 174 single-family homes. Operation of these homes is not expected to produce significant quantities of diesel particulate

matter or other toxic air contaminants. Residential development would result however, in emissions related to architectural coatings (VOCs), transportation-related emissions (NOx, CO, VOCs, PM), and landscape maintenance (if natural gas is used). Residents could experience additional health risk from the use of household cleaners, paints, landscaping equipment, and a number of other hazardous materials. However, these sources would be intermittent, generally more localized to the point of activity, and up to the discretion of individual residents.

While typical residential activities (e.g., vehicle use, landscaping, use of household chemicals) may generate minor emissions, these would be intermittent, localized, and subject to existing federal, state, and local regulations for hazardous materials and air quality. No substantial operational TAC sources are associated with the Project.

Because construction-related emissions will be effectively reduced through mitigation, and because the Project will not result in substantial operational emissions of TACs, the Project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, this impact would be *less than significant with mitigation.*

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact: Some typical construction-related odors would be generated during Project construction. As mentioned in Threshold C, the Project is adjacent to sensitive receptors to the north and west, which may be temporarily affected by such odors. The eastern and southern portions of the Project site are separated by large parcels of agricultural land, with a few industrial facilities located throughout. Due to this, odors will likely not impact a substantial number of people. Additionally, the proposed Project would not include any odor sources identified in Table 6 of the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) and no health risks associated with such odors were identified in the HRA prepared by Core Environmental.

The Project may create objectionable odors, but the odors would be temporary and would not affect a substantial number of people during construction. The operational phase is solely residential development, so there are no objectionable odors that would result from this phase of the Project. The impact is *less than significant.*

Mitigation Measures for Impacts to Air Quality Resources:

Mitigation Measure HRA-1: Implement Tier 4 Engine Controls for all off-road, diesel-fueled equipment during construction. the use of Tier 4 engine controls is consistent with U.S. EPA, CARB, and SJVAPCD goals for implementing mitigation measures that directly reduce DPM emissions. Tier 4 generally requires the addition of emissions control equipment to new engines, such as a Diesel Particulate Filter (DPF).

IV. BIOLOGICAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish & Game or U.S. fish and Wildlife Service?	☐	☑	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☑
c) Have a substantial adverse effect on state or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through director removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
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?	☐	☑	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
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?	☐	☐	☐	☑

The following analysis is based on the Biological Evaluation prepared for the Project by Live Oak Associates in January 2025. The Site was surveyed on January 2, 2025, for its biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law. The Biological Evaluation is available in Appendix C to this report.

Environmental Setting

The Project Site's topography is relatively flat, with elevations around 285 feet National Geodetic Vertical Datum (NGVD). The site is comprised of Colpien loam with 0 to 2 percent slopes, which is classified as moderately well-drained and non-hydric, indicating it is not prone to ponding water or forming vernal pools. The soil has been altered over decades of agricultural use, so its native characteristics are not fully present.

During site surveys, the predominant land use observed was an almond orchard, with ruderal vegetation such as weedy grasses and forbs typical of disturbed agricultural environments. Historical imagery analysis reveals that the site has been used for agricultural purposes since at least 1956.

Regulatory Setting

Federal Endangered Species Act (FESA): The Federal ESA protects plants and animals listed as endangered or threatened by USFWS and the National Marine Fisheries Service (NMFS). Section 9 of the ESA prohibits the taking of listed wildlife, where take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs "removing, possessing, maliciously damaging, or destroying any listed plant on Federal land and removing, cutting, digging up, damaging, or destroying any listed plant on non-Federal land in knowing violation of state law" (16 U.S. Code [USC] 1538). Under Section 7 of ESA, Federal agencies are required to consult with USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its Critical Habitat (see definition of Critical Habitat below). Through consultation and the issuance of a biological opinion (BO), the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity, provided the activity would not jeopardize the continued existence of the species. Section 10 of ESA provides for issuance of incidental take permits where no other Federal actions are necessary provided a habitat conservation plan (HCP) is developed.

The Federal Migratory Bird Treaty Act (FMBTA: 16 USC 703-712): The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for

the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in §§ 3800, 3513, and 3503.5 of the California Fish and Game Code.

Birds of Prey (CA Fish and Game Code Section 3503.5): Sections 3800, 3513, and 3503 of the California Fish and Game Code specifically protect birds of prey. Section 3800 states that it is unlawful to take nongame birds, such as those occurring naturally in California, that are not resident game birds, migratory game birds, or fully protected birds, except when in accordance with regulations of the commission or a mitigation plan approved by CDFW for mining operations. Section 3513 explicitly prohibits taking or possessing any migratory nongame bird as designated in the MBTA. Section 3503 of the California Fish and Game Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Additionally, Subsection 3503.5 prohibits taking, possessing, or destroying any birds and their nests in the orders Strigiformes (owls) or Falconiformes (hawks and eagles). These provisions, along with the Federal MBTA, serve to protect nesting raptors.

Clean Water Act: Section 404 of the Clean Water Act of (1972) is to maintain, restore, and enhance the physical, chemical, and biological integrity of the nation's waters. Under Section 404 of the Clean Water Act, the US Army Corps of Engineers (USACE) regulates discharges of dredged and filled materials into "waters of the United States" (jurisdictional waters). Waters of the US, including navigable waters of the United States, interstate waters, tidally influenced waters, and all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries.

California Endangered Species Act (CESA): The California ESA (California Fish and Game Code §§ 2050- 2116) generally parallels the main provisions of ESA, but unlike its Federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called "candidates" by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." the California ESA allows for take incidental to otherwise lawful development Projects. State lead agencies are required to consult with CDFW to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered, threatened, or candidate species or result in the destruction or adverse modification of essential habitat.

Discussion

a) 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, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant Impact with Mitigation Incorporated: The following analysis is based on the Biological Evaluation prepared for the Project by Live Oak Associates in January 2025 (see Appendix C). On January 2, 2025, the Project Site was surveyed to assess its biotic habitats, the plants and animals present, and any significant habitat values that may be protected under state and federal law.

Special Status Species Assessment

According to the Biological Evaluation, of the 18 special status animal species documented in the vicinity, 15 are considered either absent or unlikely to occur on the Project Site due to the lack of suitable habitat. This is attributed to the Site's disturbed, agricultural use, surrounding urban areas, and its location outside the typical distribution range of these species. Among these 15 species are the Burrowing Owl and the San Joaquin Kit Fox.

- Burrowing Owl (*Athene cunicularia*): This species is absent from the Project Site because the orchards do not provide suitable habitat for the owl's ecology.
- San Joaquin Kit Fox (*Vulpes macrotis mutica)*: Although historically present in the Project vicinity, the San Joaquin Kit Fox is unlikely to occur on the Site. There are eleven recorded occurrences in the California Natural Diversity Database (CNDDB) within 10 miles of the Site—the closest near Tulare in 1992, with the others from the 1970s. The Site is surrounded by residential and municipal developments, orchards, and other land uses incompatible with kit fox ecology. The orchard on the Site does not constitute suitable habitat, and the lack of modern sightings suggests a very low probability of kit fox presence.

Additionally, 12 of the special-status plant species are known to occur in the region. However, none are expected on the Project Site due to decades of extensive agricultural disturbance and current land use.

Potentially Present Species

The remaining three special-status animal species that may occur on the Project site are:

- Loggerhead Shrike (*Lanius ludovicianus*): This species has been repeatedly documented within 5 miles of the Project Site. While orchard trees are not typically used

for nesting by the Loggerhead Shrike, they represent potential nesting habitat, indicating some possibility for nesting on the Site.

- Pallid Bat (*Antrozous pallidus*): Although the Site provides unsuitable roosting habitat, the orchard may serve as a foraging area for this species.
- Western Mastiff Bat (*Eumops perotis californicus*): Similar to the Pallid Bat, this species may forage in the orchard but is unlikely to roost on or near the Site. A CNDDB occurrence of this species was documented in 2002 approximately 5 miles north of the Project site.

Impact Analysis

- Bats (Pallid Bat and Western Mastiff Bat): The Biological Evaluation concluded that these bats might occasionally pass through or forage on the Site but would not roost nearby to be vulnerable to construction-related disturbances or reproductive failure. They are highly mobile while foraging and are expected to avoid active work areas, making injury or mortality from construction activities unlikely. The Project would not adversely affect these species through loss of foraging habitat, as the Site does not offer unique or significant foraging opportunities. Similar or higher-quality foraging habitats are abundant in the vicinity and the region.
- Birds (Loggerhead Shrike): The Biological Evaluation concluded that these species are not expected to be adversely affected by the Project-related loss of habitat. Orchards are not significant habitats for Loggerhead Shrikes, and many square miles of similar or better habitats exist in the region. Therefore, the Project-related habitat loss for these species is considered less than significant under CEQA.
- Migratory Birds: Although unlikely, the Site could be used for foraging by several native avian species protected under the Migratory Bird Treaty Act and related state laws. If construction occurs during the nesting season (February 1–August 31), nesting birds on or adjacent to the Site could face injury, mortality, or nest abandonment due to construction activities or disturbances.

Mitigation Measures

To ensure significant impacts do not occur, the Project will incorporate the following mitigation measures (detailed as Mitigation Measures BIO-1 through BIO-3 at the end of this subsection):

- Construction Timing: Schedule construction activities outside the nesting season when feasible to minimize disturbances.
- Preconstruction Surveys: Conduct surveys prior to construction to identify any active nests on or near the Site.
- Avoidance of Active Nests: Establish buffer zones around active nests to prevent disturbance until the young have fledged.

Implementing these measures would reduce potential impacts to nesting birds and raptors, including the Loggerhead Shrike and Swainson's Hawk, to a less-than-significant level under

CEQA. This approach ensures compliance with state and federal laws protecting these species. Therefore, with mitigation incorporated, the impacts are considered *less than significant.*

b) Would the Project 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 US Fish and Wildlife Service?

No Impact: No riparian habitats, or other sensitive natural communities were found on the Project Site. The Project Site consists of an almond orchard and associated infrastructure, with no presence of riparian zones or communities classified as sensitive by local, regional, state, or federal regulations. As a result, the development of the proposed Project would not adversely affect any riparian habitat or sensitive natural community as identified by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS). Therefore, *no impact* is anticipated.

c) Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through director removal, filling, hydrological interruption, or other means?

No Impact: The Project Site does not contain sensitive natural communities or state and federally protected wetlands. Additionally, there are no jurisdictional water features on the site. Therefore, the Project would not impact any state or federally protected wetlands, and *no impact* would occur.

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?

Less Than Significant Impact with Mitigation Incorporated: Wildlife movement corridors are routes that animals regularly and predictably follow during seasonal migration, dispersal from native ranges, daily travel within home ranges, and inter-population movements. Movement corridors in California are typically associated with valleys, rivers and creeks supporting riparian vegetation, and ridgelines. Wildlife movement corridors are absent from the Project Site. The surrounding area includes a residential neighborhood to the north and west. Consequently, the Project would not significantly interfere with the movement of any resident or migratory fish or wildlife species, nor would it impact established wildlife corridors or impede the use of wildlife nursery sites.

Although unlikely, the Project Site could be utilized for foraging by several native avian species protected under the Migratory Bird Treaty Act and related state laws. If construction activities occur during the nesting season (February 1–August 31), birds nesting on-site or adjacent to it could face injury or mortality from construction activities or disturbances that might lead to nest abandonment. Therefore, the Project would incorporate mitigation measures to ensure

significant impacts do not occur. Specifically, mitigation measures regarding construction timing, preconstruction surveys, and the avoidance of active nests as Mitigation Measure BIO-1 through BIO-3, respectively, as detailed at the end of this subsection. Implementation of these measures would reduce potential project impacts to nesting birds and raptors, including the loggerhead shrike, to a less than significant level under CEQA and facilitate compliance with state and federal laws protecting these species. Therefore, impacts would be *less than significant with mitigation incorporated.*

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact: The City of Tulare General Plan includes policies for the preservation and maintenance of Oak (Quercus sp.) species and their habitats, along with regulations for the maintenance of street trees along city roads. No protected tree species are present on the Project Site. Therefore, *no impact* would occur.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or another approved local, regional, or state habitat conservation plan?

No Impact: The Project Site is not located within the boundaries of any adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, *no impact* would occur.

Mitigation Measures for impacts to Biological Resources

Mitigation Measure BIO-1 (Construction Timing). If feasible, future construction activities shall take place entirely outside of the avian nesting season, defined as February 1 to August 31.

Mitigation Measure BIO-2 (Preconstruction Surveys). If construction must occur between February 1 and August 31, a qualified biologist shall conduct surveys for active bird nests within 7 days prior to the start of work during this period. The survey area shall encompass the Project Site and accessible surrounding lands within a quarter mile for nesting Swainson's hawks, 500 feet for other nesting raptors, and 250 feet for nesting birds.

Mitigation Measure BIO-3 (Avoidance of Active Nests). Should any active nests be discovered in or near proposed construction zones, the biologist shall identify a suitable construction-free buffer around the nest. This buffer shall be identified on the ground with flagging or fencing and shall be maintained until the biologist has determined that the young have fledged and are capable of foraging independently.

V. CULTURAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☑	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☑	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☑	☐	☐

The following analysis is based on the Cultural Resources Technical Memorandum prepared for the Project by Taylored Archaeology in January 2025. The Technical Memorandum is available in Appendix D to this report.

Environmental Setting

The history of European settlement in the Tulare County area focused primarily on farming and ranching. European settlement did not occur until the arrival into southern California of land-based expeditions originating from Spanish Mexico starting in the 1760s. European-American settlement of this region began in 1851 with the building of Fort Miller on the San Joaquin River. Unfortunately, hostility grew between American settlers and Native inhabitants, which initially prevented widespread settlement of the area. By the 1860s, the arrival of waves of additional European-American settlers subjugated and removed the Native inhabitants, and the European-American settlers began to inhabit more regions.

In April 1852, Tulare County was created, with the county seat initially located at Woodsville. In 1853 the county seat was removed to Fort Visalia, located in the area bounded by Oak, Center, Garden and Bridge streets. In 1872, the Southern Pacific Railroad founded the City of Tulare by beginning construction of the railroad within Tulare County, connecting the San Joaquin Valley with markets in the north and east. During this time, valley residents constructed a series of water conveyance systems (canals, dams, and ditches) across the valley. Ample water supplies and assured rail transport were particularly important for the new colonies making their living off fruit, grain, and dairy farming.

A Cultural Resources Records Search was conducted by Taylored Archaeology in January 2025 for the Santa Fe West Subdivision Map Project in Tulare County, California. The search included a half-mile radius around the Project area. Three previous cultural resources reports were identified within the Project area, none of which overlapped with the Project boundary. Additionally, four reports were identified within a half-mile radius, with three cultural resources being recorded in this radius: a segment of Railroad Ditch adjacent to the east and south, the Southern Pacific Railroad adjacent to the east, and a segment of the Liberty Ditch.

The search found no previously recorded cultural resources within the Project site itself. Furthermore, a Sacred Lands File search conducted by the Native American Heritage Commission revealed negative results for sensitive or sacred tribal cultural resources in the project area. A full account of the records search findings can be found in Appendix C. As part of the process of identifying tribal cultural resources in or near the Project Site, the City sent a letter via certified mail on March 5, 2025, to the Santa Rosa Rancheria Tachi Yokut Tribe inviting the tribe to consult with the City regarding this Project. The 30-day response window closed on April 6, 2025. No response or request for consultation was received.

Regulatory Setting

This report defines "cultural resources" as prehistoric or historical archaeological Sites and historical objects, buildings, or structures. Following 36 Code of Federal Regulations (CFR) §60.4, "historical" in this report applies to cultural resources at least 50 years old. The significance or importance of a cultural resource is dependent upon whether the resource qualifies for inclusion at the local level in a local register of historical resources, at the state level in the California Register of Historical Resources (CRHR), or the Federal level in the National Register of Historic Places (NRHP). Cultural resources that are determined to be eligible for inclusion in the CRHR are called "historical resources" (California Code of Regulations [CCR] 15064.5[a]). Under this statute, the determination of eligibility is partially based on the consideration of the criteria of significance as defined in 14 CCR 15064.5(a)(3). Cultural resources eligible for the NRHP are deemed "historic properties."

National Historic Preservation Act

The National Historic Preservation Act was adopted in 1966 to preserve historical and archeological Sites in the United States. The Act created the National Register of Historic Places, the list of National Historic Landmarks, and the State Historic Preservation offices.

California Environmental Quality Act

Under CEQA, a historical resource is a resource listed in, or determined to be eligible for listing in, the CRHR. Historical resources may include, but are not limited to, "any object, building, structure, Site, area, place, record, or manuscript which a lead agency determines to be historically or archaeologically significant" (PRC §5020.1[j]). In addition, a resource included in a local register of historical resources or identified as significant in a local survey conducted per the state guidelines is also considered a historic resource under California Public Resources Code (PRC) Section 5020.1.

CEQA details appropriate measures for the evaluation and protection of cultural resources in §15064.5 of the CEQA Guidelines. According to CEQA guidelines §15064.5 (a)(3), the criteria for listing on the CRHR includes the following:

1. *It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.*
2. *It is associated with the lives of persons important in our past.*
3. *Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.*
4. *Has yielded, or may be likely to yield, information important in prehistory or history.*

According to CEQA guidelines §21074 (a)(1), criteria for tribal cultural resources includes the following:

Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

1. *Included or determined to be eligible for inclusion in the California Register of Historical Resources.*
2. *Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.*

Protection of cultural resources within California is additionally regulated by PRC §5097.5, which prohibits the destruction, defacing, or removal of any historic or prehistoric cultural features on land under the jurisdiction of State or local authorities.

Health and Safety Code, Section 7050.5

Section 7050.5 of the California Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission (NAHC). CEQA Guidelines (Public Resources Code Section 5097) specify the procedures to be followed when discovering human remains on non-Federal land. The disposition of Native American burials falls within the jurisdiction of the NAHC.

City of Tulare General Plan

The General Plan includes the following goals, objectives, and policies that are potentially applicable to the proposed Project:

- **LU-P13.15 Architectural Heritage.** The City shall encourage expressions of its cultural and historic heritage in key central area architectural and other physical design

elements (such as murals and/or community art), as well as through encouragement of related cultural events and celebrations.

Goal COS-5 To manage and protect sites of cultural and archaeological importance for the benefit of present and future generations.

- COS-P5.1 Archaeological Resources. The City shall support efforts to protect and/or recover archaeological resources.
- COS-P5.2 Evaluation of Historic Resources. The City shall use appropriate State and Federal standards in evaluating the significance of historical resources that are identified in the city.
- COS-P5.3 Historic Preservation. The City shall encourage the preservation of historic residences and neighborhoods wherever appropriate.
- COS-P5.4 Historic Buildings. The City shall encourage the preservation and adaptive use of historic buildings, particularly in the downtown.
- COS-P5.5 Historic Structures and Sites. The City shall support public and private efforts to preserve, rehabilitate, and continue the use of historic structures, sites, and districts. Where applicable, preservation efforts shall conform to the current Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Building.
- COS-P5.6 Protection of Resources with Potential State or Federal Designations. The City shall encourage the protection of cultural and archaeological sites with potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources. Such sites may be of statewide or local significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values.
- COS-P5.7 State Historic Building Code. The City shall utilize the State Historic Building Code for designated properties.
- COS-P5.8 Design Compatibility with Historic Structures. The City shall ensure design compatibility of new development within close proximity to designated historic structures and neighborhoods.
- COS-P5.9 Discovery of Archaeological Resources. In the event that archaeological/ paleontological resources are discovered during site excavation, grading, or construction, the City shall require that work on the site be suspended within 100 feet of the resource until the significance of the features can be determined by a qualified archaeologist/ paleontologist. If significant resources are determined to exist, an archaeologist shall make recommendations for protection or recovery of the resource. City staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the City.
- COS-P5.10 Discovery of Human Remains. Consistent with Section 7050.5 of the California Health and Safety Code and CEQA Guidelines (Section 15064.5), if human remains of Native American origin are discovered during project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall

within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). If any human remains are discovered or recognized in any location on the project site, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

- The Tulare County Coroner/Sheriff has been informed and has determined that no investigation of the cause of death is required; an
- If the remains are of Native American origin,
  - The descendants of the deceased Native Americans have made a timely recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resources Code Section 5097.98.
  - The Native American Heritage Commission was unable to identify a descendant, or the descendant failed to make a recommendation within 24 hours after being notified by the commission, or
  - The landowner or his or her authorized representative rejects any timely recommendations of the descendent, and mediation conducted by the Native American Heritage Commission has failed to provide measures acceptable to the landowner.

- COS-P5.11 Impact Mitigation. If preservation of cultural/historical resources is not feasible, the City shall make every effort to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records.
- COS-P5.12 Mitigation Monitoring for Historical Resources. The City shall develop standards for monitoring mitigation measures established for the protection of historical resources prior to development.
- COS-P5.13 Alteration of Sites with Identified Cultural Resources. When planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. The City shall permit development in these areas only after a site-specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and mitigation measures proposed for any impacts the development may have on the resource.
- COS-P5.14 Education Program Support. The City shall support local, state, and national education programs on cultural and archaeological resources.
- COS-P5.15 Solicit Input from Local Native Americans. The City shall solicit input from the local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.
- COS-P5.16 Confidentiality of Archaeological Sites. The City shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect resources that are determined to exist. An archaeologist/paleontologist shall make recommendations for protection or recovery

of the resource. City staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the City.

- COS-P5.17 Cooperation of Property Owners. The City shall encourage the cooperation of property owners to treat cultural resources as assets rather than liabilities, and encourage public support for the preservation of these resources.
- COS-P5.18 Archaeological Resource Surveys. Prior to project approval, the City shall require project applicant to have a qualified archaeologist conduct the following activities: (1) conduct a record search at the Regional Archaeological Information Center located at California State University Bakersfield and other appropriate historical repositories, (2) conduct field surveys where appropriate, and (3) prepare technical reports, where appropriate, meeting California Office of Historic Preservation Standards (Archaeological Resource Management Reports).

Discussion

a) Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less Than Significant Impact: A Cultural Resources Records Search was conducted by Taylored Archaeology in January 2025 for the Santa Fe West Tentative Subdivision Map Project. The search revealed three reports within the Project area: Report #TU-00041, which covered a proposed pipeline corridor along State Route 99, approximately 0.92 miles east of the Project Site, Report #TU-00102, a cultural resources inventory report for the proposed Mojave Northward Expansion Project Report, and #TU-01190, a narrative book unrelated to the Project area. Additionally, four studies were identified within a 0.5-mile radius of the Project boundary, but none overlapped the Project Site. No cultural resources were recorded within the Project boundary. Three were found to be located within a 0.5-mile radius, but the Project was found to not impact these identified resources.

No historical resources were identified at the site, nor would historical resources be impacted by implementation of the project. Therefore, impacts regarding historical resources would be *less than significant.*

b) Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant Impact with Mitigation Incorporated: There are no known archaeological resources located within the Project Site area. While past agricultural activities may have potentially destroyed or obscured ground surface evidence of archaeological resources within the Project boundary, intact archaeological resources related to prior occupation of the area may potentially exist below the ground surface. As such, there exists the potential, albeit unlikely, for inadvertent discovery of a previously unknown archaeological resource at the Project Site during construction activities. Mitigation Measure CUL-1 is required

to ensure inadvertent discovery of a resource does not result in a significant impact. Therefore, impacts would be *less than significant with mitigation incorporated.*

c) Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact with Mitigation Incorporated: There are no known human remains buried in the Project vicinity nor has the Project Site been used as a cemetery. However, albeit unlikely, if human remains are unearthed during development, Mitigation Measure CUL-2 is required to ensure impacts are not significant. Therefore, impacts would be *less than significant with mitigation incorporated*.

Mitigation Measures for Impacts on Cultural Resources

Mitigation Measure CUL-1: If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (NPS 1983) shall be contacted immediately to evaluate the find. If the discovery proves to be an important resource under CEQA, additional work such as data recovery excavation and Native American consultation shall be completed to mitigate any adverse effects.

Mitigation Measure CUL-2: If human remains are uncovered during construction, the Tulare County Coroner shall be notified to investigate the remains and arrange proper treatment and disposition. If the remains are identified on the basis of archaeological context, age, cultural associations, or biological traits to be those of a Native American, California Health and Safety Code 7050.5 and PRC 5097.98 require that the coroner notify the Native American Heritage Commission within 24 hours of discovery. The Native American Heritage Commission will then identify the Most Likely Descendent who will be afforded an opportunity to make recommendations regarding the treatment and disposition of the remains. The Most Likely Descendent shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

VI. ENERGY

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	☐	☐	☑	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☑

The following analysis is based on the Air Quality, Greenhouse Gas, and Energy Assessment available in Appendix A to this report.

Environmental Setting

Electricity

According to the U.S. Energy Information Administration, California used approximately 255,224 gigawatt hours of electricity in 2018 (EIA 2024a). By sector in 2017, commercial uses utilized 46% of the state's electricity, followed by 35% for residential uses and 19% for industrial uses (EIA 2024a). Electricity usage in California for different land uses varies substantially by the types of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita in the residential sector is lower than any other state except Hawaii (EIA 2024b).

Southern California Edison (SCE) provides electricity to the Project. SCE, a subsidiary of Edison International, serves approximately 180 cities in 11 counties across central and Southern California. SCE receives electric power from a variety of sources. According to the 2022 SCE Power Content Label, renewable energy accounts for 33.2% of the overall energy resources, with geothermal resources at 5.7%, wind power at 9.8%, eligible hydroelectric sources at 0.5% and solar energy at 17% (SCE 2022).

Natural Gas

According to the U.S. Energy Information Administration, California used approximately 2,154,030 million cubic feet of natural gas in 2019 (EIA 2024a). Natural gas is used for cooking, space heating, generating electricity, and as an alternative transportation fuel. The majority of California's natural gas customers are residential and small commercial customers (core

customers), which accounted for approximately 35% of the natural gas delivered by California utilities in 2018 (CPUC n.d.). Large consumers, such as electric generators and industrial customers (noncore customers), accounted for approximately 65% of the natural gas delivered by California utilities (CPUC n.d.). The CPUC regulates California natural gas rates and natural gas services, including in-state transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. Biogas (e.g., from wastewater treatment facilities or dairy farms) is just beginning to be delivered into the gas utility pipeline systems, and the state has been encouraging its development (CPUC n.d.). In 2019, PG&E delivered approximately 4.9 billion therms of natural gas to the region, with 3 billion therms for non-residential use and 1.9 billion therms for residential use (CEC 2020a, 2020b). No natural gas usage is proposed during the operational phase of the Santa Fe West Property development.

Petroleum

According to the U.S. Energy Information Administration, California used approximately 681 million barrels of petroleum in 2018, with the majority (584 million barrels) used for the transportation sector (EIA 2024b). This total annual consumption equates to a daily use of approximately 1.9 million barrels of petroleum. There are 42 U.S. gallons in a barrel, so California consumes approximately 78.4 million gallons of petroleum per day, adding up to an annual consumption of 28.7 billion gallons of petroleum. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. California has implemented policies to improve vehicle efficiency and to support use of alternative transportation, which are described below. As such, the CEC anticipates an overall decrease of gasoline demand in the state over the next decade (CEC 2018).

<u>Regulatory Setting</u>

Federal

Federal Energy Policy and Conservation Act: In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 FR 62624–63200). In 2020, the Trump Administration sought to lower CAFE standards issued by the Obama Administration to require, for example, a fleet average of 40 mpg by 2026 instead of 55 mpg by 2025. On April 1, 2022, the Department of Transportation updated CAFE standard back up near Obama Administration levels, with a new fleet average of 49 mpg by 2026. Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Energy Independence and Security Act of 2007: On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting

increased corporate average fuel economy standards for motor vehicles, the EISA includes the following other provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and lighting efficiency standards (Sections 301–325)
- Building energy efficiency (Sections 411–441)

The RFS requires ever-increasing levels of renewable fuels to replace petroleum (EPA 2024). The U.S. Environmental Protection Agency (EPA) is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the Energy Policy Act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that laid the foundation for achieving significant reductions of greenhouse gas (GHG) emissions through the use of renewable fuels, for reducing imported petroleum, and for encouraging the development and expansion of our nation's renewable fuels sector. The updated program (RFS2) includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green" jobs.

State

Warren–Alquist Act: The California Legislature passed the Warren–Alquist Act in 1974, which created the CEC. The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for buildings constructed and appliances sold in California.
- The act removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high demand projections, and transferred it to a more impartial CEC.
- The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

State of California Energy Action Plan: The CEC and CPUC approved the first State of California Energy Action Plan in 2003. The plan established shared goals and specific actions to ensure the provision of adequate, reliable, and reasonably priced electrical power and natural gas supplies; it also identified cost-effective and environmentally sound energy policies, strategies, and actions for California's consumers and taxpayers. In 2005, the CEC and CPUC adopted a second Energy Action Plan to reflect various policy changes and actions of the prior 2 years. At the beginning of 2008, the CEC and CPUC determined that it was not necessary or productive to prepare a new energy action plan. This determination was based, in part, on a finding that the state's energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed below). Rather than produce a new energy action plan, the CEC and CPUC prepared an "update" that examines the state's ongoing actions in the context of global climate change.

Assembly Bill 32 (2006) and Senate Bill 32 (2016): In 2006, the State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the Legislature enacted Senate Bill (SB) 32, which extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40% below 1990 levels by 2030. In accordance with AB 32 and SB 32, the California Air Resources Board (CARB) prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focus on increasing energy efficiencies, using renewable resources, and reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the state's GHG emissions reduction planning framework creates co-benefits for energy-related resources.

California Building Standards: Part 6 of Title 24 of the California Code of Regulations (CCR) was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and nonresidential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically to incorporate and consider new energy efficiency technologies and methodologies. The current Title 24, Part 6 standards, referred to as the 2019 Title 24 Building Energy Efficiency Standards, became effective on January 1, 2020. In general, single-family

residences built to the 2019 standards are anticipated to use approximately 7% less energy due to energy efficiency measures than those built to the 2016 standards; once rooftop solar electricity generation is factored in, single-family residences built under the 2019 standards use approximately 53% less energy than those under the 2016 standards (CEC 2019). Nonresidential buildings built to the 2019 standards are anticipated to use an estimated 30% less energy than those built to the 2016 standards (CEC 2019). Title 24 also includes Part 11, the California Green Building Standards (CALGreen). CALGreen establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The 2019 CALGreen standards are the current applicable standards. For nonresidential projects, some of the key mandatory CALGreen 2019 standards involve requirements related to bicycle parking, designated parking for clean air vehicles, electric vehicle charging stations, shade trees, water conserving plumbing fixtures and fittings, outdoor potable water use in landscaped areas, recycled water supply systems, construction waste management, and excavated soil and land clearing debris (24 CCR Part 11).

Local

City of Tulare General Plan: The 2030 General Plan includes the following policies related to energy use and efficiency in the Air Quality and Greenhouse Gases Element and the Circulation Element:

- T-P-41 - Integrate the bicycle transportation system into new development and infill redevelopment. Development shall provide short term bicycle parking and long-term bicycle storage facilities, such as bicycle racks, stocks, and rental bicycle lockers. Development also shall provide safe and convenient bicycle and pedestrian access to high activity land uses such as schools, parks, shopping, employment, and entertainment centers.
- T-P-53 - Develop flexible parking requirements in the zoning ordinance for development proposals based on “best practices” and the proven potential to reduce parking demand.
- AQ-P-12 - Support the implementation of Voluntary Emissions Reduction Agreements (VERA) with the San Joaquin Valley Air Pollution Control District (the District) for individual development projects that may exceed District significance thresholds.
- AQ-P-16 - Support State efforts to reduce greenhouse gases and emissions through local action that will reduce motor vehicle use, support alternative forms of transportation, require energy conservation in new construction, and energy management in public buildings, in compliance with AB 32.

Thresholds and Methodology

The impact analysis provided in this section is based on the application of the following California Environmental Quality Act (CEQA) Guidelines Appendix G, which indicates that a Project would have a significant impact on energy use if it would:

1. *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?*
2. *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

The methodology applied to assess the Project's potential impacts involved the use of the California Emissions Estimator Model (CalEEMod) Version 2022.1.1 (CAPCOA 2022) that can be found in Appendix A. For the construction phase, energy use would be attributed to worker trips and operation of construction equipment. Diesel and gasoline would be utilized to fuel on and off-road construction equipment during this phase of the Project. Energy use associated with the operational phase would result from residential vehicle trips (mobile sources) and activities in homes that consume energy in the form of electricity. No natural gas will be utilized by the proposed residential buildings, so all building activities would utilize electricity. Although electricity generation produces criteria pollutants and GHGs, these are emitted offsite at fossil fuel power plants and these pollutants are not attributed to individual buildings or electricity users. The power plants responsible for electricity generation are existing stationary sources permitted by air districts and/or the USEPA, criteria pollutant emissions are generally associated with the power plants themselves. These criteria pollutant emissions are subject to local, state and federal control measures. (CAPCOA 2022)

Unlike criteria pollutants, GHG emissions at these offsite power plants are not subject to the same stationary source permitting requirements and it is difficult to mitigate GHG emissions associated with them. Therefore, the most effective way to control GHGs from power plants is to reduce electricity demand by electricity users, which can be mitigated through building efficiency measures. As a result, the CalEEMod program calculates GHG emissions (not criteria pollutant emissions) from regional power plants associated with building electricity use. To reduce GHG emissions and energy usage, the Project would comply with the provisions of Part 6 of the Title 24 California Code of Regulations, which is the Building Energy Efficiency Standards (Energy Code). The California Energy Commission implements Title 24, Part 6 to increase the energy efficiency of newly constructed residential buildings. The latest Energy Code is for 2023, which was the 2022 Energy Code (CAPCOA 2022).

When calculating energy use associated with mobile sources and residential buildings, CalEEMod defaults were used for vehicle trips lengths, vehicle trip counts, and electricity consumption. Natural gas emission factors were set to zero to account for the absence of direct natural gas consumption on the Project site. In order to calculate energy consumption from mobile sources in MBTUs, 2023 gasoline/diesel miles per gallon (MPG) factors provided by the EMFAC2017 Emissions Inventory were used. To simplify the estimation process for the construction phase, it was assumed that all worker vehicles used gasoline as fuel source and

all vendor vehicles used diesel as a fuel source. Project-specific construction equipment was entered using data modeled from previous, completed construction projects. Energy Calculations for both construction and operational phases are provided in Appendix A.

Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Less Than Significant Impact: The proposed Project includes the construction and operation of 171 units of single-family residential housing. During Project construction, there would be an increase in energy consumption related to worker trips and the operation of construction equipment. This increase in energy use would be temporary and limited to the greatest extent feasible through compliance with local, state, and federal regulations. Vehicle fuel consumption during Project construction was estimated based on the assumed construction schedule, vehicle trip lengths, and the number of workers per construction phase as provided by CalEEMod Version 2022.1.1, and Year 2024 gasoline/diesel MPG factors provided by EMFAC2017. Detailed energy calculations are provided in Appendix A. To simplify the estimation process, it was assumed that all worker vehicles used gasoline as a fuel source and all off-road equipment, hauling vehicles, and vendor vehicles used diesel as a fuel source. Table 3-11, below, provides gasoline and diesel fuel used by off-road and on-road vehicles/construction equipment during each phase of Project construction.

Off-Road Equipment Fuel (Diesel)		On-Road Vehicle Fuel				Total MMBTU
		Diesel		Gasoline		
Gallons	MMBTU	Gallons	MMBTU	Gallons	MMBTU	
172,483	23,975	40,260	5,596	17,182	1,995	31,566
Total Construction Energy Use						31,566
Average Annual Construction Energy Use						21,044

Table 3-11. On & Off-Road Mobile Fuel Use Generated by Construction Activities, Sources: *CalEEMod (v.2022.1.1); EMFAC2017 (See Appendix A)*

While construction of the proposed Project would result in additional energy consumption, this energy use is not unnecessary or inefficient. This energy use is justified by the energy-efficient nature of the proposed Project, which would be entirely reliant on electricity, rather than natural gas for all operational components (in-home appliances). The California Energy Commission is responsible for the development and enforcement of specific strategies to create energy efficient buildings for new residential development. These strategies are implemented through Title 24, Part 6 of the California Building Code, which requires developers to include certain measures (including solar panels on all new residential buildings) to achieve required building efficiency standards.

Mobile Fuel Use	**Gal/Year**		**MMBTU**
	Gasoline	149,123	17,937
	Diesel	22,956	3,154
Electricity Use	**kWh/Year**		**MMBTU**
	3,308,188		11,288
	kBTU/Year		**MMBTU**
	6,352,914		6,353
Total Operational Energy Use			**Total MMBTU**
			38,732

Table 3-12. On-Road Mobile Fuel Use and Electricity Use Generated by Operational Activities; Sources: CalEEMod (v. 2022.1.1); EMFAC2021 (See Appendix A)

As shown in Table 3-12, annual energy use associated with Project operations would total approximately 29,958 MMBTUs per year. Annual energy use is expected to decrease over time as a result of improvements in vehicle fuel efficiency standards. The proposed Project would be subject to energy conservation requirements in the California Energy Code (24 CCR Part 6, California's Energy Efficiency Standards for Residential and Nonresidential Buildings) and the California Green Building Standards Code (CALGreen) (24 CCR Part 11). Adherence to Title 24 requirements would ensure that the Project would not result in wasteful or inefficient use of energy resources due to building operation or vehicle trips. Additionally, the operational component of the Project will not utilize natural gas directly and will rely entirely on electricity.

Because construction-related energy use would be temporary and limited to the greatest extent feasible through consistency with Federal, State, and local policies related to energy conservation, and operation of the Project would comply with all energy efficiency standards required under Title 24, Part 6, and these standards were specifically developed to achieve net zero energy for residential Projects, it can be presumed that the Project would not result in inefficient, unnecessary, or wasteful energy use. The impact is *less than significant.*

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact: The proposed Project would not conflict with or obstruct any state or local plans for renewable energy or energy efficiency. The construction and operation of the Project would comply with applicable energy efficiency regulations included in CALGreen, Title 24, CARB, and the Tulare General Plan. The proposed Project would comply with all state and local policies related to energy efficiency and therefore, *no impact* would occur.

VII. GEOLOGY AND SOILS

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☑
ii) Strong seismic ground shaking?	☐	☐	☑	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☑	☐
iv) Landslides?	☐	☐	☐	☑
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☑	☐
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?	☐	☐	☑	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct and indirect risks to life or property?	☐	☐	☐	☑
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☑
f) Directly or indirectly destroy a unique paleontological resource or Site or unique geologic feature?	☐	☑	☐	☐

Environmental Setting

Geologic Stability and Seismic Activity

- **Seismicity:** Tulare County is a low to moderate earthquake hazard area. The San Andreas Fault is the longest and most significant fault zone in California and is approximately 40 miles west of the Tulare County Boundary. Owens Valley fault zone is the only active fault located within Tulare County. Section 5 of the 2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan identifies the Project Site as likely to experience low to moderate shaking from earthquakes and may experience higher levels if an earthquake were to occur in or near the County. Ground shaking can result in other geological impacts, including liquefaction, landslides, lateral spreading, subsidence, or collapse.
- **Liquefaction**: Liquefaction is a phenomenon whereby unconsolidated and/or near-saturated soils lose cohesion and are converted to a fluid state because of severe vibratory motion. The relatively rapid loss of soil shear strength during strong earthquake shaking results in temporary, fluid-like behavior of the soil, which can result in landslides and lateral spreading. No specific countywide assessment of liquefaction has been performed; however, the 2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan identifies the risk of liquefaction within the County as low because the soil types in the area either too coarse or too high in clay content to be suitable for liquefaction.
- **Landslides**: Landslides refer to a wide variety of processes that result in the downward and outward movement of soil, rock, and vegetation under gravitational influence. Landslides can be caused by both natural and human-induced changes in slope stability and often accompany other natural hazard events, such as floods, wildfire, or earthquake. Eastern portions of the County are at a higher risk of landslides where steep slopes are present. However, most of the County, including the proposed Project Site, is at low risk of landslides and mudslides because of its flat topography. The 2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan states that occurrence of landslide events within populated areas of Tulare County is unlikely.
- **Subsidence**: Land Subsidence refers to the vertical sinking of land as a result of either manmade or natural underground voids. Subsidence has occurred throughout the Central Valley at differing rates since the 1920's as a result of groundwater, oil, and gas withdrawal. During drought years, Tulare County is prone to accelerated subsidence, with some areas sinking up to 28 feet. Although western portions of the County show signs of deep and shallow subsidence, the majority of the County, including the proposed project site, is not considered to be at risk of subsidence related hazards.

Soils Involved in the Project: The proposed Project Site contains two soil types, according to the US Department of Agriculture (USDA) Web Soil Survey. The properties of the soil are described briefly below, as defined by the USDA:

- **Colpien loam, 0 to 2 percent slopes:** The Colpien series consists of very deep, moderately well drained soils formed in alluvium derived primarily from granitic rock. The Copien series is a member of a fine-loamy, mixed, superactive, thermic calcic Haploxerolls taxonomic class and are often under irrigated cultivation.

Regulatory Setting

California Building Code: The California Building Code contains general building design and construction requirements relating to fire and life safety, structural safety, and access compliance. CBC provisions provide minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures and certain equipment.

City of Tulare General Plan: The Safety Element of the City of Tulare General Plan includes the following goals and policies regarding soils and geology.

- SAF-P1.4 Building and Codes. Except as otherwise allowed by State law, the City shall ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).
- SAF-P1.7 Site Investigations. The City shall require applicants to conduct site investigations in areas planned for new development to determine susceptibility to landslides, subsidence/settlement, contamination, and/or flooding.

Goal SAF-4 To protect people and property from seismic and geotechnical hazards.

- SAF-P4.4 Alquist-Priolo Act Compliance. The City shall not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones (pursuant to and as determined by the Alquist-Priolo Earthquake Fault Zoning Act; Public Resources Code, Chapter 7.5) unless the specific provisions of the Act and Title 14 of the California Code of Regulations have been satisfied.
- SAF-P4.5 Subsidence. The City shall confirm that development is not located in any known areas of active subsidence. If urban development may be located in such an area, a special safety study will be prepared and needed safety measures implemented.

Discussion

a) Would the Project 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: According to the Tulare County Multi-Hazard Mitigation Plan, no active faults underlay the Project Site. Although the Project is in an area of relatively low seismic activity, the Project could be affected by ground shaking from nearby faults. The closest fault is the San Andreas Fault about 76 miles southwest of the Project site. The potential for strong seismic ground shaking on the Project Site is not a significant environmental concern due to the infrequent seismic activity of the area and distance to the faults. The Project has no potential to cause the rupture of an earthquake fault indirectly or directly. Therefore, *no impact* would occur.

ii. Strong seismic ground shaking?

Less Than Significant Impact: According to the Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan, the Project Site is in an area of relatively low seismic activity. The proposed Project does not include any activities or components which could feasibly cause strong seismic ground shaking, either directly or indirectly. Therefore, the impacts would be *less than significant.*

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact: No specific countywide assessment of liquefaction has been performed; however, the Tulare County Multi-Hazard Mitigation Plan identifies the risk of liquefaction within the county as low because the soil type on the Project Site is unsuitable for liquefaction. According to state soils maps, the Project Site consists mostly of Colpien Loam which is not suitable for liquefaction. Therefore, the impacts would be *less than significant.*

iv. Landslides?

No Impact: The proposed Project Site is generally flat and there are no hill slopes in the area. As a result, there is no potential for landslides. No geologic landforms exist on or near the Project Site that could result in a landslide event. Therefore, *no impact* would occur.

b) Would the Project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact: Because the Project Site is relatively flat, the potential for erosion is low. However, construction-related activities and increased impermeable surfaces can increase the probability for erosion to occur. Construction-related impacts related to erosion would be temporary and subject to best management practices (BMPs) required by the Stormwater Pollution Prevention Plan (SWPPP), which are developed to prevent significant impacts related to erosion from construction. The Project would direct its stormwater runoff

into the proposed temporary on-site basin. Because impacts related to erosion would be temporary and limited to construction, and given the required SWPPP BMPs would prevent significant impacts related to erosion, the impact would be *less than significant.*

c) Would the Project 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?

Less Than Significant Impact: As addressed in response to questions a) and b) above, the Project Site is not situated in an area susceptible to landslides, liquefaction, or other geological hazards. Lateral spreading, induced by liquefaction, occurs when seismic ground shaking causes slopes with saturated soils to liquefy and flow toward the open slope face. However, the Project Site is predominantly flat and lacks significant slopes, negating this concern. Ground subsidence generally occurs when overdrafts from a groundwater basin diminish the upward hydraulic pressure that supports the land surface above, leading to the consolidation or settlement of the underlying soils. Extensive areas of the San Joaquin Valley, including the Project Site, have undergone subsidence due to groundwater usage. The Tulare General Plan indicates minimal risk of liquefaction and subsidence within the county. Additionally, geological hazards would be accounted for through the implementation of seismic standards outlined by the California Building Code. Therefore, the impacts would be *less than significant*.

d) Would the Project 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: The Project Site is not in an area with expansive soils, as expansive soils occur only in the county's western and southern portions. Because the soils associated with the Project do not exhibit shrink-swell behavior, implementation of the Project would not pose a risk to life or property caused by expansive soils. Therefore, *no impact* would occur.

e) Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact: The proposed Project does not propose the use of septic tanks or alternative wastewater disposal systems. The Project would connect to the City's existing wastewater conveyance network. Therefore, *no impact* would occur.

f) Would the Project directly or indirectly destroy a unique paleontological resource or Site or unique geologic feature?

Less Than Significant Impact with Mitigation Incorporated: No unique geologic features or known paleontological resources are located within the Project area. However, Mitigation Measure GEO-1 is required in the event of inadvertent discovery of a paleontological resource

ensure potential impacts are not significant. Therefore, impacts would be *less than significant with mitigation incorporated*.

Mitigation Measure for Impacts on Geology and Soils

Mitigation Measure GEO-1: If a suspected unique paleontological resource were to be discovered during construction of the Project, the following protocol shall be implemented:

- The City of Tulare shall be notified of the discovery. Work shall cease around the find until a qualified paleontologist meeting the Society of Vertebrate Paleontology standards has evaluated the find in accordance with federal, state, and local guidelines. The applicant shall choose a qualified paleontologist subject to the approval of the City. If the find is determined to be a unique resource, such measures may include avoidance, preservation in place, data recovery and associated documentation, or other appropriate measures. Construction activity may continue unimpeded in other portions of the Project Site. The City shall determine the appropriate and feasible measure(s) that will be necessary to mitigate impacts, in consideration of the measure(s) recommended by the paleontologist. Construction in the affected area shall re-commence with the approval of the City.

VIII. GREENHOUSE GAS EMISSIONS

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	☐	☐	☑	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☑	☐

The following analysis is based on the Air Quality, Greenhouse Gas, and Energy Assessment available in Appendix A to this report.

Environmental Setting

Climate Change is a change in the average weather of the earth that may be measured by alterations in wind patterns, storms, precipitation, and temperatures. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance, specifically focusing on temperature records from the last 150 years, the Industrial Age, which differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHG needed to stabilize global temperatures and climate change impacts. The IPCC predicted that global mean temperatures change from 1990 to 2100, given six scenarios, could range from 1.1 degree Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC 2007). In California, climate change may result in consequences such as the following form (CCCC 2006 and Moser et al. 2009).

1. A reduction in the quality and supply of water to the State from the Sierra snowpack.
2. Increased risk of large wildfires.
3. Reduction in the quality and quantity of certain agriculture products.
4. Exacerbation of air quality problems.
5. A rise in sea levels resulting in the displacement of coastal businesses and residences.
6. Damage to marine ecosystems and their natural environment.
7. An increase in infections, disease, asthma, and other health-related problems.

8. A decrease in the health and productivity of California's forest. (CCCC 2006 and Moser et al. 2009)

Greenhouse Gases (GHG) are gases that trap heat in the atmosphere and the presence of GHGs in the atmosphere affects the earth's temperature. The effect is equivalent to the way a greenhouse retains heat. Natural processes and human activities emit greenhouse gases. Common GHGs include water vapor, carbon dioxide, methane, nitrous oxide, ozone, chlorofluorocarbons, hydro chlorofluorocarbons, hydro fluorocarbons, per fluorocarbons, sulfur, and hexafluoride. Human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations. Some greenhouse gases can remain in the atmosphere for over hundreds of years. Some GHGs have a greater impact on climate change than others. In order to accurately compare GHG emissions, a Global Warming Potential (GWP) has been calculated for each greenhouse gas based on how long it remains in the atmosphere, on average, and how strongly it absorbs energy. Gases with a higher GWP absorb more energy, per pound, than gases with a lower GWP, and thus contribute more to global warming. For example, one pound of methane is equivalent to twenty-one pounds of carbon dioxide.

In regard to the quantity of these gases in the atmosphere, we first must establish the amount of particular gas in the air, known as Concentration, or abundance, which are measured in parts per million, parts per billion and even parts per trillion. To put this measurement in more relatable terms, one part per million is equivalent to one drop of water diluted into about thirteen gallons of water, roughly a full tank of gas in a compact car. Therefore, it can be assumed larger emission of greenhouse gases lead to a higher concentration in the atmosphere. GHGs as defined by AB 32 include the following gases: carbon dioxide, methane, nitrous oxide, hydrocarbons, perfluorocarbons, and sulfur hexafluoride. GHGs as defined by AB 32 and sources are summarized in Table 3-13.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Methane (CH4)	Is a flammable gas and is the main component of natural gas	12 years	21	Emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Carbon dioxide (CO2)	An odorless, colorless, natural greenhouse gas.	30-95 years	1	Enters the atmosphere through burning fossil fuels (coal, natural gas and oil), solid waste, trees and wood products, and also as a result of certain chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
Chloro-fluorocarbons	Gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are non-toxic nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).	55-140 years	3,800 to 8,100	Were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone.
Hydrofluoro-carbons	A man-made greenhouse gas. It was developed to replace ozone-depleting gases found in a variety of appliances. Composed of a group of greenhouse gases containing carbon, chlorine an at least one hydrogen atom.	14 years	140 to 11,700	Powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for stratospheric ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Nitrous oxide (N2O)	Commonly known as laughing gas, is a chemical compound with the formula N2O. It is an oxide of nitrogen. At room temperature, it is a colorless, non-flammable gas, with a slightly sweet odor and taste. It is used in surgery and dentistry for its anesthetic and analgesic effects.	120 years	310	Emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
Pre-fluorocarbons	Has a stable molecular structure and only breaks down by ultraviolet rays about 60 kilometers above Earth's surface.	50,000 years	6,500 to 9,200	Two main sources of pre-fluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	An inorganic, odorless, colorless, and nontoxic nonflammable gas.	3,200 years	23,900	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing and as a tracer gas.

Table 3-13. Greenhouse Gases; Source: EPA, Intergovernmental Panel on Climate Change

Each of the designated gases described above can reside in the atmosphere for different amounts of time, ranging from a few years to thousands of years. All of these gases remain in the atmosphere long enough to become well mixed, meaning that the amount that is measured in the atmosphere is roughly the same all over the world regardless of the source of the emission.

Regulatory Setting

Climate changes is a global, national, state, and local issue involving greenhouse gas emissions from all around the world; therefore, countries around the world, including the United States, have established regulations to assist in the emissions of GHGs. Tables 3-12 through 3-14 give a brief explanation of international, national, state, and local regulations.

Regulation	Adopted	Protocol
Intergovernmental Panel on Climate Change	1998	The United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economical information relevant to understanding

Regulation	Adopted	Protocol
		the scientific basis of risk of human-induced climate change and its potential impacts.
United Nations Framework Convention on Climate Change	March 21, 1994	Governments gather and share information on GHG emissions, national polices and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts.
Kyoto Protocol	Adopted: December 1, 1997 Entered into Force: February 16, 2005	Sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at an average of 5% against 1990 levels over the five-year period of 2008-2012
Paris Climate Agreement	Adopted: December 12, 2015 Entered into Force: November 4 2016	The Paris Climate Agreement is an agreement within the United UNFCCC to limit global temperature rise to 2 degrees Celsius above preindustrial levels. Under the agreement, each country determines, plans, and regularly reports its own contribution to mitigate global warming. The agreement is voluntary and is not legally binding.

Table 3-14. International Greenhouse Gas Regulations

Regulation	Adopted	Protocol
Greenhouse Gas Endangerment	December 7, 2009	The EPA Administrator signed two distinct findings regarding GHG emissions under section 2029(a) of the Clean Air Act. 1. Endangerment Finding: The Administrator finds that the current and Projected concentrations of the six key well-mixed greenhouse gases — carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6) 2. Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.
Corporate Average Fuel Economy (CAFE)	Adopted: 1975 Revised: July 29, 2011	An agreement between thirteen large automakers (accounting for 90% of all vehicles sold in the United States), the United Auto Workers, and the State of California to increase fuel economy to 54.5 miles per gallon for cars and light-duty trucks by model year 2025.
Greenhouse Gas Reporting Program	September 22, 2009	Requires reporting of GHG emissions from large sources and suppliers in the United States. Any facility that emits 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the EPA.
New Source Review	May 13, 2013	Tailors the requirements of the Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits.

Regulation	Adopted	Protocol
Standards of Performance for GHG Emissions for New Stationary Sources: Electrical Utility Generating Units	March 27, 2012	The EPA proposed new performance standards for emissions of carbon dioxide for new affected fossil fuel-fired electrical utility generated units. New sources greater than 25 megawatts would be required to meet an output-based standard of 1,000 pound of carbon dioxide per megawatt-hour, based on the performance of widely used natural gas combined cycle technology
Western Climate Initiative Partner	Yet to be formally adopted	Jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Its cap-and-trade program is estimated to be fully implemented by 2012

Table 3-15. Federal Greenhouse Gas Regulations

Regulation	Adopted	Protocol
Title 24	Adopted: 1978 2008 Standards Effective: January 1, 2010	California's Energy Efficiency Standards for Residential and Non-Residential Buildings. Their standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods
California Green Building Standards	January 12, 2010	A comprehensive and uniform regulatory code for all residential, commercial and K-14 school buildings.
Pavley Regulations, AB 1493	July 22, 2002	Reduce GHG emissions in new passenger vehicles from 2009 through 2016. These amendments are part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. ARB's September amendments will cement California's enforcement of the Pavley rule starting in 2009 while providing vehicle manufacturers with new compliance flexibility.
Low Carbon Fuel Standard-Executive Order S-01-07	January 18, 2007	Calls for a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. It instructed the California Environmental Protection Agency to develop and propose a draft compliance schedule to meet the 2020 target.
SB 1368	2006	The law limits long-term investments in base load generation by the state's utilities to power plants that meet an emissions performance standard (EPS).
SB 97	February 16, 2010	The Natural Resources Agency adopted Amendments to the CEQA Guidelines for greenhouse gas emissions.
AB 32	2006	Set the 2020 greenhouse gas emissions reduction goal into law. It directed the California Air Resources Board to begin developing discrete early actions to reduce greenhouse gases while also preparing a scoping plan to identify how best to

Regulation	Adopted	Protocol
		reach the 2020 limit. The reduction measures to meet the 2020 target are to be adopted by the start of 2011.
SB 375	August 30, 2008	Enhances California's ability to reach its AB 32 goals by promoting good planning with the goal of more sustainable communities. Sustainable Communities requires ARB to develop regional greenhouse gas emission reduction targets for passenger vehicles. ARB is to establish targets for 2020 and 2035 for each region covered by one of the State's 18 metropolitan planning organizations
Executive Order S-13-08	2009	A comprehensive "Climate Adaptation Strategy" that would identify the state's vulnerabilities and plan accordingly. State agencies will take this report into account, due in December 2010, when planning new infrastructure such as roads, bridges, and water treatment facilities. The executive order noted that the country's longest continuously operating sea level gauge, San Francisco Bay's Fort Point, recorded a seven-inch rise in sea level over the 20th century.
SB 1078, SB 107, and Executive Order S-14-08	September 12, 2002	Requires California to generate 20% of its electricity from renewable energy by 2017. SB 107 then changes the 2017 deadline to 2010. Executive Order S-14-08 required that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020.
CEQA Guidelines Update	Adopted: April 13, 2009 Updated: May 2011	These Thresholds are designed to establish the level at which the District believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on the Air District's website and included in the Air District's updated CEQA Guidelines
Executive Order B-30-15	April 20, 2015	Establishes a California GHG reduction target of 40 percent below 1990 levels by 2030.
AB 398	July 17, 2017	Extended the California Cap and Trade program through 2030.

Table 3-16. State Greenhouse Gas Regulations

Regulation	Adopted	Protocol
San Joaquin Valley Air Pollution Control District		The San Joaquin Valley Air Pollution Control District is made up of eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and Kern. The Valley Air District is governed by a Governing Board consisting of representatives from the Board of Supervisors of all eight counties, one Health and Science member, one Physician, and five Valley city representatives.
SJVAPCD CEQA Greenhouse Gas Guidance	December 2009	The SJVAPCD approach is intended to streamline the process of determining if Project specific GHG emissions would have a significant effect. Best Performance Standards would be established according to performance-based determinations.

Regulation	Adopted	Protocol
San Joaquin Valley Carbon Exchange	November 2008	Intended to quantify, verify, and track voluntary GHG emissions reductions generated within the San Joaquin Valley
Rule 2301	January 19, 2012	Emission Reduction Credit Banking. Provided an administrative mechanism for sources to bank GHG emissions, mechanism for sources to transfer GHG reductions to other users and defines eligibility standards, quantitative and procedures.

Table 3-17. Regional Greenhouse Gas Regulations

Thresholds and Methodology

The impact analysis provided in Chapter 2.6 is based on the application of the following California Environmental Quality Act (CEQA) Guidelines Appendix G, which indicates that a project would have a significant impact on greenhouse gas emissions if it would:

1. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.*
2. *Conflict with an applicable plan, policy or regulations adopted for the purpose of reducing the emissions of greenhouse gas emissions.*

GHG emissions and climate change were evaluated in accordance with Appendix G of the 2024 CEQA Guidelines. CEQA Guidelines Section 15064.4 states that, when making a determination with respect to the significance of a project's GHG emissions, a lead agency shall have discretion to determine whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use; and/or (2) Rely on a qualitative analysis or performance-based standards. Section 15064.4 also states that a lead agency should consider the following factors when assessing the significance of the impact of GHG emissions on the environment: (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting; (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

GHG emissions were calculated in the same CalEEMod model used to determine the proposed project's criteria air pollutant emissions. Consistent with SJVAPCD recommendations, construction emissions were amortized over a thirty-year period and added to the annual operational emissions to determine the proposed Project's annual GHG emissions. Consistent with CEQA Guidelines Section 15064(h)(3), project significance was determined based on the proposed Project's consistency with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the proposed Project. CARB's 2017 Scoping Plan applies to the proposed

Project and are intended to reduce GHG emissions to meet the statewide targets set in Senate Bill (SB) 32. The project efficiency threshold of 6.7 MT CO2e.yr/capita was derived from the CARB Scoping Plan and used to determine the Project's potential impact on greenhouse gas emissions. Thus, the proposed Project would not have a significant effect on the environment if it were found to be consistent with CARB's 2017 Scoping Plan efficiency metric.

Discussion

a) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact:

Construction. Greenhouse gases would be generated during construction from activities including site preparation, grading, building construction, application of architectural coatings, and paving. The CalEEMod Emissions report predicts that this Project will create a maximum of 421 MT of CO2e emissions per year during construction. Because the SJVAPCD does not have numeric thresholds for assessing the significance of construction related GHG emissions, predicted emissions from Project construction were compared to the Sacramento Metropolitan Air Quality Management District (SMAQMD) thresholds for construction related GHG emissions. The SMAQMD currently has a threshold of 1,100 metric tons of CO2e per year for construction emissions amortized over a 30-year Project lifetime. Because Project construction would generate less GHG emissions than this threshold, impacts related to GHG emissions during Project construction would be less than significant.

Operation. The proposed Project would have the following operational greenhouse gas emissions:

- CO2: 2,164 metric tons per year
- CH4: 1.94 metric tons per year
- N2O: 0.09 metric tons per year
- CO2e: 2,442 metric tons per year (combined CO2, CH4, and N2O emissions w/ some margin of error due to rounding differences and addition of Global Warming Potential)

The SJVAPCD has not formally provided guidance on how to analyze GHG emissions impacts for projects within their San Joaquin Valley Air Basin (SJVAB). Until such time as SJVAPCD provides formal guidance, the following alternative metrics used by air districts in California to assess GHG emissions impacts have been identified:

Bright-Line Numeric Threshold: The bright-line significance threshold is a numeric, mass emissions threshold. In general, the bright-line threshold identifies the point at which additional analysis of project-related GHG emissions impacts is necessary. Projects below the established bright-line significance criteria have a de minimis contribution to the local, regional, and/or

statewide GHG emissions inventory and have less than significant impacts. Projects above this threshold may result in a substantial increase in GHG emissions.

The bright-line threshold is based on the methodology identified in the 2016 AEP white paper (Walter et al., 2016). It is a market capture approach, reflecting the amount of emissions that 90 percent of development projects surveyed in four cities within California would generate. CAPCOA identified that a bright-line threshold set at 900 metric tons of CO2e per year would capture 90 percent of projects. In general, 900 metric tons of CO2e per year corresponds to (1) a residential development of 50 dwelling units; (2) 35,000 square feet of office space; (3) 11,000 square feet of retail space; and (4) 6,300 square feet of supermarket space. The 900 metric tons of CO2e per year is used as it is the most conservative bright line threshold. Exceeding the bright-line significance criterion does not necessarily indicate that the project generates a significant unavoidable impact. Consistent with how the bright-line threshold is applied in other air districts, this analysis utilizes the bright-line thresholds as a screening criterion to identify whether a full analysis of GHG emissions is warranted. If the Project exceeds the screening threshold, the second level of analysis will compare the Project to the efficiency metric discussed below.

Efficiency-Based Threshold for Residential Projects: The efficiency metric identified by some air districts in California in the absence of a county-wide GHG reduction plan is derived from CARB's Scoping Plan. Residential projects that are over the bright line threshold would not be considered significant if their overall GHG efficiency is less than 6.7 MT CO2e/yr/capita. However, it is noted that this threshold is based, in part, on the GHG reducing target established for the year 2020 under AB 32, but the Project would be implemented after the year 2020. Statewide goals for GHG reductions in the years beyond 2020 were codified into state law with the passage of SB 32, which as described previously mandates that California achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. This equates to 40 percent below the statewide GHG reduction target for the year 2020. Therefore, a 40% reduction would be:

6.7 MT CO2e/yr/capita x 60% = 4.02 MT CO2e/yr/capita.

For this Project: The average household size in the City of Tulare is 3.39 persons (US Census Bureau 2024). The Project consists of up to 171 units, leading to an estimated population of:

171 units × 3.39 persons/household = 580 people

Using the efficiency-based threshold, the allowable emissions for this residential Project would be:

580 people × 4.02 MT CO2.yr/capita = 2,332 metric tons of CO2e per year.

The total operational GHG emissions amount to 2,164 metric tons of CO2e per year. Since the Project's emissions are below the efficiency-based threshold for residential projects (2,332 metric tons of CO2e per year), the Project's operational GHG emissions are considered *less than significant.*

b) Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact: The Project will be consistent with all applicable plans, policies, and regulations, particularly the Climate Action Plan, which is included as part of the City of Tulare General Plan. Table 3-18 below demonstrates the consistency of the Project with all the applicable policies and goals of the City of Tulare General Plan & Climate Action Plan.

CAP Policies	Project Consistency
Energy Systems	
Energy Efficiency in New Development: Increase energy efficiency in new commercial and residential development and require new residential and commercial development to achieve enhanced energy efficiency and exceed California Energy Code requirements by 15%.	Consistent. The proposed Project will not utilize natural gas during its operational phase. Additionally, this Project plans to adhere to all energy conservation codes by implementing passive heating and cooling opportunities in subdivision design.
Renewable Energy For Residents: Increase reliance on local renewable energy sources through provision of a minimum of 15% of baseline residential energy needs from on-site renewable energy sources by 2030.	Consistent. The Project buildings would be designed with solar panels and would be compliant with Title 24 requirements for building efficiency.
Waste & Resource Conservation	
Reduce Water Usage and Energy consumed for groundwater pumping: Amend the City's Building Code and other codes appropriate to require water efficiency standards in new residential and nonresidential development as established by mandatory and Tier 1 CALGreen measures.	Consistent. The proposed low-density residential development will comply with the Water Conservation Ordinance of the City of Tulare as to not waste water and conserve energy used to pump groundwater for community use. Additionally, landscaping on the site will comply with the City of Tulare's Water Efficient Landscape Ordinance (CHAPTER 10.196: LANDSCAPING).
Active Transportation	

Bicycle Trips: Increase Transportation related bicycle trips to reduce vehicle miles traveled.	Consistent. The Project features Class I Bike path parallel to North E Street on the western edge of the Project site to serve as a transportation corridor for bicycles and pedestrians.

Table 3-18. Consistency Analysis with the Tulare Climate Action Plan

The Project would not generate a cumulatively considerable GHG impact, nor would it conflict with any applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. The impact is *less than significant.*

IX. HAZARDS AND HAZARDOUS MATERIALS

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

The following analysis is partially based on the findings of the Phase I Environmental Site Assessment (ESA) prepared for the Project by Paul Humphrey, EP, dated August 2024, which is available in Appendix E to this report; and the findings of the Phase II Limited Site Assessment prepared for the Project by Willbanks Environmental Consulting, dated September 2024, which is available in Appendix F to this report.

Environmental Setting

The proposed Project Site is cater-corner to the nearest school, Los Tules Middle School. It is approximately 5.2 miles north of the nearest public airport, Mefford Field Airport. The nearest private airport, SCE San Joaquin Heliport, is located 3.5 miles to the south.

The Department of Toxic Substances Control's (DTSC's) EnviroStor was used to identify any sites associated with the release of hazardous materials or wastes within the Project area. This research confirmed that the Project Site and the surrounding area are not hazardous.

Regulatory Setting

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S. Code [U.S.C.] §9601 et seq.). The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or the Superfund Act) authorizes the President to respond to releases or threatened releases of hazardous substances into the environment.

Occupational Safety and Health Administration. The Occupational Safety and Health Administration (OSHA) sets and enforces Occupational Safety and Health Standards to ensure safe working conditions. OSHA provides training, outreach, education, and compliance assistance to promote safe workplaces. The proposed Project would be subject to OSHA requirements during construction and maintenance.

Toxic Substances Control Act of 1976 (15 U.S.C. §2601 et seq.). The Toxic Substance Control Act was enacted by Congress in 1976 and authorized the EPA to regulate any chemical substances determined to cause an unreasonable risk to public health or the environment.

Hazardous Waste Control Law, Title 26. The Hazardous Waste Control Law creates hazardous waste management program requirements. The law is implemented by regulations contained in Title 26 of the California Code of Regulations (CCR), which contains requirements for the following aspects of hazardous waste management:

- Identification and classification;
- Generation and transportation;
- Design and permitting of recycling, treatment, storage, and disposal facilities;
- Treatment standards;
- Operation of facilities and staff training; and
- Closure of facilities and liability requirements.

California Code of Regulations, Title 22, Chapter 11. Title 22 of the California Code of Regulations contains regulations for identifying and classifying hazardous wastes. The CCR defines waste as hazardous if it has the following characteristics: ignitability, corrosivity, reactivity, and/or toxicity.

California Emergency Services Act. The California Emergency Services Act created a multi-agency emergency response plan for California. The Act coordinates various agencies, including CalEPA, Caltrans, the California Highway Patrol, regional water quality control boards, air quality management districts, and county disaster response offices.

Hazardous Materials Release Response Plans and Inventory Law of 1985. Pursuant to the Hazardous Materials Release Response Plans and Inventory Law of 1985, local agencies are required to develop "area plans" for response to releases of hazardous materials and wastes. Tulare County maintains a Hazardous Material Incident Response Plan to coordinate emergency response agencies for incidents and requires the submittal of business plans by persons who handle hazardous materials.

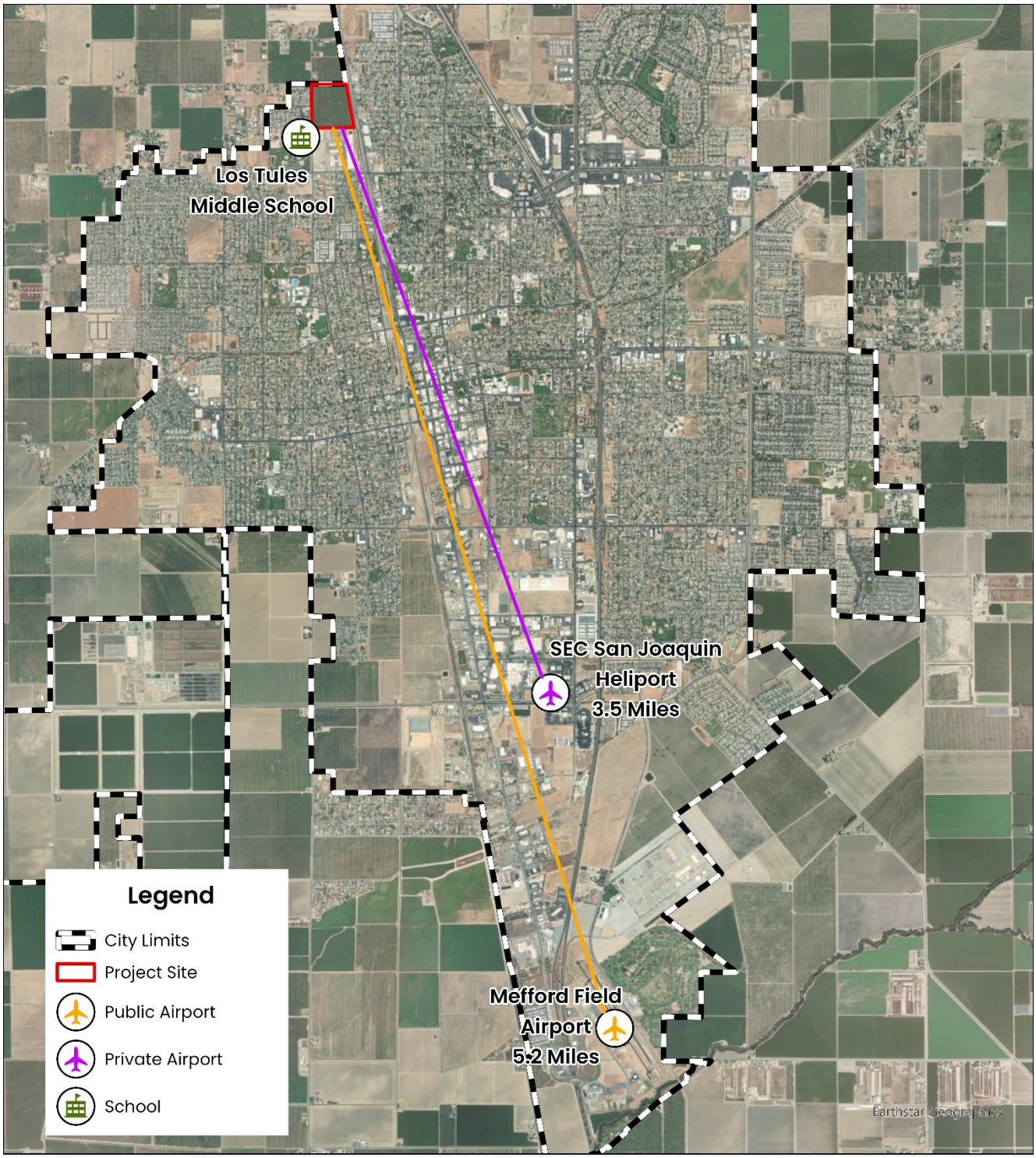
City of Tulare General Plan: The City of Tulare General Plan includes the following goals and policies pertaining to hazards and hazardous materials:

- LU-P11.19 Recycling of Hazardous Materials. The City shall require the proper disposal and recycling of hazardous materials.

Goal SAF-1 To regulate future development to ensure the protection of public health and safety from hazards and hazardous materials and the adequate provision of emergency services.

Goal SAF-5 To protect people from the harmful effects of exposure to hazardous materials.

- SAF-P5.2 Hazardous Materials Studies. The City shall ensure that the proponents of new development projects address hazardous materials concerns through the preparation of Phase I or Phase II hazardous materials studies for each identified site as part of the design phase for each project. Recommendations required to satisfy federal or State cleanup standards outlined in the studies will be implemented as part of the construction phase for each project.
- SAF-P5.3 Transporting Hazardous Materials. The City shall strive to ensure hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and federal safety standards.



4CREEKS

Distance to Schools and Airports
Santa Fe West Subdivision
City of Tulare

N
1 inch = 4,500

Figure 3-5: Distance to Schools and Airports

Discussion

a) **Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Less Than Significant Impact: Project construction activities may involve the use and transport of hazardous materials. The use of such materials would be considered minimal and would not require these materials to be stored in bulk form. The Project does not involve the use or storage of hazardous substances other than the insignificant amounts of pesticides, fertilizers, and cleaning agents required for normal maintenance of residences and residential landscaping. The Project must adhere to applicable zoning and fire regulations regarding the use and storage of any hazardous substances. Therefore, the proposed Project would have *less than significant* impacts on hazardous materials.

b) **Would the Project 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 Impact: The Project Site was historically and is currently used for agricultural purposes, and as such, there is a potential that agricultural related chemicals such as pesticides, herbicides, and fertilizers, may have been used on-site. Near surface soils (where residual agricultural chemical concentrations would have most likely been present, if at all) are likely generally mixed with fill material or disturbed during grading. Also, it is common that engineered fill material is placed over underlying soils as part of site development activities. These additional variables serve to further reduce the potential for exposure to residual agricultural chemicals (if any). However, since residential land uses are proposed, a Phase II Limited Site Assessment was conducted to assess the presence/concentrations, if any, of organochlorine pesticides (OCPs) and arsenic in soil at the Project Site given the agricultural use. Based on the findings in the field and the laboratory analytical reports for the soil samples collected and analyzed from the Project Site during this investigation, no evidence of a known significant impact (based on a comparison with established regulatory screening levels) was identified with respect to OCPs and arsenic. Further, there is no evidence that the Project Site has been used for underground storage of hazardous materials.

While the Project Site abuts an existing residential area, construction and operation of the Project does not pose a reasonably foreseeable condition or incident that could result in significant release of hazardous materials into the environment. During construction, potential accidental releases of standard fuels, solvents, or chemicals typical of construction of a residential subdivision may occur. Should an accidental hazardous release occur, existing regulations for handling hazardous materials may require coordination with the City Fire Department or DTSC for an appropriate plan of action, which can include studies or testing to determine the nature and extent of contamination, as well as handling and proper disposal. Given the nature of the Project, the operation of the Project does not pose 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. Therefore, potential impacts would be *less than significant.*

c) Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact: Though the Project Site is within one-quarter mile of a school, Project operations will not emit hazardous emissions or handle hazardous materials, substances, or wastes. Since the Project would not emit hazardous emissions or involve handling acutely hazardous materials or waste and is not within one-quarter mile of an existing or proposed school, there would be *no impact.*

d) Would the Project 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: The Project Site is not listed as a hazardous materials site under Government Code Section 65962.5, nor is the Project Site identified in DTSC's EnviroStor or SWRCB's GeoTracker hazardous databases. Therefore, *no impact* would occur.

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?

Less Than Significant Impact: The proposed Project is located five miles from the Mefford Field Airport, and 3.5 miles from the private SCE heliport, but is not located within an airport land use plan. Implementation of the proposed Project would not result in a safety hazard or excessive noise for people residing or working in the Project area. There is no impact.

f) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact: The City's site plan review procedures ensure compliance with emergency response and evacuation plans. In addition, the site plan would be reviewed by the Fire Department per standard City procedure to ensure consistency with emergency response and evacuation needs. Therefore, potential impacts to an adopted emergency response plan or evacuation plan would be *less than significant*.

g) Would the Project expose people or structures, either directly or indirectly, to significant risk of loss, injury or death involving wildland fires?

No Impact: The Project Site is located within an agricultural and residential area of the City, which is not considered a wildland fire risk zone. The surrounding land is characterized by agricultural and developed urban areas with low wildland fire hazard potential. Therefore, the Project would not expose people or structures to significant risks from wildland fires, and *no impact* would occur.

X. HYDROLOGY AND WATER QUALITY

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise sustainably degrade surface or ground water quality?	☐	☑	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	☐	☐	☑	☐
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?	☐	☐	☑	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☐	☑	☐
(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	☐	☑	☐	☐
(iv) impede or redirect flood flows?	☐	☐	☑	☐
d) In flood hazard, tsunami, or seiche zones risk the release of pollutants due to Project inundation?	☐	☐	☐	☑
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater movement plan?	☐	☐	☑	☐

Environmental Setting

Hydrologic System: The proposed Project Site is in the Tulare Lake Hydrologic Region, which encompasses 10.9 million acres south of the San Joaquin River. Specifically, the Site is situated within the San Joaquin Valley Groundwater Basin, which is divided into seven sub-basins. The Site falls within the Kaweah Subbasin, bordered by the Kings Groundwater Subbasin to the north, the Tule Groundwater Subbasin to the south, the Tulare Lake Subbasin to the west, and the Sierra Nevada foothills' crystalline bedrock to the east. The area predominantly consists of lands within the Kaweah Delta Water Conservation District. The major rivers in this subbasin are the St. Johns and lower Kaweah Rivers, with the Kaweah River serving as the primary surface water source for groundwater recharge.

Groundwater: The City of Tulare operates 23 active wells, a 125,000-gallon water storage tower, two 2-million-gallon concrete storage tanks, one 1.5-million-gallon concrete storage tank, 7 well sites equipped with granulated activated carbon (GAC) treatment filters, 277 miles of water transmission and distribution mains, and over 2,500 fire hydrants. The City's water supply is sourced from deep groundwater wells distributed throughout the city, which are connected to an integrated water system. Additionally, the City of Tulare, City of Visalia, and the Tulare Irrigation District have formed a Joint Power Authority (JPA) to establish the Mid-Kaweah Groundwater Sustainability Agency (GSA). Under this JPA, the Board of Directors is responsible for developing, adopting, and implementing a Groundwater Sustainability Plan, as mandated by the Sustainable Groundwater Management Act of 2014.

Surface Waters: The City of Tulare does not use surface water for its potable water supply. However, it purchases surface water from the Tulare Irrigation District for groundwater recharge purposes.

Stormwater Drainage: The Project includes a stormwater retention pond. The stormwater pond will have a capacity of 11.5 acre-feet (AF). The Site was calculated to require a total of 11 AF of stormwater drainage.

Regulatory Setting

Clean Water Act: The Clean Water Act (CWA) is enforced by the U.S. EPA and was developed in 1972 to regulate discharges of pollutants into the waters of the United States. The Act made it unlawful to discharge any pollutant from a point source into navigable waters unless a National Pollution Discharge Elimination System (NPDES) Permit is obtained.

National Flood Insurance Act: The Federal Emergency Management Agency (FEMA) is tasked with responding to, planning for, recovering from, and mitigating disasters. The Federal Insurance and Mitigation Administration within FEMA is responsible for administering the

National Flood Insurance Program (NFIP) and administering programs that aid with mitigating future damages from natural hazards.

California Water Quality Porter-Cologne Act: California's primary statute leading water quality and water pollution concerns with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resource Control Board (SWRCB) and each of the nine Regional Water Quality Boards (RWQCB) power to protect water quality and further develop the Clean Water Act within California. The applicable RWQCB for the proposed Project is the Central Valley RWQCB.

Central Valley RWQCB: The proposed Project is within the jurisdiction of the Central Valley Regional RWQCB. The Central Valley RWQCB requires a NPDES Permit and Stormwater Pollution Prevention Plan (SWPPP) for projects disturbing more than one acre of total land area. Because the project is greater than one acre, a NPDES Permit and SWPPP will be required.

City of Tulare General Plan: The City of Tulare General Plan contains the following goals and policies related to water resources:

- LU-P11.3 System Expansion. The City shall require new development be responsible for expansion of existing facilities such as water systems, sewer systems, storm drainage systems, parks and other capital facilities made necessary to serve the new development.
- LU-P11.4 Water Supply System. The City shall require that water supply systems be adequate to serve the size and configuration of land developments. Standards as set forth in the subdivision ordinance shall be maintained and improved as necessary.
- LU-P11.5 Water Supply for New Development. For all new development, prior to the approval of any subdivision applications, the developers shall assure that there is sufficient available water supply to meet projected buildout.
- LU-P11.6 Adequate System Maintenance. The City shall require maintenance funding for streets, storm drainage, and ponding basins for new development.
- LU-P11.7 Adequate Infrastructure Capacity. The City shall only approve new development when it can be demonstrated by the applicant that adequate system capacity in the service area is or will be available to handle increases related to the project.
- LU-P11.9 Adequate City Service Capacity. The City shall only approve new development when it can be demonstrated by the applicant that adequate public service capacity in the area is or will be available to handle increases related to the project. School capacity will be discussed in the review of each development, and the City will ensure early coordination with the school districts serving the site. School capacity will be addressed as allowed under State law.
- LU-P11.17 Fair Share Improvements. The City shall ensure new development is required to participate on a fair-share basis in the completion of improvements to **the existing**

sewer system, and/or the construction of new sewer trunk lines as described in the City's adopted Sewer Master Plan.

- COS-P1.1 Regional Groundwater Protection. The City shall work with Tulare County and special districts to help protect groundwater resources from overdraft by promoting water conservation and groundwater recharge efforts.
- COS-P1.8 Water Conservation. The City shall promote efficient water use and reduced water demand by:
    - Requiring water-conserving design and equipment in new construction.
    - Encouraging water-conserving landscaping and other conservation measures; and
    - Encourage retrofitting existing development with water conserving devices.
    - Providing public education programs.
    - Distributing outdoor lawn watering guidelines.
    - Promoting water audit and leak detection programs.
    - Enforcing water conservation programs.
- COS-P1.11 Water for Irrigation. Whenever possible, the City shall require new development to use recycled or non-potable water for irrigation in landscaped areas.

Discussion

a) Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact with Mitigation Incorporated: Construction would involve excavation, grading, and other earthwork across most of the 32.97-acre Project Site. During storm events, exposed construction areas on the Project Site may cause runoff to carry pollutants such as chemicals, oils, sediment, and debris. Additionally, potential soil erosion and the size of the Project Site necessitates the implementation of a SWPPP for the Project. The SWPPP identifies all potential pollution sources that could affect stormwater discharges from the Project Site and specifies BMPs for stormwater runoff. Chemicals or surfactants used during Project maintenance or operations may also discharge into the environment, potentially affecting water quality standards.

Moreover, the Project would implement Mitigation Measures HYD-1 and HYD-2, which require steps to minimize impacts on water quality during construction. Mitigation Measure HYD-1, before any construction or grading begins, the Applicant must submit a NOI for discharge from the Project Site to the California SWRCB Storm Water Permit Unit. A copy of this NOI must also be submitted to the City before the issuance of grading permits, with the City reviewing the documentation and conducting site inspections during construction to ensure compliance. Mitigation Measure HYD-2 requires the building contractor to prepare and submit a SWPPP to the City for approval at least 45 days before construction starts. The contractor is responsible for understanding and adhering to the State General Permit and implementing the SWPPP, which outlines potential pollutant sources and specifies BMPs to control site discharges. These

BMPs include dust control, monitoring for erosion and sedimentation control, use of detention basins and erosion control materials, covering soil stockpiles and graded slopes during inactivity or extreme weather, and strictly preventing spills and pollutant discharges through proper material storage, trash disposal, and site management. Therefore, impacts would be less *than significant with mitigation incorporated.*

b) Would the Project substantially decrease groundwater supplies or interfere with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

Less Than Significant Impact: Water services for the Project would be provided by the City of Tulare upon development. The City's water supply consists of 23 wells extracting water from an underground aquifer. According to the City's 2020 Urban Water Management Plan (UWMP), the projected water supply is 6,255 million gallons (MG) in 2025, 6,421 MG in 2030, and 6,910 MG in 2035. As of 2020, current water usage stands at 5,519 MG, averaging approximately 10,500 gallons per minute daily.

The City's Water System Master Plan indicates that single-family residential uses consume about 2,400 gallons per day per acre. Since the Project would be developed for single-family residential use, the 32.97-acre Site is expected to use approximately 79,128 gallons per day, equating to around 28.9 MG (88.6 Acre-Feet) annually. This addition will have a minimal effect on the projected water usage, contributing to the use of approximately .46% of the 2025 water supply, .45% of the total 2030 water supply, and .42% of the 2035 water supply. These increases indicate a negligible impact on the City's overall water supply projections.

The Project would result in reduced percolation to the groundwater basin compared to the existing undeveloped Project Site due to increased paved and impervious surfaces that would result from the Project. However, during construction, all stormwaters would be directed to a temporary on-site basin where the stormwater would be able to be utilized in groundwater recharge programs.

The Project is currently used as an almond farm. According to the California Almond Sustainability Program, California's almond farmers report irrigating their orchards with 36 inches of water, per acre, per year, on average statewide, which equates to approximately 3.9 acre-feet per acre per year. The current Project Site, a 32.97-acre almond farm, would use approximately 128.58 acre-feet of water annually if it requires 36 inches of water per acre. Compared to the planned Project, projected to use 28.9 MG, or 88.6 acre-feet of water, the planned Project would use less water than the current use. In addition, future usage of water by the Project will be further governed by the basin's implementation of SGMA. Furthermore, the development of the Project would be consistent with the underlying General Plan land use designation of the Project Site, and as such, the Project has been accounted for in the current 2020 UWMP and its growth forecasts as well as its water demand and supply calculations. Therefore, the impacts on water resources would be *less than significant.*

c) Would the Project 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?

Less Than Significant Impact: The proposed Project involves the construction and operation of 171 low-density residential units on approximately 32.97 gross acres. While building these units may alter drainage patterns, it is not expected to result in substantial erosion or siltation on or off the Site. A SWPPP will be implemented during Project construction. SWPPPs include mandated erosion control measures designed to prevent significant impacts related to erosion caused by runoff during construction. Therefore, through regulatory compliance, the Project's impact would be *less than significant.*

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less Than Significant Impact: Because the Project would result in an increase of impervious surfaces within the Project Site, an increase in surface runoff may occur. However, during construction, all stormwater runoff will be routed and contained in an onsite basin. The applicant will be required to provide appropriate stormwater management measures, ensuring that there will not be substantial flooding on or off the Site. Therefore, through regulatory compliance, the Project will have a less than significant 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?

Less Than Significant Impact with Mitigation Incorporated: The proposed Project includes the construction and operation of 171 single-family residential homes on a 32.97-acre Site including a temporary stormwater basin. New impervious surfaces, such as roads and driveways, will collect automobile-derived pollutants like oils, greases, rubber, and heavy metals. During storms, these pollutants can be transported into drainage systems through surface runoff. Due to the increase in population and impervious surfaces within the Site, there will be a rise in pollutants in surface runoff, potentially leading to an increase in point source and non-point source pollution from the development. However, the Project, being a residential development, is not expected to cause substantial degradation of water quality.

Even so, to further mitigate potential water quality impacts, the Project will implement Mitigation Measure HYD-3, which requires the preparation of a Development Maintenance Manual. This manual will include comprehensive procedures for the maintenance and operation of stormwater facilities to ensure the long-term effectiveness of post-construction stormwater controls. The Project would also be required to comply with the City's Storm Water Management Plan (SWMP), Engineering Standards, General Plan, and City ordinance

requirements. Therefore, through regulatory compliance and Mitigation Measure HYD-3, impacts would be *less than significant with mitigation incorporated*.

v. Impede or redirect flood flows?

No Impact: The Project Site is generally flat, so no significant grading or leveling will be required. The Site is not in proximity to any streams or rivers and will not alter the course of any such water bodies. According to the National Flood Hazard mapping by the Federal Emergency Management Agency, the Project Site is not located within a 100-year flood hazard area. Therefore, there would be *no impact* with regard to impeding or redirecting flood flows.

d) Would the Project, in flood hazard, tsunami, or seiche zones, risk the release of pollutants due to Project inundation?

No Impact: The Project is located inland and at approximately 102 miles from the nearest coastline; and as such, neither a tsunami nor seiche would affect the Project Site. According to the National Flood Hazard mapping by the Federal Emergency Management Agency, the Project Site is not located within a 100-year flood hazard area. Therefore, *no impact* would occur.

e) Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact: The Project would not conflict with or obstruct the implementation of any water quality control plan. The Project would be subject to the requirements of the NPDES Stormwater Program and would be required to comply with a SWPPP. The SWPPP would identify all potential sources of pollution that could affect stormwater discharges from the Project Site and specify BMPs to prevent significant impacts related to stormwater runoff. Moreover, the Project Site is within the jurisdiction of the Mid-Kaweah Groundwater Sustainability Agency (GSA). The Groundwater Sustainability Plan (GSP) was adopted by the Mid-Kaweah GSA in December 2019. The Project would not conflict with or obstruct the implementation of this GSP. Therefore, through regulatory compliance, the Project's impacts would be *less than significant*.

Mitigation Measures for Impacts on Hydrology and Water Quality

Mitigation Measure HYD-1: Prior to the issuance of any construction/grading permit and/or the commencement of any clearing, grading, or excavation, the Applicant shall submit a Notice of Intent (NOI) for discharge from the Project Site to the California State Water Resources Control Board's Storm Water Permit Unit and submit a copy of this NOI to the City. The City shall review the noticing documentation prior to approval of the grading permit and City monitoring staff shall inspect the Project Site during construction for compliance.

Mitigation Measure HYD-2: The Applicant shall require the building contractor to prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to the City 45 days prior to the start of work for approval. The contractor is responsible for understanding the State General Permit and instituting the SWPPP during construction. A SWPPP for site construction shall be developed prior to the initiation of grading and implemented for all construction activity on the Project Site in excess of one (1) acre, or where the area of disturbance is less than one acre but is part of the Project's plan of development that in total disturbs one or more acres. The SWPPP shall identify potential pollutant sources that may affect the quality of discharges to stormwater and shall include specific Best Management Practices (BMPs) to control the discharge of material from the site. The following BMPs methods shall include, but would not be limited to:

- Dust control measures to ensure success of all on-site activities to control fugitive dust;
- A routine monitoring plan to ensure success of all on-site erosion and sedimentation control measures;
- Provisional detention basins, straw bales, erosion control blankets, mulching, silt fencing, sand bagging, and soil stabilizers shall be used;
- Soil stockpiles and graded slopes shall be covered after two weeks of inactivity and 24 hours prior to and during extreme weather conditions; and,
- BMPs shall be strictly followed to prevent spills and discharges of pollutants on-site, such as material storage, trash disposal, construction entrances, etc.

Mitigation Measure HYD-3: A Development Maintenance Manual for the Project shall include comprehensive procedures for maintenance and operations of any stormwater facilities to ensure long-term operation and maintenance of post-construction stormwater controls. The maintenance manual shall require that stormwater BMP devices be inspected, cleaned, and maintained in accordance with the manufacturer's maintenance conditions. The manual shall require that devices be cleaned prior to the onset of the rainy season (i.e., mid-October) and immediately after the end of the rainy season (i.e., mid-May). The manual shall also require that all devices be checked after major storm events. The Development Maintenance Manual shall include the following:

- Runoff shall be directed away from trash and loading dock areas;
- Bins shall be lined or otherwise constructed to reduce leaking of liquid wastes;
- Trash and loading dock areas shall be screened or walled to minimize offsite transport of trash; and,
- Impervious berms, trench catch basin, drop inlets, or overflow containment structures nearby docks and trash areas shall be installed to minimize the potential for leaks, spills or wash down water to enter the drainage system.

XI. LAND USE AND PLANNING

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☑
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?	☐	☐	☐	☑

Environmental Setting

The Project Site is located in the northeastern corner of the City of Tulare. According to the 2030 City of Tulare General Plan, the Site is designated as Low Density Residential. Although the current zoning includes Low Density Residential districts with minimum lot sizes of 8,000 square feet (R-1-8), 12,500 square feet (R-1-12), and 20,000 square feet (R-1-20), the Project proposes a zone amendment to R-1-4 to allow smaller lot sizes consistent with the General Plan designation. It proposes to subdivide the 32.97-acre Site for 171 single-family residential homes, including a new Class I bike path, and temporary stormwater basin. This residential development will complement and provide street interconnectivity with the existing residential area to the west, helping to address the need for housing within the city and region.

Regulatory Setting

City of Tulare General Plan: The Project site is designated as Low Density Residential in the 2035 City of Tulare General Plan. Low Density Residential establishes areas for single-family residences in a suburban configuration. This designation typically has a density range of 3.1-7 DU/acre with a minimum lot size of 4,000 square feet.

The following goals and policies in the City of Tulare General Plan are applicable to the project site's residential land use designation:

Goal LU-3 To designate, protect, and provide land to ensure sufficient residential development capacity and variety to meet community needs and projected population growth.

- LU-P3.1 Neighborhood Housing Mix. The City shall encourage mixed use neighborhoods to have a variety of housing types and densities to help create an overall healthy, balanced community.

- LU-P3.4 Jobs-Housing Balance. The City shall consider the effects of city land use proposals and decisions on the Tulare County area and the efforts to maintain a regional jobs housing balance.
- LU-P3.5 Future Residential Development. The City shall direct future residential development to areas adjacent or in close proximity to existing and future neighborhoods and neighborhood commercial areas to further Tulare as a self-sufficient, full-service city.
- LU-P3.8 Incompatible Uses. The City shall protect existing residential neighborhoods from the encroachment of incompatible activities and land uses (i.e. traffic, noise, odors, or fumes) and environmental hazards (i.e. flood, soil instability).
- LU-P3.9 Planned Development. The City shall encourage the use of planned development provisions in residential developments to provide flexibility, to meet various socio-economic needs, and to address environmental and site design constraints.

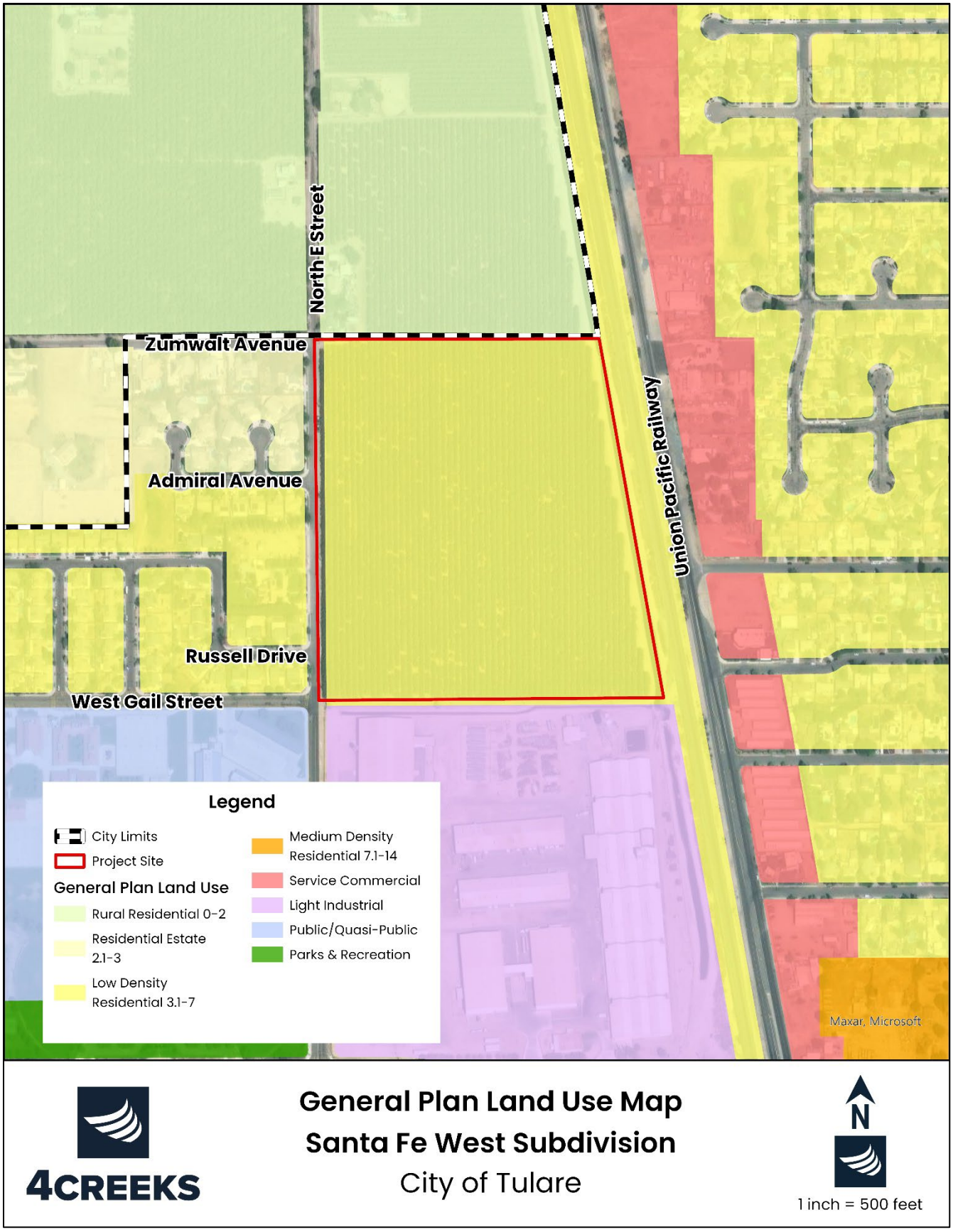


Figure 3-6: General Plan Land Use Map

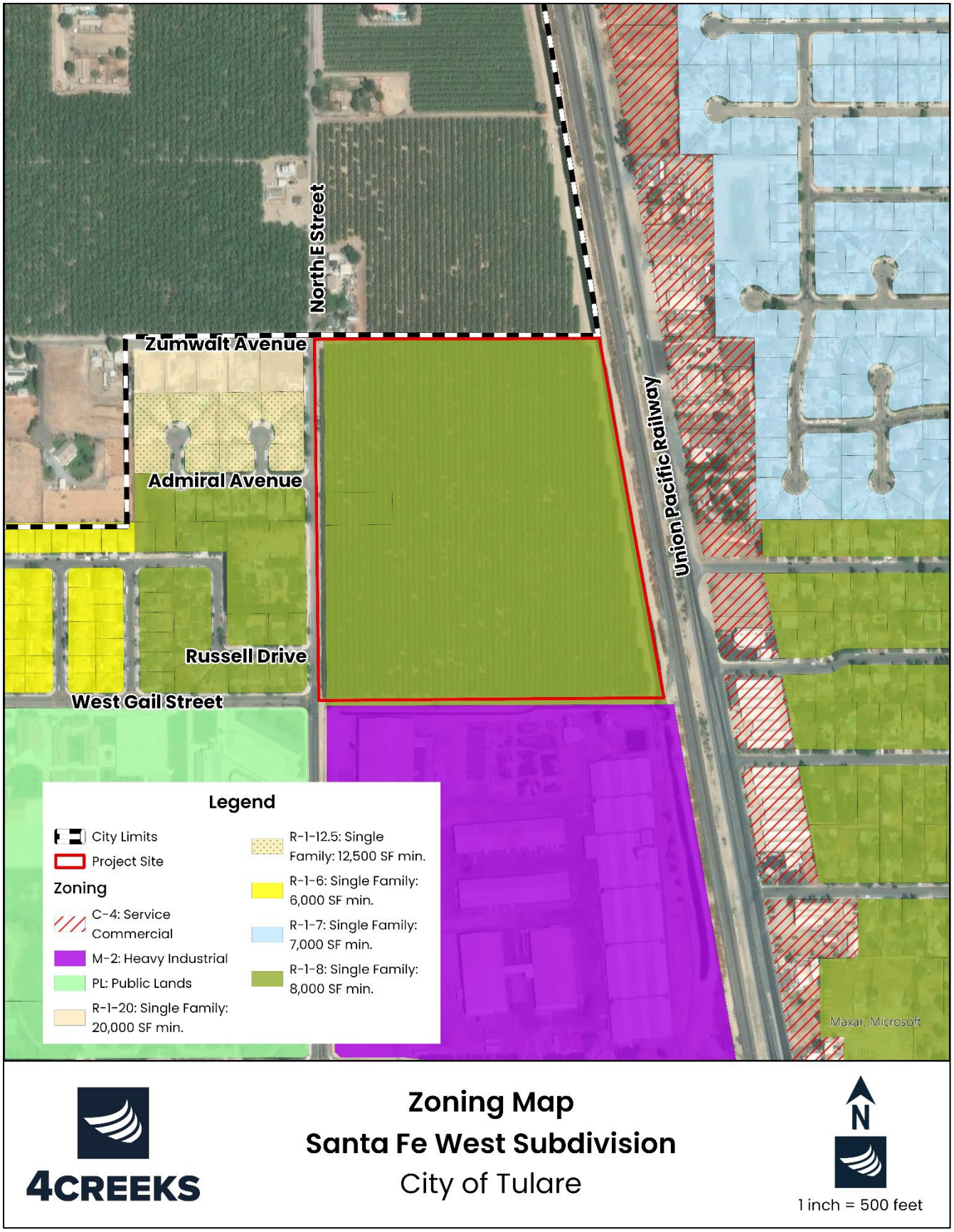


Figure 3-7: Tulare Zoning Map

Discussion

a) Would the Project physically divide an established community?

No Impact: The Project would not physically divide an established community. The Project Site is currently vacant and consists of agricultural land use, containing almond trees. The Project would complement the existing neighborhood to the west and provide interconnectivity with that neighborhood. Therefore, *no impact* would occur.

b) Would the Project 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: The Project would construct 171 single family residential units within the approximately 32.97-acre Project area with lot sizes ranging from 5,000 square-feet to 14,948 square-feet. As illustrated in Figure 3-6 and Figure 3-7, the City of Tulare General Plan Update land use diagram designates the Project site as Low Density Residential, and the City of Tulare Zoning Ordinance designates the Project site as Single-Family Residential zones of R-1-8, R-1-12.5, and R-1-20. The Project proposes to amend the zoning of the Project parcels to be Single-Family Residential R-1-4 (4,000 square-feet minimum) to accommodate smaller lot sizes in the Project. This rezoning will not change the land use classification as 4,000 square feet is still considered to be low-density residential. The Project would not conflict with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the Project would have *no impact.*

XII. MINERAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☐	☑
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 lands use plan?	☐	☐	☐	☑

Environmental Setting

There are no mineral resource zones in Tulare County and there is no mineral extraction occurring on or adjacent to the proposed Project site. Historical mines within the County include mineral deposits of tungsten, copper, gold, magnesium, and lead, however most of these mines are now closed leaving only 37 active mining operations. There are no active mining operations within the City of Tulare.

Regulatory Setting

California State Surface Mining and Reclamation Act: The California State Surface Mining and Reclamation Act was adopted in 1975 to regulate surface mining, prevent adverse environmental impacts, and preserve the state's mineral resources. The California Department of Conservation's Division of Mine Reclamation enforces the Act.

City of Tulare General Plan: The following mineral resource goals and policies in the Conservation and Open Space Element of the Tulare County General Plan are potentially applicable to the proposed Project:

Goal COS-8 To protect the current and future extraction of mineral resources that are important to the City's economy while minimizing impacts of this use on the public and the environment.

- COS-P8.3 Future Resource Development. Provide for the conservation of identified and/or potential mineral deposits within the UDB as areas for future resource development.
- COS-P8.5 Incompatible Development. Proposed incompatible land uses shall not be on lands containing, or adjacent to, identified mineral deposits or along key access roads,

unless adequate mitigation measures are adopted or a statement of overriding considerations stating public benefits and overriding reasons for permitting the proposed use are adopted.

- COS-P8.10 Resources Development. The City will promote the responsible development or identified and/or potential mineral deposits.

Discussion

a) Would the Project 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: The Project Site has no known mineral resources that would be of value to the region and the state's residents. The Project Site is not designated as an important mineral resource recovery Site under the County's General Plan. Therefore, the proposed Project would not result in the loss or impede the mining of regionally or locally important mineral resources. There is *no impact.*

b) Would the Project result in the loss of availability of a locally – important mineral resource recovery Site delineated on a local general plan, specific plan or other lands use plan?

No Impact: No known mineral resources are important to the region, and the Project Site is not designated under the County's General Plan as an important mineral resource recovery Site. Therefore, the proposed Project would not result in the loss of availability of known regionally or locally important mineral resources. There is *no impact.*

XIII. NOISE

Would the Project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☑	☐	☐
b) Generation of excessive ground-borne vibration or groundborne noise levels?	☐	☐	☑	☐
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 public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☑	☐

The following analysis is based on the Acoustical Analysis prepared for the Project by WJV Acoustics, Inc. in February 2025. The Acoustical Analysis is available in Appendix G to this report.

Environmental Setting

The Project site is located at the northeast corner of N. E Street and Gail Street, in Tulare California. The Project site is bordered by agricultural land uses to the north, the Union Pacific Railroad Line (UPRR) to the east, agricultural/industrial land uses to the south, and residential land uses to the west. The Project site is exposed to traffic noise associated with vehicles on N. E Street at the western portion of the Project site and to UPRR railroad operations at the eastern portion of the Project site.

The distance between the centerline of N. E Street to the approximate center point of the closest proposed residential backyards to N. E Street is approximately 75 feet. The distance between the centerline of the UPRR tracks to the approximate center point of the closest proposed residential backyards to UPRR tracks is approximately 135 feet.

The predominant existing noise sources in the vicinity of the Project Site are vehicles on adjacent streets and equipment noise associated with agricultural operations. No commercial airports are located within two miles of the Project Site.

Noise is often described as an unwanted sound, while Sound is the variation in air pressure that the human ear can detect. If the pressure variations occur at least 20 times per second, they can be detected by the human ear. The number of pressure variations per second is called the frequency of sound. The frequency is expressed as cycles per second, called Hertz (Hz).

Ambient noise is the "background" noise of an environment. Ambient noise levels on the proposed Project Site are primarily due to agricultural activities and traffic. Construction activities usually result in an increase in sound above ambient noise levels.

Vibration is sound radiated through the ground. Vibration can result from a source (e.g., train operations, motor vehicles, machinery equipment, etc.), causing the adjacent ground to move, creating vibration waves that propagate through the soil to the foundations of nearby buildings. This effect is a ground-borne vibration.

Sensitive Receptors: Noise level allowances for different land types reflect the varying noise sensitivities associated with those uses. Residences, hotels/motels, hospitals, schools, and libraries are some of the most sensitive types of noise intrusion. Therefore, these have more stringent noise level allowances than most commercial or agricultural uses that are not subject to impacts such as sleep disturbance. The closest sensitive receptors to the Project Ste are the single family homes directly to the west and Los Tules Middle School cater-corner to the southwest.

Regulatory Setting

City of Tulare General Plan: The Noise Element of the City of Tulare General Plan is responsible for establishing noise standards within the City and includes the following goals and policies related to noise that may be applicable to the Project.

Goal NOI-1 Protect the citizens of Tulare County from the harmful effects of exposure to excessive noise.

- NOI-P1.5 Construction Noise. Reduce noise associated with construction activities by requiring properly maintained mufflers on construction vehicles, requiring the placement of stationary construction equipment as far as possible from developed

areas, and requiring temporary acoustical barriers/shielding to minimize construction noise impacts at adjacent receptors. Special attention should be paid to noise-sensitive receptors (including residential, hospital, school, and religious land uses).

- NOI-P1.6 Limiting Construction Activities. The City shall limit construction activities to the hours of 6 am to 10 pm, Monday through Saturday.
- NOI-P1.18 Construction-related Vibration. Evaluate individual projects that use vibration intensive construction activities, such as pile drivers, jack hammers, and vibratory rollers, near sensitive receptors for potential vibration impacts. If construction-related vibration is determined to be perceptible at vibration-sensitive uses, additional requirements, such as use of less vibration-intensive equipment or construction techniques, should be implemented during construction (e.g., drilled piles to eliminate use of vibration-intensive pile driver).

Goal NOI-2 Protect the economic base of Tulare County by preventing the encroachment of incompatible land uses near known noise producing industries, railroads, airports, and other sources.

- NOI-P2.1 New development of residential or other noise-sensitive land uses which require discretionary approval under the Tulare County Zoning Ordinance or the Tulare County Subdivision Ordinance (e.g. use permits, zone changes, subdivision maps, parcel maps) will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the specific design of such projects to reduce noise levels to 60 dB Ldn (or CNEL) or less within outdoor activity areas and 45 dB Ldn (or CNEL) or less within interior living spaces. No noise-sensitive land uses which require approval under the Tulare County Zoning Ordinance or the Tulare County Subdivision Ordinance shall be permitted within the 60 CNEL contour of the public use airports identified in this Plan. Where it is not possible to reduce exterior noise levels within outdoor activity areas to 60 dB Ldn (or CNEL) or less after the practical application of the best available noise reduction technology, an exterior noise level of up to 65 dB Ldn (or CNEL) will be allowed. Under no circumstances will an interior noise 1eve1 exceeding 45 dB Ldn be allowed with the· windows and doors closed. It should be noted that in instances where the windows and doors must remain closed to achieve the required acoustical isolation, mechanical ventilation or air conditioning must be provided.
- NOI-P2.2 Land Use Planning and Noise Compatibility. Use the noise compatibility guidelines in Figure 7-3 and the future-conditions noise contour map in Figure 7-4 to plan for appropriate land uses near existing uses that generate noise. Noise mitigation should be included to ensure that new residential areas and other noise sensitive uses
- are appropriately buffered from significant noise sources.
- NOI-P2.4 Reducing Exposure to Operational Noise. In new residential and mixed-use developments, require that stationary equipment (such as air conditioning units and condensers) be placed in separate spaces, rooftops, or other areas such that noise impacts to interior living areas will be reduced. Similarly, potentially noisy common

spaces, such as trash collection areas and loading zones, should be located away from residential units or other noise sensitive spaces.

- NOI-P2.5 Railway Vibration. As part of discretionary review for development that would place sensitive land uses, such as residential, schools, or hospitals, within 200 feet of an active railway, require a vibration analysis to determine potential vibration impacts to occupants of the planned developments and demonstrate that adopted mitigations would be sufficient to bring vibration impacts to a less than significant level.

Discussion

a) Would the Project result in 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 Impact with Mitigation: Project construction is anticipated to last approximately 2.5 years (69.6 units built/year) and will involve temporary noise sources. The average noise levels generated by construction equipment that will be used in the proposed Project are shown below.

Type of Equipment	dBA at 50 feet
Air Compressors	81
Excavators	81
Concrete/Industrial Saws	76
Cranes	83
Forklifts	75
Generators	81
Pavers	89
Rollers	74
Dozers	85
Tractors	84
Loaders	85
Backhoes	80
Graders	85
Scrapers	89
Welders	74

Table 3-19. Noise levels of noise-generating construction equipment. Source: Federal Highway Administration Construction Noise Handbook.

The City of Tulare General Plan and Noise Ordinance do not specify noise thresholds for construction-related noise sources. However, the General Plan requires the implementation of noise reduction measures for all construction equipment and limits noise-generating activities to daytime hours from Monday through Saturday. The Project will comply with these regulations, and construction will only occur between 6:00 AM and 10:00 PM on those days.

Long-term noise levels resulting from the Project would include single-family homes, which are not normally associated with high operational noise levels.

Traffic Noise Exposure

In the Acoustical Analysis, noise exposure from traffic on N.E Street was calculated for existing and future (2046) conditions using the FHWA Traffic Noise Model and traffic data obtained from the Tulare County Association of Governments (TCAG).

WJVA utilized the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108). The FHWA Model is a standard analytical method used for roadway traffic noise calculations. The model is based upon reference energy emission levels for automobiles, medium trucks (2 axles) and heavy trucks (3 or more axles), with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustic characteristics of the site. Noise level monitoring and a concurrent traffic count were conducted by WJVA along N. E Street, within the project site on January 22, 2025. The noise monitoring site was located approximately 40 feet from the center of N. E Street. The posted vehicle speed limit on N. E Street near the project site was 40 miles per hour (mph).

	N. E Street
Measurement Start Time	11:50 AM
Observed # Autos/Hr.	32
Observed # Medium Trucks/Hr.	4
Observed # Heavy Trucks/Hr.	0
Observed Speed (MPH)	40
Distance, ft. (from center of roadway)	40
Leq, dBA (Measured)	56.6
Leq, dBA (Predicted)	54.4
Difference between Predicted and Measured Leq, dBA	**2.2**
Note: FHWA "soft" site assumed for calculations. Source: WJV Acoustics, Inc	

Table 3-20. Comparison of Measured and Predicted (FHWA Model) Noise Levels

From Table 3-20 it may be determined that the traffic noise levels predicted by the FHWA Model were 2.2 dB lower than those measured for the conditions observed at the time of the noise measurements for N. E Street. This over prediction of the model is due to the relatively low number of vehicles on the roadway, and the impact of extraneous noise sources, and an adjustment to the noise model is not considered to be necessary.

Annual Average Daily Traffic (AADT) data for the above-described roadways were obtained from traffic counts conducted by Metro Traffic Data (existing) and Tulare County Association of Governments (2046). Truck percentages and the day/night distribution of traffic were

estimated by WJVA, based upon previous studies conducted in the project vicinity Table 3-21 summarizes annual average traffic data used to model noise exposure within the project site.

	N. E Street	
	Existing	**2046**
Annual Avenue Daily Traffic (AADT)	151	6,857
Day/Nigh Split (%)	90/10	
Assumed Vehicle Speed (mph)	40	
% Medium Trucks (% AADT)	2	
% Heavy Trucks (% AADT)	1	
Sources: TCAG Metro Traffic Data WJV Acoustics, Inc.		

Table 3-21. Traffic Noise Modeling Assumptions

Using data from Table 3-21, the FHWA Model, annual average traffic noise exposure was calculated for the closest proposed backyards from N. E Street. Table 3-22 provides the noise exposure levels for N. E Street, at the closest proposed residential lots to the roadway.

Roadway	Existing Conditions	2046 Conditions
N. E Street	44	61
Sources: TCAG Metro Traffic Data WJV Acoustics, Inc.		

Table 3-22. Modeled Traffic Noise Levels, N. Willow Avenue, Db, Ldn

Table 3-22 indicates that the traffic noise exposure at the closest lots to N. E Street would be approximately 44 dB Ldn for existing conditions and approximately 61 dB Ldn for future (2046). Such noise exposure levels (2046 traffic conditions) exceed the City's 60 dB Ldn exterior noise level standard and mitigation measures Noise-1 and Noise-5, which include constructing a six foot sound wall along the N.E Street frontage and avoiding building a second story balcony along this same street frontage, are required for compliance with the City's exterior noise level standard along N. E Street. Therefore, the impacts on the Project from traffic exposure will be considered *less than significant with mitigation.*

<u>Railroad Noise Exposure</u>

The UPRR Railway line is located east of the project site. The railroad consists of a doubletrack mainline, and the tracks are elevated above current project site elevation by approximately three (3) feet. The closest grade crossing is located at Prosperity Avenue, approximately 1,500 south of the project site. The eastern portion of the project site, adjacent to the UPRR railroad line, is also impacted by traffic noise associated with vehicles traveling along N. J Street. To quantify project site train noise exposure (as well as traffic along N. J Street), WJVA conducted continuous, 24-hour noise level measurements within the project site.

Noise level monitoring was conducted by WJVA at two locations (LT-1 and LT-2) within the project site over a 2-day period, between January 23-24, 2025. Site LT-1 was located at the northern portion of the project site, and Site LT-2 was located at the southern portion of the project site. Noise levels were measured continuously, using automated noise level meters. Both noise measurement sites were located at a setback distance of approximately 125-135 feet from the UPRR railroad line, the approximate setback distance of the closest proposed residential outdoor activity areas (backyards). Site LT-1 was located at the northern portion of the project site, and Site LT-2 was located at the southern portion of the project site.

Noise monitoring equipment consisted of Larson-Davis Laboratories Model LDL-820 sound level analyzers equipped with B&K Type 4176 1/2" microphones. The equipment complies with the specifications of the American National Standards Institute (ANSI) for Type I (Precision) sound level meters. The noise level data is summarized below in Table 3-23

Noise Measurement Site	24-Hour Noise Level Exposure, DBA Ldn Average (Range)
LT-1	70.2 (68.6-71.3)
LT-2	70.8 (69.1-72.0)
Source: WJV Acoustics, Inc.	

Table 3-24. Summary of Measured Train Noise Levels, January 23 & 24, 2025

As described above in Table 3-24, the 24-hour noise level measurement data indicates that project site noise exposure is approximately 70 dB Ldn at site LT-1 and approximately 71 dB Ldn at site LT-2. Noise exposure levels at both sites indicate that project site noise exposure exceeds the City of Tulare noise level standard of 60 dB Ldn, and mitigation measures Noise-2 and Noise-5, which includes constructing a 12.5 foot sound wall along the UPRR frontage and avoiding building a second story balcony along this same railroad frontage must be incorporated into project design to return the noise to allowable standards. Therefore, the impacts on the Project from railroad exposure will be considered *less than significant with mitigation.*

<u>Interior Noise Mitigation</u>

The City of Tulare interior noise level standard is 45 dB Ldn. the worst-case noise exposure at second-floor locations would remain approximately 61 dB Ldn at the lots adjacent to N. E Street and approximately 71 dB Ldn at the lots adjacent to the UPRR railroad line. This means that proposed residential construction would need to be capable of providing a minimum outdoor-to-indoor noise level reduction (NLR) of 16 dB (61-45=16) for the first row of homes along N. E Street and 26 dB (71-45=26) for the first row of homes adjacent to the UPRR line.

However, it may be assumed that residential construction methods complying with current building code requirements will reduce exterior noise levels by up to 25 dB if windows and doors are closed. This will be sufficient for compliance with the City's 45 dB Ldn interior standard for the homes adjacent to N. E. Street.

Based upon the information available at the time this analysis was prepared, WJVA recommends mitigation measures Noise-3 and Noise-4 be incorporated into project design. These mitigation measures mandate that all north-, south-, and east-facing windows within the second stories of the homes at Lot 17, Lot 33 through Lot 53 be constructed using windows with a minimum STC 35 rating and requiring that it be possible for windows and doors to remain closed for sound insulation means that air conditioning or mechanical ventilation will be required. Once incorporated, the impacts from noise on this Project will be *less than significant with mitigation.*

b) Would the Project result in generation of excessive ground-borne vibration or groundborne noise levels?

Less Than Significant Impact: According to the General Plan, projects that use vibration-intensive construction activities—such as pile drivers, jackhammers, and vibratory rollers—near sensitive receptors must be evaluated for potential vibration impacts. The Project would not utilize this type of equipment during construction, and as such, the Project would not generate excessive ground-borne vibration or ground-borne noise levels.

Regarding operational vibration impacts, the Project site is located adjacent to the UPRR, which is a potential source of groundborne vibration. As detailed in the Acoustical Analysis (Appendix G) prepared for the Project, vibration measurements from a similar railroad corridor at a closer distance (50 feet) recorded maximum vibration levels of 49.3 VdB. These levels are well below the Federal Transit Administration threshold of 80 VdB for residential uses. Given that the closest residential lots within the Project are set back approximately 125 feet from the UPRR tracks—more than twice the distance of the reference measurements—vibration levels at the Project site are expected to be even lower. The analysis concluded that vibration levels generated by train operations would be well below thresholds of significance and would not result in annoyance or structural damage.

Therefore, construction and operational vibration impacts would be *less than significant.*

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 public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

Less Than Significant Impact: The Project Site is approximately two miles from Mefford Field Airport; however, the Project Site is not within the airport land use plan for that airport nor is the Project Site within an elevated noise contour. As such, the Project would not expose people residing or working in the Project area to excessive noise levels. Therefore, impacts are considered to be *less than significant*.

Mitigation Measures

Mitigation Measure Noise-1: Construct a sound wall or earthen berm and sound wall combination with a minimum height of six (6) feet above project lot grade is constructed along the extent of the project site N. E Street frontage. Suitable construction materials include concrete blocks, masonry, or stucco on both sides of a wood or steel stud wall.

Mitigation Measure Noise-2: Construct a sound wall or earthen berm and sound wall combination with a minimum height of twelve and a half (12.5) feet above project lot grade is constructed along the entire Union Pacific Railroad frontage of the Project Site. The sound wall should extend from Lots 17, 33, 34 through (and including) Lot 53 and shall also extend north across the full width of Zumwalt Avenue, including the cul-de-sac, to ensure complete coverage of all residential lots adjacent to the UPRR. Suitable construction materials include concrete blocks, masonry, or stucco on both sides of a wood or steel stud wall. The 12.5-foot sound wall would reduce exterior noise levels within individual backyards to below 60 dB Ldn.

Mitigation Measure Noise-3: To ensure compliance with the City of Tulare interior noise standard of 45 dB Ldn for second-story spaces in homes closest to the Union Pacific Railroad (specifically Lots 17 and Lots 33 through 53), one of the following measures shall be implemented:

1. All north-, south-, and east-facing facades of second-story walls shall be constructed with windows rated at a minimum Sound Transmission Class (STC) 35; or
2. Homes on these lots shall be limited to single-story construction only; or
3. A detailed interior noise analysis shall be conducted once construction plans are finalized, and if interior noise levels are found to exceed 45 dB Ldn, higher-rated STC windows or other necessary mitigation measures shall be incorporated into the project design to ensure compliance.

XIV. POPULATION AND HOUSING

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☑	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

Environmental Setting

The United States Census Bureau reported that the population of the City of Tulare, located in California's Central Valley, was 70,693 in 2022. This marks an increase from the 2010 census, which recorded a population of 59,275, representing a growth of approximately 19.3% over the 12-year period. Several factors have contributed to this population growth, including increased job availability in the agricultural and manufacturing sectors, expanded housing developments to accommodate new residents, and enhancements to the city's infrastructure capacity. Tulare's strategic location along major transportation routes like Highway 99 has also played a significant role in attracting both businesses and individuals to the area.

Regulatory Setting

The size of the population in the City of Tulare is controlled by the development code and Land Use Element of the General Plan. These documents regulate the number of dwelling units per acre allowed on various land uses and establish minimum and maximum lot sizes. These factors have a direct impact on the City's population size.

Discussion

a) **Would the Project induce substantial unplanned population growth in an area, either directly (for example, by new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

Less Than Significant Impact: The Project proposes to construct 171 single-family residential dwelling units on 32.97 acres. According to the Census, the City's average household size is 3.39 persons. Based on this average household size, the anticipated population increase because of the Project is approximately 580 persons (171 units × 3.39 persons per unit). This increase would represent about a 0.8 percent population increase over existing conditions (70,693 persons in the City in 2022), which does not constitute a substantial increase in growth and population. Moreover, the Project Site is zoned and designated by the General Plan for single-family residential, and the Project is consistent with this underlying designation. As such, the Project represents planned growth in the area as part of the City's efforts to accommodate growth while discouraging fragmented, isolated development. The Project would be accessible from existing roadways as well as provide roadway interconnectivity with the existing single-family development to the west in a cohesive development pattern for the City. Therefore, impacts would be *less than significant*.

b) **Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

No Impact: There Project Site is currently an agricultural land use and proposes to subdivide 32.97 acres for the construction and operation of 171 single-family residences. The Project would not involve the removal of existing residences and would not displace any people. Therefore, *no impact* would occur.

XV. PUBLIC SERVICES

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable serve ratios, response times of other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☑	☐
ii. Police protection?	☐	☐	☑	☐
iii. Schools?	☐	☐	☑	☐
iv. Parks?	☐	☐	☑	☐
v. Other public facilities?	☐	☐	☑	☐

Environmental Setting

Fire: The Project Site is served by the City of Tulare Fire Department, which will continue to provide fire protection services upon development. The nearest fire station is the Tulare City Fire Station 63, located approximately .65 miles northeast of the Project Site. With this proximity, the fire department can maintain efficient response times to the new residential development. The Project will adhere to all fire safety regulations, including the installation of fire hydrants and compliance with building codes, to ensure adequate fire protection for future residents.

Police: Law enforcement services are provided to the Project Site by the Tulare Police Department. The Tulare Police Department headquarters is located approximately 1.82 miles southeast of the Project Site. The department is committed to maintaining public safety and regularly adjusts patrol areas as needed. The Project would incorporate features such as adequate street lighting and secure neighborhood planning.

Schools: The Project Site is located within the Tulare City School District and Tulare Joint Union High School District. Tulare Western High School is approximately 1.1 miles south of the Project

Site. Heritage Elementary School is about 0.3 miles northwest, and Los Tules Middle School is cater-corner to the southwest.

Regulatory Setting

School Districts in the City of Tulare are regulated by the California Department of Education, and the Tulare Police Department is regulated by the California Department of Justice. Objectives and Policies relating to Law Enforcement, Fire Protection, Parkland, and School Facilities are included in the Land Use Element and Conservation and Open Space Element of the Tulare's General Plan. The Goals and Policies potentially applicable to the proposed project are as follows:

- COS-P4.1 Parkland/Open Space Standards: The City's goal is to provide 4 acres of developed parkland per 1,000 residents. New residential or mixed-use developments containing a residential component may be required to provide parkland, or pay in-lieu fees, in this ratio as directed by the City.
- LU-P11.3 System Expansion: The City shall require new development be responsible for expansion of existing facilities such as water systems, sewer systems, storm drainage systems, parks, and other capital facilities made necessary to serve the new development.
- LU-P11.9: Adequate City Service Capacity: The City shall only approve new development when it can be demonstrated by the applicant that adequate public service capacity in the area is or will be available to handle increases related to the project. School capacity will be discussed in the review of each development, and the City will ensure early coordination with the school districts serving the site. School capacity will be addressed as allowed under State law.
- LU-P11.26 Evaluate Fiscal Impacts: The City shall evaluate the fiscal impacts of new development and encourage a pattern of development that allows the City to provide and maintain a high level of urban services (including, but not limited to, water, sewer, transportation, fire stations, police stations, libraries, administrative, and parks), and community facilities and utility infrastructure, as well as attract targeted businesses and a stable labor force.

Discussion

a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable serve ratios, response times of other performance objectives for any of the public services:

i. Fire protection?

Less Than Significant Impact: The City of Tulare Fire Department will provide fire protection services to the proposed development. The nearest fire station is the Tulare City Fire Station

63, located approximately 0.65 miles northeast of the Project Site. The addition of 171 residential units will increase the demand for fire protection services. This increase in service demand will be compensated for by the development through the payment of development impact fees. These fees are intended to address any potential deficits in fire protection services due to the new development.

The timing of when new fire service facilities would be required, or details about their size and location, cannot be determined until such facilities are planned and proposed. Any attempt to analyze impacts on a potential future facility would be speculative at this time. As new or expanded fire service facilities become necessary, construction or expansion projects would be subject to their own separate California Environmental Quality Act (CEQA) review to identify and mitigate any potential environmental impacts. Therefore, the impact is *less than significant.*

ii. Police protection?

Less Than Significant Impact: The Tulare Police Department will provide services to the proposed development. The Tulare Police Department headquarters is located approximately 1.82 miles southeast of the Project Site. The addition of 171 residential units will increase the demand for police services. The Project would be required to pay a per-dwelling-unit development impact fee as per City Resolution Number 03-4988, which would help support and expand, when needed, police protection services due to new development.

The timing of when new police service facilities would be required, or details about their size and location, cannot be known until such facilities are planned and proposed, and any attempt to analyze impacts to a potential future facility would be speculative. As new or expanded police service facilities become necessary, construction or expansion projects would be subject to their own separate CEQA review to identify and mitigate any potential environmental impacts. Therefore, the impact is *less than significant.*

iii. Schools?

Less than Significant Impact: The Project is within the Tulare City School District and the Tulare Joint Union High School District. With the addition of 171 single-family residential units, the number of students in the school district is expected to increase. Based on the City's average household size of 3.39 persons, and assuming a standard student generation rate, this could lead to an increase in enrollment at local schools.

New development is required by state law to pay development impact fees to the school districts at the time of building permit issuance. These impact fees are used by the school districts to maintain existing facilities and develop new ones as needed. Moreover, payment of these fees is considered by law to fully mitigate new development's impacts, such as the Project's. Therefore, as the Project would be required to pay school impact fees, the impact would be *less than significant.*

iv. Parks?

Less Than Significant Impact: The addition of 171 new residential units would result in increased use of existing parks. The City's 2035 General Plan Policy states that new residential development may be required to provide additional parkland or pay in-lieu fees to ensure adequate recreational spaces for residents. According to the City of Tulare's standard of providing 4 acres of developed parkland per 1,000 residents, the Project should contribute approximately 2.36 acres of parkland to adequately serve the new population (590 residents / 1,000 residents × 4 acres = 2.36 acres).

The Project does provide any park space within the proposed development; therefore, the Project will be required to pay in-lieu fees as stipulated by the City's 2035 General Plan policies. These development impact fees contribute to the maintenance and expansion of public parks and recreational facilities throughout the City. The City has adopted a Quimby Act fee, and this development would be required to pay these fees. Therefore, impacts would be *less than significant*.

v. Other public facilities?

Less Than Significant Impact: The Project would generate new residents on the Project Site, which could result in increased demand of other public facilities, such as the Tulare Public Library and increased demand for library materials. However, it is anticipated that the Project-generated population increase would not be a level that would create substantial capacity or service level problems that would require the provision of new or expanded public facilities in order to maintain an acceptable level of service, including the Tulare Public Library. Even so, the Project would be subject to development impact fees and other relevant conditions of approval to address public facilities and maintain adequate service levels as a result of new development, such as the Project. Therefore, impacts would be *less than significant*.

XVI. RECREATION

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☑	☐
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?	☐	☐	☑	☐

Environmental Setting

There are 20 parks that are owned and operated by the City. Prosperity Sports Park is the closest recreational area to the Project Site and is located approximately 0.3 miles southwest of the Project Site.

Regulatory Setting

City of Tulare General Plan: The Conservation and Open Space Element of the City of Tulare General Plan contains the following recreational resource goals and policies potentially applicable to the project.

Goal COS-4 To provide parks and recreation facilities and services that adequately meet the existing and future needs of all Tulare residents.

- COS-P4.1 Parkland/Open Space Standards. The City's goal is to provide 4 acres of developed parkland per 1,000 residents. New residential or mixed-use developments containing a residential component may be required to provide parkland, or pay in-lieu fees, in this ratio as directed by the City.
- COS-P4.5 Fair Share Responsibilities. The City shall ensure all future residential development is responsible for its fair share of the City's cumulative park and recreational service and facilities maintenance needs.

- COS-P4.6 Land Dedication. The City shall continue its practice of requiring the dedication of community and neighborhood park lands as a condition of approval for large residential development projects (50 or more lots), if applicable.
- COS-P4.7 Fees In Lieu of Parkland Dedication. The City shall allow the payment of fees in lieu of parkland dedication, especially in areas where dedication is not feasible, as provided under the Quimby Act.

Discussion

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?

Less Than Significant Impact: The addition of 171 new single-family residential units from the Project would result in an estimated population increase of approximately 580 residents (171 units × 3.39 persons per unit, based on the City's average household size). According to the City of Tulare's standard of providing 4 acres of developed parkland per 1,000 residents, the Project should contribute approximately 2.32 acres of parkland to adequately serve the new population (580 residents / 1,000 residents × 4 acres = 2.32 acres).

The Project does provide any park space within the proposed development; therefore, the Project will be required to pay in-lieu fees as stipulated by the City's 2035 General Plan policies. These development impact fees contribute to the maintenance and expansion of public parks and recreational facilities throughout the City. By providing both an on-site park and contributing financially to the City's park system, the Project helps mitigate potential impacts on existing parks.

Furthermore, nearby parks such as Prosperity Sports Park are within a reasonable distance from the Project Site and have the capacity to accommodate additional users without substantial deterioration. The combination of the on-site amenities and financial contributions ensures that the Project would not increase the use of existing neighborhood and regional parks to the extent that substantial physical deterioration would occur or be accelerated.

Therefore, with adherence to City requirements for parkland provision and in-lieu fees, the impact on recreational facilities is considered *less than significant.*

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?

Less Than Significant Impact: The proposed project does not include recreational facilities and would not increase environmental impacts beyond those associated with the proposed project. The impact is *less than significant.*

XVII. TRANSPORTATION

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☑	☐
b) Conflict or be inconsistent with the CEQA guidelines Section 15064.3, Subdivision (b)?	☐	☐	☑	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
d) Result in inadequate emergency access?	☐	☐	☐	☑

The following analysis is based on the Transportation Impact Analysis Report (TIA) prepared for the Project by 4Creeks, Inc., dated Mach 2025, which is available in Appendix H to this report.

Environmental Setting

Vehicular Access: Each residential lot would include a private driveway and attached garage for each home. Access to the Project is provided via N. E Street, W. Gail Avenue, N. West Street, Zumwalt Avenue, and W. Prosperity Avenue.

N. E Street is a two-lane north-south collector from W. Prosperity Avenue to Zumwalt Avenue. The speed limit is 40 mph.

W. Gail Avenue is a two-lane east-west local road between N. West Street and N. E Street. The speed limit is 35 mph, except for the school zone segment, which is 25 mph. Los Tules Middle School and Heritage Elementary School are located on W. Gail Avenue, between Northridge Street and N. E Street.

N. West Street is a two-lane arterial roadway that runs north-south through the city. The speed limit is 40 mph.

Zumwalt Avenue is a two-lane east-west collector to the north of W. Prosperity Avenue. The speed limit is 35 mph.

W. Prosperity Avenue is a two-lane east-west arterial through the city. The speed limit is 40 mph. Prosperity Sports Park is located on W. Prosperity Avenue just east of N. E Street. There is an at-grade Union Pacific Railroad (UPRR) crossing just west of the signalized intersection with N. J Street. The at-grade crossing currently has cantilever flashers and automatic gates for both the EB and WB directions.

Parking: During construction, workers would utilize temporary on-site construction staging areas for parking vehicles and equipment. During Project operations, each residential lot would include a private driveway and attached garage for each home.

Pedestrian and Cyclist Connectivity: Sidewalks would be added along all internal residential streets, and they would connect to existing and future sidewalks to the north, west, and south. A new Class I bike path will also be added to the western border of the Project site on North E Street. These features would provide connectivity for pedestrians and cyclists within the Project area and offsite.

Intersections

The City of Tulare identified five intersections for analysis. Those intersections and the existing conditions LOS were calculated for each peak period and are shown in Table 3-25

#	Intersection	Peak Hour[1]	Existing Conditions	
			Delay[2]	LOS[3]
1	N. E St./W. Prosperity Ave.	AM	12.9	B
		PM	13.8	B
2	J St./W. Prosperity Ave.	AM	11.6	B
		PM	11.8	B
3	N. West St./W. Gail Ave.	AM	16.3	C
		PM	12.2	B
4	N. West St./Zumwalt Ave.	AM	17.0	C
		PM	17.8	C
5	N. E St./Zumwalt Ave.	AM	8.6	A
		PM	8.4	A

Notes:

1. AM – morning peak hour, PM – evening peak hour

2. Delay – Entire intersection weighted average control delay expressed in seconds per vehicle for signalized and all way stop-controlled intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.

3. LOS – Level of Service. **Bold** indicates unacceptable Level of Service. **Red** indicates a significant impact.

Table 3-25: Existing Level of Service Summary

All five study intersections operate at acceptable service levels (LOS D or better) during the AM and PM peak hours.

Regulatory Setting

City of Tulare Improvement Standards: The City's Improvement Standards are developed and enforced by the City's Engineering Division to guide the development and maintenance of City roads. The cross-section drawings contained in the City Improvement Standards dictate the development of roads within the city.

Tulare City General Plan: The Transportation and Circulation Element of the City of Tulare General Plan contains the acceptable Level of Service (LOS) for roadways.

- TR-P2.3 Level of Service Standard. The City shall maintain Level of Service "D," as defined in the Highway Capacity Manual (published by the Transportation Research Board of the National Research Council), as the minimum desirable service level at which freeways, arterial streets, collector streets, and their intersections should operate.
- TR-P2.6 Highway Right-of-Way. The City shall work with Caltrans to ensure that new development projects include the dedication of land to match the ultimate right-of-way as delineated in the Caltrans Transportation Concept Reports.
- TR-P2.10 Roadway Improvements. The City shall improve existing roadway links and intersections which are identified as operating below Level of Service "D" standard or have other significant existing safety or operational deficiencies.
- TR-P2.14 Driveway/Curb Cut Consolidation. The City shall encourage the consolidation of driveways, access points, and curb cuts along existing developed major arterials or arterials when new development or a change in the intensity of existing development or land uses occurs or when traffic operation or safety warrants.
- TR-P2.27 Orientation of Subdivision Away from Arterials. The City shall require residential development to be oriented away (side-on or rear-on) from major arterials and arterials, and properly buffered from these roadway types to preserve the carrying capacity on the street and protect the residential environment. No single-family residence driveways are allowed on collector streets.
- TR-P6.2 Provision of Sidewalks for new Development. The City shall require all new development to provide sidewalks or other suitable pedestrian facilities. Whenever feasible, pedestrian paths should be developed to allow for unobstructed pedestrian flow to major destinations such as bus stops, schools, parks, and shopping centers.

CEQA Guidelines Section 15064.3, Subdivision (b): Criteria for Analyzing Transportation Impacts

(1) **Land Use Projects.** Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, Projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the Project area compared to existing conditions should be considered to have a less than significant transportation impact.

(2) **Transportation Projects**. Transportation Projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity Projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, a lead agency may tier from that analysis as provided in Section 17452.

(3) **Qualitative Analysis.** If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the Project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many Projects, a qualitative analysis of construction traffic may be appropriate.

(4) **Methodology.** A lead agency has discretion to choose the most appropriate methodology to evaluate a Project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a Project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the Project. The standard of adequacy in Section 17451 shall apply to the analysis described in this section.

Discussion

a) Would the Project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less Than Significant Impact: The Project does not conflict with the transportation and circulation goals outlined in the City's General Plan and meets applicable standards and policies.

Intersection LOS analysis was performed using the Synchro Studio version 12 (Synchro 12) software program. Synchro 12 supports HCM 7th Edition methodologies and was deemed an acceptable program by City of Tulare staff for assessment of traffic impacts for the Project. LOS

can be determined for both signalized and stop controlled intersections. There are both signalized and stop-controlled intersections under analysis as part of this TIA. The LOS assessment under all scenarios is based on current traffic controls unless otherwise noted. Various roadway parameters, such as geometry, traffic volumes, and properties (peak hour factors, turn pocket length, etc.) were used to accurately model the travel delay and LOS for each study scenario. Table 3-26 shows the LOS at each intersection included in the study plus Project conditions.

#	Intersection	Control	Peak Hour[1]	Existing Conditions Plus Project Conditions	
				Delay[2]	LOS[3]
1	N. E St./W. Prosperity Ave.	Signalized	AM	12.9	B
			PM	13.8	B
2	J St./W. Prosperity Ave.	Signalized	AM	11.6	B
			PM	11.8	B
3	N. West St./W. Gail Ave.	Westbound Stop Controlled	AM	16.3	C
			PM	12.2	B
4	N. West St./Zumwalt Ave.	Two-way Stop Controlled	AM	17.0	C
			PM	17.8	C
5	N. E St./Zumwalt Ave.	Eastbound Stop Controlled	AM	8.6	A
			PM	8.4	A

Notes:

1. AM – morning peak hour, PM – evening peak hour

2. Delay – Entire intersection weighted average control delay expressed in seconds per vehicle for signalized and all way stop-controlled intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.

3. LOS – Level of Service. **Bold** indicates unacceptable Level of Service. **Red** indicates a significant impact.

Table 3-26: Intersection Level of Service Analysis – existing Plus Project Conditions

According to the Transportation Impact Study (Appendix H), prepared for the Project by 4Creeks, Inc., and table 3-26, the Project would maintain an acceptable LOS D at, all five study intersections remain within the City's acceptable level of service (LOS D or better) for all study scenarios, remaining consistent with Policy TR-P2.3 of the General Plan. Any temporary congestion during construction would be short-term and mitigated through appropriate traffic management plans.

The Project would implement frontage improvements, including sidewalks, enhancing pedestrian access in accordance with Policy TR-P6.2. These improvements would provide unobstructed pathways for pedestrians, facilitating access to nearby destinations. Additionally,

the Project design complies with Policy TR-P2.27 by orienting residential development away from major arterials, protecting residential environments while preserving roadway capacity.

Vehicular access would be provided through three access points on North E Street with driveway locations carefully designed to avoid curb cut redundancies and ensure safe and efficient traffic flow. This design is consistent with Policy TR-P2.14, which promotes driveway consolidation to enhance traffic safety and operations.

Furthermore, improvement plans would be submitted for review by the City Engineer to ensure all new streets and intersections meet City standards.

Based on the analysis presented in this report, all five study intersections remain within the City's acceptable level of service (LOS D or better) for all study scenarios. Therefore, no improvements are currently recommended. However, the southbound left turn pocket capacity is possibly exceeded during the AM peak hour for the Cumulative (Year 2046) Plus project scenario.

Per the analyses completed as part of this TIA, the southbound left turn pocket capacity is exceeded during the Cumulative (Year 2046) Plus Project scenario. The City should consider lengthening the left turn pocket at Intersection 1 (N. E St./W. Prosperity Ave.) from 150' to 200' to meet the queuing demand at that signalized intersection.

Given the alignment with City policies, the Project would have a *less than significant impact* on the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

b) Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)?

Less than Significant Impact: Senate Bill (SB) 743 requires that relevant CEQA analysis of transportation impacts be conducted using a metric known as vehicle miles traveled (VMT) instead of Level of Service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the Project adds excessive car travel onto the roads, the project may cause a significant transportation impact.

Based on the findings of the VMT Analysis Memorandum found in Appendix H, the Project has been screened out from requiring a detailed VMT analysis due to its location in an area identified as a low VMT-generating area within the City. This determination aligns with the guidelines provided by the City dated June 26, 2020, which permit the screening of projects in low VMT areas as part of CEQA compliance.

The City's VMT guidance allows certain projects to be screened out from requiring a VMT analysis if they meet specific criteria. While most of the criteria were not applicable to the Project, the map-based screening criterion was investigated. The City's VMT guidance includes

a map showing average trip distances by Traffic Analysis Zone (TAZ). If a project's average trip distance is at least 15 percent below the regional average, it qualifies as being in a low VMT area, exempting it from further analysis. The Project is in an area of Tulare with an average trip distance of 9 miles, which qualifies as being in a low VMT area, and requiring no further VMT analysis.

The VMT Analysis Memorandum confirms that no additional VMT modeling is necessary as the Project's characteristics and its location indicate it would not contribute to significant increases in regional or Citywide VMT. Therefore, the Project's impact on VMT is considered *less than significant*.

c) Would the Project 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: The proposed Project does not include any features that could result in increased hazards due to a geometric design feature. All proposed road designs will be reviewed and approved by the City Engineering Division. Moreover, the proposed site plan also illustrated that no sharp curves or dangerous intersections or incompatible uses are proposed by the Project. Therefore, *no impact* would occur.

d) Would the Project result in inadequate emergency access?

No Impact: This Project would not result in inadequate emergency access. Emergency access to the Project Site would be from North E Street (via Russell Drive and another public access road). A network of local roads within the Project's subdivision would provide full access onto and off of the Project Site, including for emergency vehicles to and from the Project Site. Therefore, *no impact* would occur.

XVIII. TRIBAL CULTURAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a Site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. 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	☐	☑	☐	☐
ii. 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 I 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.	☐	☑	☐	☐

The following analysis is based on the Cultural Resources Technical Memorandum prepared for the Project by Taylored Archaeology in January 2025. The Technical Memorandum is available in Appendix D to this report.

Environmental Setting

Of the main groups inhabiting the Tulare County area, the Southern Valley Yokuts occupied the largest territory. The Yokuts numbered about 25,000 and were clustered into about 50 independent local subtribes. Historians believe approximately 22 villages stretched from Stockton northerly to the Tehachapi Mountains southerly, although most were concentrated

around Tulare Lake, Kaweah River, and its tributaries. As a result, numerous cultural resource sites have been identified in Tulare County.

Cultural Resources Record Search and Native American Consultation
A cultural resources records search was conducted by Taylored Archaeology for Santa Fe West Subdivision Map Project, which involves the development of 171 single-family residential lots on approximately 32.97 acres in Tulare, California. The search included a half-mile radius around the Project Site and reviewed various records, including the Archaeological Resources Directory, National Register of Historic Places (NRHP), and California Historical Resources Information System. The search revealed that no prehistoric or historic cultural resources are recorded within the Project Site. Three historic-era resources were identified within a half-mile radius but are over 0.75 miles away from the Project boundary and are not expected to be impacted by the Project.

A Sacred Lands File search was also requested from the Native American Heritage Commission (NAHC), and the results were negative, indicating no known sacred lands within the Project area. However, this does not rule out the presence of cultural resources, and consultation with local tribes was recommended.

Tribal Consultation
In compliance with AB 52, the Santa Rosa Rancheria Tachi Yokut Tribe was sent a letter on March 5, 2025, inviting the tribe to consult with the City regarding the Project. A copy of the letter is available in Appendix D to this report. The 30-day response window closed on April 6, 2025. No response or request for consultation was received.

Regulatory Setting

Tribal Cultural Resource (TCR): Tribal Cultural Resources can include Site features, places, cultural landscapes, sacred places, or objects which are of cultural value to a Tribe. It is either listed on or eligible for the CA Historic Register or a local historic register or determined by the lead agency to be treated as TCR.

Native American Reserve (NAR): This designation recognizes tribal trust and reservation lands managed by a Native American Tribe under the United States Department of the Interior's Bureau of Indian Affairs over which the County has no land use jurisdiction. The County encourages the adoption of tribal management plans for these areas that consider compatibility and impacts upon adjacent area facilities and plans.

Health and Safety Code, Section 7050.5: Section 7050.5 of the California Health and Safety Code requires that construction or excavation be stopped near discovered human remains until the county coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission (NAHC). CEQA Guidelines (Public Resources Code

Section 5097) specify the procedures to be followed in case of the discovery of human remains on non-Federal land. The disposition of Native American burials falls within the jurisdiction of the NAHC.

City of Tulare General Plan: The City of Tulare General Plan includes the following goals and policies pertaining to tribal cultural resources:

Goal COS-5 To manage and protect sites of cultural and archaeological importance for the benefit of present and future generations.

- COS-P5.1 Archaeological Resources. The City shall support efforts to protect and/or recover archaeological resources.
- COS-P5.6 Protection of Resources with Potential State or Federal Designations. The City shall encourage the protection of cultural and archaeological sites with potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources. Such sites may be of statewide or local significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values.
- COS-P5.9 Discovery of Archaeological Resources. In the event that archaeological/ paleontological resources are discovered during site excavation, grading, or construction, the City shall require that work on the site be suspended within 100 feet of the resource until the significance of the features can be determined by a qualified archaeologist/ paleontologist. If significant resources are determined to exist, an archaeologist shall make recommendations for protection or recovery of the resource. City staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the City.
- COS-P5.10 Discovery of Human Remains. Consistent with Section 7050.5 of the California Health and Safety Code and CEQA Guidelines (Section 15064.5), if human remains of Native American origin are discovered during project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). If any human remains are discovered or recognized in any location on the project site, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlie adjacent human remains until:
    - The Tulare County Coroner/Sheriff has been informed and has determined that no investigation of the cause of death is required; and
    - If the remains are of Native American origin,
        - The descendants of the deceased Native Americans have made a timely recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resources Code Section 5097.98.

    - The Native American Heritage Commission was unable to identify a descendant, or the descendant failed to make a recommendation within 24 hours after being notified by the commission, or
    - The landowner or his or her authorized representative rejects any timely recommendations of the descendent, and mediation conducted by the Native American Heritage Commission has failed to provide measures acceptable to the landowner.
- COS-P5.11 Impact Mitigation. If preservation of cultural/historical resources is not feasible, the City shall make every effort to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records.
- COS-P5.12 Mitigation Monitoring for Historical Resources. The City shall develop standards for monitoring mitigation measures established for the protection of historical resources prior to development.
- COS-P5.13 Alteration of Sites with Identified Cultural Resources. When planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. The City shall permit development in these areas only after a site-specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and mitigation measures proposed for any impacts the development may have on the resource.
- COS-P5.14 Education Program Support. The City shall support local, state, and national education programs on cultural and archaeological resources.
- COS-P5.15 Solicit Input from Local Native Americans. The City shall solicit input from the local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.
- COS-P5.16 Confidentiality of Archaeological Sites. The City shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect resources that are determined to exist. An archaeologist/paleontologist shall make recommendations for protection or recovery of the resource. City staff shall consider such recommendations and implement them where they are feasible in light of project design as previously approved by the City.
- COS-P5.17 Cooperation of Property Owners. The City shall encourage the cooperation of property owners to treat cultural resources as assets rather than liabilities and encourage public support for the preservation of these resources.
- COS-P5.18 Archaeological Resource Surveys. Prior to project approval, the City shall require project applicant to have a qualified archaeologist conduct the following activities: (1) conduct a record search at the Regional Archaeological Information Center located at California State University Bakersfield and other appropriate historical repositories, (2) conduct field surveys where appropriate, and (3) prepare technical reports, where appropriate, meeting California Office of Historic Preservation Standards (Archaeological Resource Management Reports).

Discussion

a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a Site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. 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 Impact with Mitigation Incorporated: The Project would not cause a substantial adverse change in the significance of a tribal cultural resource, nor is it listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources. Based on the results of the records search, no previously recorded cultural resources are located within the Project Site. Although no cultural resources were identified, Mitigation Measures CUL-1 and CUL-2, required for potential impacts to cultural resources, would also address potential impacts to inadvertent discovery of tribal cultural resources. Therefore, impacts would be *less than significant with mitigation incorporated.*

ii. 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 Impact with Mitigation Incorporated: The City, as lead agency, has determined there are no known tribal cultural resources located within the Project area. Additionally, there are not believed to be any human remains buried within the Project area's vicinity, including internment of Native Americans. However, albeit unlikely, there remains the possibility of inadvertent discovery of previously unknown tribal cultural resources. Although no cultural resources were identified, Mitigation Measures CUL-1 and CUL-2, required for potential impacts to cultural resources, would also address potential impacts to inadvertent discovery of tribal cultural resources. Therefore, impacts would be *less than significant with mitigation incorporated*.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relation of which could cause significant environmental effects?	☐	☐	☑	☐
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☑	☐
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?	☐	☐	☑	☐
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?	☐	☐	☑	☐
e) Comply with Federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☑	☐

Environmental Setting

Utilities and service systems include wastewater treatment, storm water drainage facilities, water supply, landfill capacity, and solid waste disposal.

Wastewater: Wastewater will be collected and treated at the City's wastewater treatment facility, which is located at the intersection Paige Avenue and West St. The Project will tie into an existing 10" line in North E Street.

Solid Waste: Solid waste collection service is provided by the City of Tulare Solid Waste Division. Solid waste disposal will be provided by the Tulare County Solid Waste Department, which operates two landfills and six transfer stations within the county. Combined, these landfills receive approximately 300,000 tons of solid waste per day.

Water: Water for the proposed development will be provided by the City of Tulare. The City's primary source of water is groundwater. Existing water entitlements currently provide water to the proposed Project site. Implementation of the proposed Project will not require additional water entitlements. The Project will tie-in to the existing 12" line in North E Street.

Stormwater: Tulare is currently in agreement with Tulare Irrigation District (TID). Tulare pumps storm water into canals owned by TID. However, the drainage to TID facilities will be limited and no new sources will be established. During construction, storm water drainage will be directed into a temporary onsite basin located in the northern portion of the site feet. The project Site does not currently lie within one of the City's designated subbasins, but it lies directly east of the Gail subbasin and directly west of the Railroad Ditch. According to the City of Tulare's Storm Drainage Master Plan from 2009. The City has plans to expand the Gail Subbasin and replace the existing infrastructure with a larger new detention basin.

Electric Power: Southern California Edison will provide electricity for the Project. The Project will tie into existing facilities from the development directly west of the Site.

Regulatory Setting

CalRecycle: California Code of Regulations, Title 14, Natural Resources – Division 7 contains all current CalRecycle regulations regarding nonhazardous waste management in the state. These regulations include standards for the handling of solid waste, standards for the handling of compostable materials, design standards for disposal facilities, and disposal standards for specific types of waste.

Central Valley RWQCB: The Central Valley RWQCB requires a Stormwater Pollution Prevention Plan (SWPPP) for projects disturbing more than one acre of total land area. Because the project is greater than one acre, a SWPPP to manage stormwater generated during project construction will be required.

The Central Valley RWQCB regulates Wastewater Discharges to Land by establishing thresholds for discharged pollutants and implementing monitoring programs to evaluate program compliance. This program regulates approximately 1500 dischargers in the region.

The Central Valley RWQCB is also responsible for implementing the federal program, the National Pollutant Discharge Elimination System (NPDES). The NPDES Program is the federal permitting program that regulates discharges of pollutants to surface waters of the U.S. Under this program, a NPDES permit is required to discharge pollutants into Waters of the U.S. There are 350 permitted facilities within the Central Valley Region.

Discussion

a) Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relation of which could cause significant environmental effects?

Less Than Significant Impact: The Project will require the extension of existing utility services into the Project area, including water, wastewater, stormwater drainage, electric power, and telecommunications connections. However, these will consist of standard connections to existing infrastructure, which has adequate capacity to accommodate the Project without the need for major new or expanded off-site facilities.

- Water: The Project will be tied into existing 12-inch water lines in North E Street. The City's 2024 Water Master Plan confirms that the potable water distribution system, which includes 22 supply wells, storage facilities, and over 273 miles of water mains, has adequate capacity to support planned infill development within the City Limits. This Project is within the City Limits and is accounted for in the planned growth projections.
- Wastewater: The Project will connect to an existing 10-inch sewer line in Driftwood Avenue. According to the 2024 Wastewater Master Plan, the City's wastewater collection system, including gravity sewers, lift stations, and treatment facilities, has been evaluated for buildout conditions. Planned improvements are focused on long-term growth and ultimate buildout, and no capacity constraints are identified for infill projects such as this one. The Project's wastewater generation will be accommodated.
- Stormwater Drainage: Stormwater will be managed during construction via the temporary on-site basin. Upon full buildout, stormwater will be directed to the City's stormwater system. According to the 2024 Storm Drain Master Plan, the Project is located within the Gail Subbasin, which currently retains stormwater in the existing 8-acre-foot Gail Basin. The Master Plan identifies that the Gail Subbasin will ultimately be expanded and that a large new detention basin will replace the existing retention basin to accommodate future flows from this area. The Project is consistent with the City's growth projections for this basin and will not require off-site storm drainage improvements beyond standard connection to the planned expanded system.

- Electric Power: Electric power will be provided by Southern California Edison (SCE) through connections to existing facilities from the development directly west of the Site. No new substations or major upgrades are required.
- Telecommunications: Telecommunications facilities will connect to existing infrastructure in the area with no need for new off-site facilities.

Construction activities related to these utility extensions are not anticipated to cause significant environmental effects. The work will occur within existing rights-of-way and will be integrated into the overall Project construction plan to minimize environmental impacts. Best management practices (BMPs), such as erosion control measures and proper waste management, will be implemented during construction to reduce potential environmental impacts.

Based on the 2024 Water, Wastewater, and Storm Drain Master Plan and consistency with planned City Limit Buildout growth, the Project will rely on existing infrastructure with sufficient planned capacity and will not require major new or expanded facilities. Therefore, impacts would be *less than significant.*

b) Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant Impact: Water services for the Project will be provided by the City of Tulare upon development. The City's water supply consists of 23 wells extracting water from an underground aquifer. According to the City's 2020 Urban Water Management Plan (UWMP), the projected water supply is 6,255 million gallons (MG) per year in 2025, 6,421 MG per year in 2030, and 6,910 MG per year in 2035. As of 2020, water usage stands at 5,519 MG per year, averaging approximately 10,500 gallons per minute daily.

The City's Water System Master Plan indicates that single-family residential uses consume about 2,400 gallons per day per acre. Since the Project will be developed for single-family residential use on a 32.97-acre Site, it is expected to use approximately 79,128 gallons per day, equating to around 28.88 MG annually. This addition will have a minimal effect on the projected water usage, comprising only .46 percent of the water supply in 2025, .44 percent of the 2030 water supply, .42 percent of the 2035 water supply. These increases indicate a negligible impact on the City's overall water supply projections.

The Project Site has historically been used for agricultural production, specifically nut trees, which are recognized as high water use crops. Typical irrigation demand for nut orchards can range from 3 to 4 acre-feet (AF) per acre annually, equating to approximately 115 AF (3.5 AF per Acre over 32.97 Acres) per year. This is approximately 37.5 MG per year. By comparison, the proposed residential use at 28.88 MG per year will result in a reduction of groundwater use.

While the Project will result in reduced percolation to the groundwater basin compared to the existing vacant Site due to increased paved and impervious surfaces, all stormwater will be redirected to an onsite basin for groundwater recharge. Although the Project will use groundwater for domestic purposes, the amount is not considered significant and will not substantially lower the aquifer's groundwater table or interfere with its recharge processes.

The City employs water conservation staging ordinances and conjunctive use techniques—such as diverting excess surface water for groundwater recharge during wet years—to ensure water availability during dry periods. These strategies enhance the City's control over water supply and demand, significantly reducing vulnerability during dry and multiple dry years. Furthermore, the development of the Project would be consistent with the underlying General Plan land use designation of the Project Site, and as such, the Project has been accounted for in the current 2020 UWMP and its growth forecasts as well as its water demand and supply calculations.

Additionally, groundwater usage in Tulare is regulated under the Sustainable Groundwater Management Act. The City of Tulare is a participating member of the Mid-Kaweah Groundwater Sustainability Agency and is subject to the adopted Groundwater Sustainability Plan. The City's continued adherence to the GSP ensures that groundwater pumping remains within sustainable levels and that long-term aquifer health is maintained.

The Project will also pay its fair share for the installation of improvements and all development fees related to water service, supporting the City's ability to provide adequate water supplies without burdening existing infrastructure. The impact on water resources is *less than significant.*

c) Would the Project 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?

Less Than Significant Impact: Wastewater generated by the Project will be collected and treated at the City's wastewater treatment facility (WWTP) located at the intersection of Paige Ave. and West St. The Project will connect to the existing 10-inch sewer line in Driftwood Avenue, which flows into the City's overall wastewater collection system.

The City's 2024 Water, Wastewater, and Storm Drain Master Plan states that the existing average dry weather flow (ADWF) to the WWTP is approximately 11.5 MG per day, with a peak wet weather flow (PWWF) capacity of 30.7 mgd. Under City Limits buildout conditions, the ADWF is projected to increase to 15.0 mgd, with a PWWF of 33.5 mgd. Therefore, the facility has an available capacity of approximately 3.5 mgd between existing flows and City Limits buildout projections, which is sufficient to accommodate additional growth within the City limits such as this Project.

The Project, which would develop 32.97 acres of single-family residential land, is expected to generate wastewater at a rate of 1,200 gallons per day per acre, as identified in the 2024 Master Plan for single-family residential land uses. This equates to an estimated 39,564 gallons per day or approximately 0.04 MG per day of wastewater generation from the Project. This demand would represent a very small increase — less than 0.4 percent — of the current ADWF and would be easily accommodated within the remaining available treatment capacity.

Furthermore, the City's wastewater system and treatment plant are regulated by the State Water Resources Control Board and must comply with wastewater discharge requirements to ensure the protection of water quality and public health. The Project would be subject to all applicable connection fees and development impact fees, which contribute to ongoing improvements and maintenance of the City's wastewater infrastructure.

Given the available capacity at the City's Domestic WWTP and the minimal increase in flow from the Project, the City's wastewater provider would have adequate capacity to serve the Project's projected demand along with existing and planned commitments. Therefore, impacts would be *less than significant.*

d) Would the Project 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?

Less Than Significant Impact: Solid waste collection service will be provided by the City of Tulare Solid Waste Division, with disposal managed by the Tulare County Solid Waste Department. The addition of 171 residential units will generate additional solid waste; however, the existing landfill capacities are sufficient to handle the additional waste generated by the Project.

Tulare County's facilities collectively handle approximately 300,000 tons of solid waste per day. The waste generated by the Project is minimal relative to this capacity. Moreover, the Project will comply with all applicable solid waste reduction statutes and regulations, including implementing recycling programs and encouraging waste reduction practices among residents. The impact is *less than significant.*

e) Would the Project comply with Federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact: The Project will comply with all applicable federal, state, and local statutes and regulations related to solid waste management and reduction. Solid waste collection and disposal will be conducted in accordance with the policies of the City of Tulare and Tulare County Solid Waste Department. The Project will implement waste reduction and recycling programs to minimize solid waste generation, in compliance with state mandates

such as AB 939 and AB 341, which aim to reduce landfill waste and increase recycling efforts. Therefore, impacts would be *less than significant*.

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑
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?	☐	☐	☐	☑

Environmental Setting

Fire Hazard Severity Zones: Geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very High, High, or Moderate in State Responsibility Areas or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code, Sections 51175 through 51189. The City is not with a classified fire hazard severity zone.

Tulare Unit Strategic Fire Plan Key Goals and Objectives:

- Support the implementation and maintenance of defensible space inspections around structures.
- Analyze trends in fire cause and focus prevention and education efforts to modify behaviors and effect change to reduce ignitions within Tulare County
- Identify and evaluate wildland fire hazards and recognize assets at risk, collecting and analyzing data to determine fuel reduction project, and other projects.

- Assist landowners and local government in the evaluation of the need to retain and utilize features (e.g. roads, fire lines, water sources) developed during fire suppression efforts, taking into consideration those identified in previous planning efforts.

Tulare County Disaster Preparedness Guide (2011): The Tulare County Preparedness Guide provides guidelines regarding disaster preparedness and evacuation planning for Tulare County residents.

Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact: The Project is not located within a state responsibility area or on land classified as very high fire hazard severity zone. Moreover, the Project would not impair an adopted emergency response plan or emergency evacuation plan including the Tulare Unit Strategic Fire Plan and the Tulare County Disaster Preparedness Guide. Therefore, *no impact* would occur.

b) Due to slope, prevailing winds, and other factors, would the Project exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact: The Project is not located within a state responsibility area or on land classified as very high fire hazard severity zone. The Project is located on a flat area of land with insignificant risk of fire. The Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan identifies the risk of fire within the City of Tulare as having unlikely frequency, limited extent, limited magnitude, and low significance. The Project would not exacerbate wildfire risks and expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. Therefore, *no impact* would occur.

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: The Project is not located within a state responsibility area or on land classified as very high fire hazard severity zone. The construction of the Project involves adding new local residential streets, and expanding existing utilities in the area to the 171 lots on the Project Site. Utilities such as emergency water sources and power lines would be included as part of the proposed development, however all improvements would be subject to City standards and fire chief approval. Therefore, *no impact* would occur.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire instability, or drainage changes?

No Impact: The Project is not located within a state responsibility area or on land classified as very high fire hazard severity zone. The Project Site is located on land with relatively flat topography and is not susceptible to flooding or landslides from post-fire instability from being downslope or downstream. Therefore, *no impact* would occur.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Does the Project have the potential substantially to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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?	☐	☑	☐	☐
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)?	☐	☐	☑	☐
c) Does the Project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☑	☐

Discussion

a) **Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate a plant or animal community, 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 Impact with Mitigation Incorporated: The above Initial Study found the Project could potentially significantly impact Biological Resources, Cultural Resources, Geology and Soils (Paleontological Resources), Hydrology/Water Quality, Noise, and Tribal Cultural

Resources. However, with the implementation of previously identified Mitigation Measures BIO-1, BIO-2, BIO-3, CUL-1, CUL-2, GEO-1, HYD-1, HYD-2, HYD-3, Noise-1, Noise-2, Noise-3, Noise-4, and Noise-5 each respective potentially significant impacts would be reduced to a less than significant level. Accordingly, the Project would not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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. No additional mitigation measures are required as impacts would be *less than significant with previously identified mitigation measures 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 Impact: State CEQA Guidelines Section 15064(h) states that a lead agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The proposed Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., an increase in population could lead to an increased need for housing, an increase in traffic, air pollutants, etc.). Therefore, impacts would be *less than significant*.

c) Does the Project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact: The analyses of environmental issues contained in the above Initial Study indicate that the Project is not expected to have a substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the Project design to reduce all potentially significant impacts to less than significant, which results in a *less than significant* impact on this checklist item.

3.6 Mitigation Monitoring and Reporting Program

As required by Public Resources Code Section 21081.6, subd. (a)(1), a Mitigation Monitoring and Reporting Program (MMRP) has been prepared for the E Street Subdivision Project to monitor the implementation of the mitigation measures that have been adopted for the Project. This MMRP has been created based upon the findings of the Initial Study/Mitigated Negative Declaration.

The first column of the table identifies the mitigation measure. The second column names the party responsible for carrying out the required action. The third column identifies the timing of initiating the mitigation measure. The fourth column names the party ensuring that the mitigation measure is implemented. The last column will be used by the City of Tulare to ensure that the individual mitigation measures have been monitored.

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure BIO-1 (Construction Timing). If feasible, future construction activities shall take place entirely outside of the avian nesting season, defined as February 1 to August 31.	Project Applicant	Pre-Construction	City of Tulare	
Mitigation Measure BIO-2 (Preconstruction Surveys). If construction must occur between February 1 and August 31, a qualified biologist shall conduct surveys for active bird nests within 7 days prior to the start of work during this period. The survey area shall encompass the Project Site and accessible surrounding lands within a quarter mile for nesting Swainson's hawks, 500 feet for other nesting raptors, and 250 feet for nesting birds.	Project Applicant	Pre-Construction	City of Tulare	
Mitigation Measure BIO-3 (Avoidance of Active Nests). Should any active nests be discovered in or near proposed construction zones, the biologist shall identify a suitable construction-free buffer around the nest. This buffer shall be identified on the ground with flagging or fencing and shall be maintained until the biologist has determined that the young have fledged and are capable of foraging independently.	Project Applicant	Ongoing During Construction	City of Tulare	
Mitigation Measure CUL-1: If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (NPS 1983) shall be contacted immediately to evaluate the find. If the discovery proves to be important resource under CEQA, additional work such as data recovery excavation and Native American consultation shall be completed to mitigate any adverse effects.	Project Applicant	Ongoing During Construction	City of Tulare	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure CUL-2: If human remains are uncovered during construction, the Tulare County Coroner shall be notified to investigate the remains and arrange proper treatment and disposition. If the remains are identified on the basis of archaeological context, age, cultural associations, or biological traits to be those of a Native American, California Health and Safety Code 7050.5 and PRC 5097.98 require that the coroner notify the Native American Heritage Commission within 24 hours of discovery. The Native American Heritage Commission will then identify the Most Likely Descendent who will be afforded an opportunity to make recommendations regarding the treatment and disposition of the remains. The Most Likely Descendent shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.	Project Applicant	Ongoing During Construction	City of Tulare	
Mitigation Measure GEO-1: If a suspected unique paleontological resource were to be discovered during construction of the Project, the following protocol shall be implemented: • The City of Tulare shall be notified of the discovery. Work shall cease around the find until a qualified paleontologist meeting the Society of Vertebrate Paleontology standards has evaluated the find in accordance with federal, state, and local guidelines. The applicant shall choose the qualified paleontologist subject to the approval of the City. If the find is determined to be a unique resource, such measures may include avoidance, preservation in place, data recovery and associated documentation, or other appropriate measures. Construction activity may continue unimpeded in other portions of the Project Site. The City shall determine the appropriate and feasible measure(s) that will be necessary to mitigate impacts, in consideration of the measure(s) recommended by the paleontologist. Construction in the affected area shall re-commence with the approval of the City.	Project Applicant	Ongoing During Construction	City of Tulare	
Mitigation Measure HRA-1: Implement Tier 4 Engine Controls for all off-road, diesel-fueled equipment during construction. the use of Tier 4 engine controls is consistent with U.S. EPA, CARB, and SJVAPCD goals for implementing mitigation measures that directly reduce DPM emissions. Tier 4 generally requires the addition of emissions control equipment to new engines, such as a Diesel Particulate Filter (DPF).	Project Applicant	Ongoing During Construction	City of Tulare	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
Mitigation Measure HYD-1: Prior to the issuance of any construction/grading permit and/or the commencement of any clearing, grading, or excavation, the Applicant shall submit a Notice of Intent (NOI) for discharge from the Project Site to the California State Water Resources Control Board's Storm Water Permit Unit and submit a copy of this NOI to the City. The City shall review the noticing documentation prior to approval of the grading permit and City monitoring staff shall inspect the Project Site during construction for compliance.	Project Applicant	Pre-Construction	City of Tulare	
Mitigation Measure HYD-2: The Applicant shall require the building contractor to prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to the City 45 days prior to the start of work for approval. The contractor is responsible for understanding the State General Permit and instituting the SWPPP during construction. A SWPPP for site construction shall be developed prior to the initiation of grading and implemented for all construction activity on the Project Site in excess of one (1) acre, or where the area of disturbance is less than one acre but is part of the Project's plan of development that in total disturbs one or more acres. The SWPPP shall identify potential pollutant sources that may affect the quality of discharges to stormwater and shall include specific Best Management Practices (BMPs) to control the discharge of material from the site. The following BMPs methods shall include, but would not be limited to: • Dust control measures to ensure success of all on-site activities to control fugitive dust; • A routine monitoring plan to ensure success of all on-site erosion and sedimentation control measures; • Provisional detention basins, straw bales, erosion control blankets, mulching, silt fencing, sand bagging, and soil stabilizers shall be used; • Soil stockpiles and graded slopes shal be covered after two weeks of inactivity and 24 hours prior to and during extreme weather conditions; and, • BMPs shal be strictly followed to prevent spills and discharges of pollutants on-site, such as material storage, trash disposal, construction entrances, etc.	Project Applicant	Pre-Construction	City of Tulare	
Mitigation Measure HYD-3: A Development Maintenance Manual for the Project shall include comprehensive procedures for maintenance and operations of any stormwater facilities to ensure long-term operation and maintenance of post-construction stormwater controls. The maintenance manual shall require that stormwater BMP devices be inspected, cleaned, and maintained in accordance with the manufacturer's maintenance conditions. The manual shall require that devices be cleaned prior to the	Project Applicant	Pre-Construction	City of Tulare	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
onset of the rainy season (i.e., mid-October) and immediately after the end of the rainy season (i.e., mid-May). The manual shall also require that all devices be checked after major storm events. The Development Maintenance Manual shall include the following: • Runoff shall be directed away from trash and loading dock areas; • Bins shall be lined or otherwise constructed to reduce leaking of liquid wastes; • Trash and loading dock areas shall be screened or walled to minimize offsite transport of trash; and, • Impervious berms, trench catch basin, drop inlets, or overflow containment structures nearby docks and trash areas shall be installed to minimize the potential for leaks, spills or wash down water to enter the drainage system.				
Mitigation Measure Noise-1: Construct a sound wall or earthen berm and sound wall combination with a minimum height of six (6) feet above project lot grade is constructed along the extent of the project site N. E Street frontage. Suitable construction materials include concrete blocks, masonry, or stucco on both sides of a wood or steel stud wall.	Project Applicant	Ongoing During Construction	City of Tulare	
Mitigation Measure Noise-2: Construct a sound wall or earthen berm and sound wall combination with a minimum height of twelve and a half (12.5) feet above project lot grade is constructed along the entire Union Pacific Railroad frontage of the Project Site. The sound wall should extend from Lots 17, 33, 34 through (and including) Lot 53 and shall also extend north across the full width of Zumwalt Avenue, including the cul-de-sac, to ensure complete coverage of all residential lots adjacent to the UPRR. Suitable construction materials include concrete blocks, masonry, or stucco on both sides of a wood or steel stud wall. The 12.5-foot sound wall would reduce exterior noise levels within individual backyards to below 60 dB Ldn.	Project Applicant	Ongoing During Construction	City of Tulare	
Mitigation Measure Noise-3: To ensure compliance with the City of Tulare interior noise standard of 45 dB Ldn for second-story spaces in homes closest to the Union Pacific Railroad (specifically Lots 17 and Lots 33 through 53), one of the following measures shall be implemented: 1. All north-, south-, and east-facing facades of second-story walls shall be constructed with windows rated at a minimum Sound Transmission Class (STC) 35; or 2. Homes on these lots shall be limited to single-story construction only; or 3. A detailed interior noise analysis shall be conducted once construction plans are finalized, and if interior noise levels are found to exceed 45 dB Ldn, higher-rated STC windows or other necessary mitigation	Project Applicant	Pre-Construction	City of Tulare	

Mitigation Measure	Responsible Party for Implementation	Implementation Timing	Responsible Party for Monitoring	Verification
measures shall be incorporated into the project design to ensure compliance.				

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Project Title: Santa Fe West Subdivision

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Appendix A

Air Quality, Greenhouse Gas, and Energy Assessment

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Section 1 – Introduction

1.1 Project Description

This document provides an air quality and greenhouse gas assessment for the Santa Fe West Subdivision (Project) in Tulare, CA. The Project proposes 174 units of Low-Density Residential development on 32.97 acres near the City's northwestern boundary. A Vicinity Map and Site Plan are provided in Attachments A and B, respectively.

1.2 Project Setting

The proposed Project is located on approximately 32.97 acres in the northwestern portion of the City of Tulare, California. The site is bound by North J Street and the San Joaquin Valley Railroad (SJVR) to the east, North E Street to the west, and unnamed agricultural dirt roads to the north and south. The site will be accessed through the existing North E Street and through the extension of local streets such as Russel Drive from the surrounding residential neighborhoods to the west of the site. There are agricultural uses to the north of the site, residential to the west, service commercial to the east, and industrial land uses to the south of the Project site. The site is located on two parcels, APN 164-100-008 and 164-100-009, which currently is comprised of agricultural orchards and private dirt access roads.

The site is located on the perimeter of the city of Tulare, just inside of the city limits. The site is currently used for agricultural uses; however, the site has been designated by the City's General Plan for Low-Density Residential (3.1-7 D.U./acre). The proposed Project site is in a developing area of the City of Tulare, with single-family residential homes located to the west, agricultural farmland to the north, service commercial to the east, and light industrial land uses to the south of the site. However, to the east of the site is land that has been designated for heavy industrial land uses by the City of Tulare General Plan. The closest school site, Los Tules Middle School, is approximately 80 feet from the southwestern corner of the Project site.

1.3 Summary of CEQA Requirements

CEQA is required by Section 21000 et seq. of the California Public Resources Code and Title 14 of the California Code of Regulations, Section 15000 *et seq.* Section 15002(a) of the CEQA Guidelines describes the basic purposes of CEQA as follows.

(1) Inform governmental decision-makers and the public about the potential significant environmental effects of proposed activities.
(2) Identify the ways that environmental damage can be avoided or significantly reduced.
(3) Prevent significant, avoidable damage to the environment by requiring changes in Projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.

(4) Disclose to the public the reasons why a governmental agency approved the Project in the manner the agency chose if significant environmental effects are involved.

The City of Tulare will act as Lead Agency for this Project pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

Section 2 – Air Quality

2.1 Air Quality Setting

San Joaquin Valley Air Basin

The Project lies in western Tulare County, within the San Joaquin Valley Air Basin. The San Joaquin Valley Air Basin is bordered by the Sierra Nevada Mountains to the east, Coastal Ranges to the west, and the Tehachapi Mountains to the south. These mountain ranges restrict air movement and prevent the dispersal of pollution in the Valley below.

The San Joaquin Valley Air Pollution Control District is comprised of the San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, and Tulare Counties and the Valley portion of Kern County and has jurisdiction over most air quality matters in the San Joaquin Valley Air Basin (SJVAB). Due to topographic features and the prevalence of agriculture in the region, the San Joaquin Valley Air Basin (SJVAPCD) has one of the most severe air pollution problems in the State of California and the nation. Air pollution is hazardous to health, reduces visibility, degrades or soils materials, and can damage native vegetation. State and national ambient air quality standards were created to protect health and welfare, and to minimize other impacts. The ambient air quality standards are outlined in the Regulatory Setting section.

The SJVAPCD has developed a Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) to act as an advisory document for addressing air quality in environmental documents. The GAMAQI was used as a guide for addressing air quality impacts in this report.

Air Pollutants of Concern

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards for outdoor concentrations. The federal and state standards have been set at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons such as children, pregnant women, and the elderly, from illness or discomfort. Criteria air pollutants include ozone (O3), nitrogen dioxide (NO2), carbon monoxide (CO), sulfur dioxide (SO2), particulate matter 2.5 microns or less in diameter (PM2.5), particulate matter ten microns or less in diameter (PM10), and lead (Pb). Note that reactive organic gases (ROGs), which are also known as reactive organic compounds (ROCs) or volatile organic compounds (VOCs), and nitrogen oxide (NOx) are not classified as criteria pollutants. However, ROGs and NOx are widely emitted from land development projects and participate in photochemical

reactions in the atmosphere to form O3; therefore, NOx and ROGs are relevant to the proposed Project and are of concern in the air basin and are listed below along with the criteria pollutants. As shown in Table 1, the SJVAB is in nonattainment for several pollutant standards.

Ozone: Ozone is not emitted directly into the environment but is generated from complex chemical reactions between reactive organic gases (ROG), or non-methane hydrocarbons, and oxides of nitrogen (NOX) that occur in the presence of sunlight. ROG and NOX generators in Tulare County include motor vehicles, recreational boats, other transportation sources, and industrial processes.

PM10: PM10, or particulate matter, is a complex mixture of primary or directly emitted particles, and secondary particles or aerosol droplets formed in the atmosphere by precursor chemicals.

Carbon Monoxide: Carbon Monoxide (CO) is a colorless, odorless, and poisonous gas produced by incomplete burning of carbon in fuels. When CO enters the bloodstream, it reduces the delivery of oxygen to the body's organs and tissues. Health threats are most serious for those who suffer from cardiovascular disease, particularly those with angina or peripheral vascular disease. Exposure to elevated CO levels can cause impairment of visual perception, manual dexterity, learning ability and performance of complex tasks. The primary source of carbon monoxide is automobile use.

Nitrogen Dioxide: Nitrogen Dioxide (NO2) is a brownish, highly reactive gas that is present in all urban atmospheres. NO2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Nitrogen oxides are an important precursor both to ozone (O3) and acid rain and may affect both terrestrial and aquatic ecosystems.

The major mechanism for the formation of NO2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO). NO2 plays a key role, together with VOCs, in the atmospheric reactions that produce O3. NO2 forms when fuel is burned at hot temperatures. The two major emission sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

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

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone – One hour	No Federal Standard[f]	Nonattainment/Severe
Ozone – Eight hour	Nonattainment/Extreme[e]	Nonattainment
PM 10	Attainment[c]	Nonattainment
PM 2.5	Nonattainment[d]	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead (Particulate)	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

[a] See 40 CFR Part 81
[b] See CCR Title 17 Sections 60200-60210
[c] On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM10 National Ambient Air Quality Standard (NAAQS) and approved the PM10 Maintenance Plan.
[d] The Valley is designated nonattainment for the 1997 PM2.5 NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5 NAAQS on November 13, 2009 (effective December 14, 2009).
[e] Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).
[f] Effective June 15, 2005, the U.S. Environmental Protection Agency (EPA) revoked the federal 1-hour ozone standard, including associated designations and classifications. EPA had previously classified the SJVAB as extreme nonattainment for this standard. EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.

Table 1. San Joaquin Valley Attainment Status
Source: SJVAPCD

2.2 Ambient Air Quality

Ambient air quality in Tulare can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. Existing levels of ambient air quality and historical trends and projections in the vicinity of Tulare are documented by measurements made by the SJVAPCD, which also maintains air quality monitoring stations which process ambient air quality measurements.

The purpose of the monitoring station is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS). Ozone and particulate matter (PM10 and PM2.5) are pollutants of particular concern in the SJVAB. The monitoring station located closest to the proposed Project site and most representative of air quality near the proposed Project site is the Visalia – W. Ashland Ave station, located at 2005 West Ashland Avenue, Suite G, which is approximately 5.83 miles northeast of the Project site. There are no air monitoring stations in Tulare, so this nearest location was used for ambient air quality measurements. Ambient emission concentrations vary due to localized variations in emissions sources and climate and should be considered "generally" representative of ambient concentrations near the Project site. Air monitoring data was retrieved from both the W. Ashland Avenue location and the N. Church Street stations to provide data from the years 2021 to 2023. Both air monitoring stations in Visalia monitor ozone and particulate matter (PM 2.5 & PM 10), but the W. Ashland Avenue location also monitors nitrogen dioxide and PM 2.5 speciation in addition to the other pollutants previously mentioned. Refer to Table 2, Visalia – W. Ashland Ave Air Monitoring Station Data for more information.

*Data from Tulare air monitoring stations not available, San Joaquin Air Basin measurements used.

Pollutant	Averaging Time	Item	Standard	2021	2022	2023
Ozone	1 Hour	Max 1 Hour (ppm)	0.09 ppm	0.119	0.114	0.100
		Days > State Standard (0.09 ppm)	--	14	8	3
	8 Hour	Max 8 Hour (ppm)	0.070 ppm	0.099	0.099	0.087
		Days > State Standard (0.070 ppm)	--	52	64	30
		Days > National Standard (0.070 ppm)	--	51	62	27
		Days > National Standard (0.075 ppm)	--	35	26	8
PM 2.5	24-Hour	Max 24 Hour Average Concentration (μg/m^3)	--	129.2	48.3	42.9
		Days > National 24-Hour Standard	--	46.6	18.5	6.1
	Annual	Annual average Concentration (μg/m^3)	12 μg/m^3	16.6	16.1	13.5
PM 10	24-Hour	Max 24 Hour Average Concentration (μg/m^3)	50 μg/m^3	302.1	125.2	107.5
		Days > State 24-Hour Standard	--	151.7*	171.2*	108.5
		Days > National 24-Hour Standard	--	4.7	3.8*	0
	Annual	Annual Average Concentration (μg/m^3)	20 μg/m^3	52.8	54.9	39.1

Table 2. W. Ashland Avenue & N. Church Street Air Monitoring Stations Data

Source: California Air Resources Board Air Quality Statistics – iADAM tool

California and National Air Quality Standards has been included in Table 3 below, California and National Ambient Air Quality Standards.

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration[3]	Primary	Secondary
Ozone (03)	1 Hour	0.09 ppm (180 μg/m^3)	--	Same as Primary Standard
	8 Hour	0.070 ppm (137 μg/m^3)	0.075 ppm (147 μg/m^3)	
	24 Hour	50 μg/m	150 μg/m^3	

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration[3]	Primary	Secondary
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m3	--	Same as Primary Standard
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	--	35 µg/m³	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	--
	8 Hour	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	--
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)	--	--
Nitrogen Dioxide (NO_2) [8]	1 Hour	0.18 ppm (339 µg/m³)	100 ppb (188 µg/m³)	--
	Arithmetic Mean	0.030 ppm (57 µg/m³)	53 ppb (100 µg/m³)	Same as Primary Standard
Sulfur Dioxide	1 Hour	0.25 ppm (655 µg/m³)	75 ppb (196 µg/m³)	--
	3 Hour	--	--	0.5 ppm (1300 µg/m³)
	24 Hour	0.04 ppm (105 µg/m³)	0.14 ppm (for certain areas)	--
	Annual Arithmetic Mean	--	0.030 ppm (for certain areas)	--
Lead[10,11]	30 Day Average	1.5 µg/m³	--	--
	Calendar Quarter	--	1.5 µg/m3 (for certain areas)	Same as Primary Standard
	Rolling 3-Month Average	--	0.15 µg/m³	
Visibility Reducing Particles[12]	8 Hour	See Footnote 1	No National Standards	
Sulfates	24 Hour	25 µg/m³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)		
Vinyl Chloride[10]	24 Hour	0.01 ppm (26 µg/m³)		

Table 3. California and National Ambient Air Quality Standards

Source: SJVAPCD

Notes: 1 In 1989, the California Air Resources Board (CARB) converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively. Key: µg/m3 = micrograms per cubic meter; mg/m3 = milligrams per cubic meter; ppm = parts per million Source: CARB 2016c

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes, such as petroleum refining and chrome-plating operations; commercial operations, such as gasoline stations and dry cleaners; and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute affects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

To date, CARB has designated 244 compounds as TACs. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to a relatively few compounds. CARB identified diesel particulate matter (DPM) as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particulates and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, lightheadedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiovascular diseases. Residential areas are considered sensitive receptors to air pollutions because residents

(including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Children are considered more susceptible to health effects of air pollution due to their immature immune systems and developing organs. As such, schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation.

2.3 Existing Project Site

The existing Project site is undeveloped and consists of 32.97 acres of orchards within the City of Tulare, CA. There are no land uses at this site associated with air pollutant and/or odor emissions. As a result, the existing Project site is not a significant source of air pollutants and odors.

2.4 Regulatory Framework

Regional Attainment Status

The state and federal standards for the criteria pollutants are presented in Section 8.4 of The San Joaquin Valley Unified Air Pollution Control District's 2015 "Guidance for Assessing and Mitigating Air Quality Impacts". These standards are designed to protect public health and welfare. The "primary" standards have been established to protect public health. The "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soils, water, visibility, materials, vegetation, and other aspects of general welfare. The U.S. EPA revoked the national 1-hour ozone standard on June 15, 2005, and the annual PM_{10} standard on September 21, 2006, when a new $PM_{2.5}$ 24-hour standard was established.

The California Environmental Quality Act (CEQA) requires lead agencies to determine if each Project of a certain threshold has an impact on the air quality of the area. The Air Quality standards and Greenhouse Gas guidance measures are used to establish levels of air quality impact of a Project. The following regulatory background represents global, federal, state, and local standards and guidance that have been reviewed in this study.

Federal Clean Air Act: The 1977 Federal Clean Air Act (CAA) authorized the establishment of the National Ambient Air Quality Standards (NAAQS) and set deadlines for their attainment. The Clean Air Act identifies specific emission reduction goals, requires both a demonstration of reasonable further progress and an attainment demonstration, and incorporates more stringent sanctions for failure to meet interim milestones. The U.S. EPA is the federal agency charged with administering the Act and other air quality-related legislation. EPA's principal functions include setting NAAQS; establishing minimum national emission limits for major

sources of pollution; and promulgating regulations. Under CAA, the NCCAB is identified as an attainment area for all pollutants.

California Clean Air Act: California Air Resources Board coordinates and oversees both state and federal air pollution control programs in California. As part of this responsibility, the California Air Resources Board monitors existing air quality, establishes California Ambient Air Quality Standards, and limits allowable emissions from vehicular sources. Regulatory authority within established air basins is provided by air pollution control and management districts, which control stationary-source and most categories of area-source emissions and develop regional air quality plans. The Project is located within the jurisdiction of the San Joaquin Valley Air Pollution Control District.

San Joaquin Valley Air Pollution Control District (SJVAPCD): The SJVAPCD is responsible for enforcing air quality standards in the Project area. The following SJVAPCD rules and regulations may apply to the proposed Project:

- **Rule 2010:** Permits Required. The purpose of this rule is to require any person constructing, altering, replacing, or operating any source operation which emits, may emit, or may reduce emissions to obtain an Authority to Construct or a Permit to Operate. This rule also explains the posting requirements for a Permit to Operate and the illegality of a person willfully altering, defacing, forging, counterfeiting, or falsifying any Permit to Operate.
- **Rule 3135:** Dust Control Plan Fee. All Projects which include construction, demolition, excavation, extraction, and/or other earth moving activities as defined by Regulation VIII (Described below) are required to submit a Dust Control Plan and required fees to mitigate impacts related to dust.
- **Rule 4002:** National Emission Standards for Hazardous Air Pollutants. This rule incorporates the National Emission Standards for Hazardous Air Pollutants from Part 61, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR) and the National Emission Standards for Hazardous Air Pollutants for Source Categories from Part 63, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR).
- **Rule 4101:** Visible Emissions. District Rule 4101 prohibits visible emissions of air contaminants that are dark in color and/or have the potential to obstruct visibility.
- **Rule 4102:** Nuisance. The purpose of this rule is to protect the health and safety of the public.
- **Rule 4601:** Architectural Coatings. The purpose of this rule is to limit VOC emissions from architectural coatings. This rule specifies architectural coatings storage, cleanup, and labeling requirements.
- **Rule 4641:** Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.

- **Rule 4662:** District Rule 4662 was developed to help reduce emissions of volatile organic compounds (VOC) and hazardous air pollutants produced from degreasing operations, in which an enclosure or device is used for removing dirt, oil, grease and other contaminants.
- **Rule 4663:** District Rule 4663 was developed to limit the emissions of volatile organic compounds (VOCs) from organic solvent cleaning and from the storage and disposal of solvents and waste solvent materials.
- **Rule 9510:** Indirect Source Review (ISR). This rule reduces the impact PM10 and NOX emissions from growth on the SJVB. This rule places application and emission reduction requirements on applicable development Projects in order to reduce emissions through onsite mitigation, offsite SJVAPCD administered Projects, or a combination of the two. This Project will submit an Air Impact Assessment (AIA) application in accordance with Rule 9510's requirements.
- **Regulation VIII:** Fugitive PM10 Prohibitions. Regulation VIII is composed of eight rules which together aim to limit PM10 emissions by reducing fugitive dust. These rules contain required management practices to limit PM10 emissions during construction, demolition, excavation, extraction, and/or other earth moving activities.

Tulare County Regional Bicycle Transportation Plan: Tulare County Association of Governments' (TCAG) Tulare County Regional Bicycle Transportation Plan from 2010 has influence on internal and access streets to the Project site. In this Bike Plan there is a proposed Class II bike lane that connects the residential neighborhood to the north, to the Project site along South E Street, and ultimately to a separate Class I bike path along the Project's southern edge on West Paige Avenue. The following objectives and corresponding policies relating to this project are as follows:

- **Objective A:** Implement the Bicycle Transportation Plan, which identifies existing and future needs, and provides specific recommendations for facilities and programs over the next four (4) years and beyond

  A.2. Establish and maintain uniform standards so major developments are required to make bicycle improvements as development happens.

  A.6. Encourage Plan adoption by all local jurisdictions within Tulare County.
- **Objective B:** Complete a network of bikeways that is feasible, fundable over the life of the Plan, and that serve bicyclists' needs, especially for travel to employment centers, schools, commercial districts, transit terminals and recreational destinations.

  B.1. Encourage jurisdictions to develop a bicycle network that connects neighborhoods, cities and communities.

  B.4. Coordinate with local jurisdictions and developers in Tulare County to ensure appropriate opportunities for bicycle connections are planned, constructed, and maintained.
- **Objective E:** Increase Bicycle Ridership in Tulare County

  E.2. Include bicycle facilities as an integral part of future developments across Tulare County and connect to other existing and proposed bicycle facilities.

E.4. Provide convenient bicycle access and bicycle parking at schools, parks, neighborhoods, shopping centers, government buildings, and local businesses.

2.5 Thresholds and Methodology

Thresholds of Significance

The impact analysis provided in Chapter 2.6 is based on the application of the following California Environmental Quality Act (CEQA) Guidelines Appendix G, which indicates that a project would have a significant impact on air quality if it would:

1. *Conflict with or obstruct implementation of any applicable air quality plan.*
2. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.*
3. *Expose sensitive receptors to substantial pollutant concentrations.*
4. *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.*

The significance criteria established by the applicable air quality management or air pollution control district (SJVAPCD) may be relied upon to make the above determinations. According to the SJVAPCD, an air quality impact is considered significant if the proposed Project would violate any ambient air quality thresholds, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SJVAPCD has established thresholds of significance for air quality for construction and operational activities of land use development projects, which is shown in Table 4. – SJVAPCD Thresholds of Significance for Criteria Pollutants.

Pollutant/Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM10	15	15	15
PM2.5	15	15	15

Table 4. Thresholds of Significance for Criteria Pollutants
Source: SJVAPCD

SJVAPCD has also established the following thresholds of significance for risk exposure to toxic air contaminants to nearby sensitive receptors to the Project site, shown below in Table 5.

Carcinogens	Maximally Exposed Individual risk equals or exceeds 20 in one million
Non-Carcinogens	**Acute**: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual
	Chronic: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual

Table 5. Thresholds of Significance for Toxic Air Contaminants (TAC's)
Source: SJVAPCD

CO Hotspot Analysis

In addition to the daily thresholds listed above, the proposed Project area would also be subject to the ambient air quality standards, through an analysis of localized CO impacts. The California 1-hour and 8-hour CO standards are:

- 1-hour = 20 parts per million (ppm)
- 8-hour = 9 parts per million (ppm)

The significance of localized impacts depends on whether ambient CO levels in the vicinity of the Project site are above state and federal standards for carbon monoxide. Carbon monoxide concentrations in the San Joaquin Air Basin currently meets the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO).

Methodology

Air pollution emissions can be estimated by using emission factors and examining the level of activity occurring. Emission factors are the emission rate of a pollutant given the activity over time; for example, grams of NOx per horsepower hour. The ARB has published emission factors for on-road equipment and vehicles in the OFFROAD emission model. An air emissions model (or calculator) combines the emission factors and the various levels of activity and outputs the emissions for the various pieces of equipment.

The California Emissions Estimator (CalEEMod), Version 2022.1.1, is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutants and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use Projects. The model quantifies direct emissions from construction and

operations, including vehicle use, as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The model incorporates Pavley standards and Low Carbon Fuel standards into the mobile source emission factors. Further, the model identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user. The CalEEMod model was run based off of the following land use assumption:

- Single Family Housing: 174 dwelling units (D.U.s), 32.97 Acres

CalEEMod default values were used to estimate construction trips, trip lengths, emission factors for construction equipment, trips and VMT, architectural coatings, area sources, water and wastewater, and solid waste generation. In order to account for recent changes to new residential building standards (2022 update to Title 24, Part 6 of the California Code of Regulations), no natural gas usage is expected for the proposed Project. This update mandates that new homes constructed from 2023 onward must be equipped with electric systems capable of supporting all-electric appliances. Therefore, the Project will not be connected to natural gas, and the provided default energy use from natural gas was converted to an equivalent kilowatt-hours and added to the predicted electricity use provided in the model to account for the energy that would have been provided by natural gas. Electricity to the Project Site will be provided by Southern California Edison. Other non-defaults included locational context, Project-specific construction equipment and schedule, the exclusion of gas, propane, and electric fireplaces, and wood stoves, zero emission landscaping equipment (Assembly Bill 1346), and the use of the SJVAPCD district-accepted operational fleet mix for residential projects.

The full CalEEMod Report for the Santa Fe West Subdivision can be found in Attachment C.

2.6 Project Impacts

a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant. The SJVAPCD drafted a series of State Implementation Plans (SIP) for the criteria pollutants that are of concern for the San Joaquin Valley Air Basin. The integration of multiple SIPs for each criteria pollutant collectively form the air quality plan for the San Joaquin Valley Air Basin. The most recent SIP is the "2024 Plan for the 2012 PM 2.5 Standard", which focuses on meeting the annual PM 2.5 standard of 12 micrograms/cubic meters originally set in 2012. This SIP includes measures to reduce fine particulate matter emissions and improve air quality by the year 2030. The SJVAPCD has established thresholds in the adopted SIPs and other air quality plans prepared by the Air District. These thresholds are depicted in Tables 6 and 7 for construction and operation. Criteria for determining consistency with the established standards are whether or not the Project's estimated emissions exceed those thresholds established by the Air District. As long as the

Project construction and operational emissions do not exceed the thresholds, the Project will not result in new air violations, delay the timely attainment of air quality standards, or result in increased severity of an existing air quality violation.

Short-Term Emissions

Project construction would generate pollutant emissions from the following construction activities: site preparation, grading, building construction, application of architectural coatings, and paving. The short-term emissions from these activities were calculated using CalEEMod Version 2022.1.1. The full CalEEMod Report can be found in Attachment C, respectively. As shown in Table 6 below, Project construction related emissions do not exceed the thresholds for criteria pollutants established by the SJVAPCD.

Construction Phase Modeling Parameters

Construction schedule assumptions and lot sizes were based on the approved site plan for the Project and the standards set forth in the City of Tulare Municipal Code and General Plan. Default values provided in CalEEMod were used where detailed Project information was not available. The construction phases for the Project included site preparation, grading, building construction, paving and architectural coating. Total construction is expected to occur over the span of 3 years (2025-2028). Project-specific values were used for off-road equipment estimations and construction schedule. Default values were used for construction vehicle trips/VMT, VOC content of architectural coatings, and electricity emission factors.

Construction Emissions

Implementation of the Project would generate air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, architectural coatings, and asphalt pavement application. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM10 and PM2.5 emissions. The Project would implement various dust control strategies and would be required to comply with SJVAPCD Regulation VIII to control dust emissions generated during the grading activities. Proposed construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites and unpaved roads two times per day depending on weather conditions. Internal combustion engines used by construction equipment, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of ROGs, NOx, CO, PM10, and PM2.5. However, as a part of Mitigation Measure HRA-1, all off-road equipment will utilize Tier 4 Final Engine Controls to reduce diesel particulate matter (DPM) during the construction phase to ensure that associated health risks of DPM remain low.

The application of architectural coatings, such as exterior application/interior paint and other finishes, and of asphalt pavement would also produce ROG emissions. Pursuant to Regulation VIII, Rule 8021, Section 6.3, the Project would be required to develop, prepare,

submit, obtain approval of, and implement a dust control plan, which would reduce fugitive dust impacts to less than significant for Project construction.

Table 6 presents the estimated emissions generated during construction of the Project. The full CalEEMod estimates can be found in Attachment C of this report.

	CO (tpy)	ROG (tpy)	SOx (tpy)*	NOx (tpy)	PM10 (tpy)	PM2.5 (tpy)
Emissions Generated from Project Construction	**2.51**	**1.09**	**<0.005**	**0.46**	**0.01**	**0.01**
SJVAPCD Thresholds of Significance	**100**	**10**	**27**	**10**	**15**	**15**
*Threshold established by SJVAPCD for SOx, however emissions are reported as SO2 by CalEEMod.						

Table 6. Projected Construction Emissions Compared to SJVAPCD Thresholds of Significance
Sources: CalEEMod Outputs; SJVAPCD

Long-Term Emissions

Implementation of the proposed Project would result in long-term emissions associated with mobile, energy, and area sources. Operational emissions from these factors were calculated using CalEEMod. The full CalEEMod Report can be found in Attachment C of this report.

Operational Phase Modeling Parameters

CalEEMod default vehicle trips were used to model residential vehicle trip rates and lengths during the operational phase. For area sources of emissions under the operational phase, default values were used for all inputs except for the "Hearths", "Energy", "Fleet Mix" sections. Under the "Hearths" section, all values for woodstoves, gas powered fireplaces, electric fireplaces, propane-powered fireplaces, wood-powered fireplaces were set to zero. The proposed Project will not be connected to any natural gas source. As a result, electricity consumption was adjusted to account for the energy that would have been provided by natural gas by converting the natural gas energy use to kilowatt-hours and adding it to the projected electricity consumption provided by CalEEMod. For the "Fleet Mix", the values used were derived from the SJVAPCD District Accepted Fleet Mix for Residential Projects. For the remaining sections, including Water, Waste, Refrigerants, operational Off-Road Equipment, and Stationary Sources, default values were used, or the section(s) were set to zero.

Operational Emissions

The Project would involve the construction of 174 low-density residential homes. Operation of the Project would generate ROG, NOx, CO, SOx, PM10, and PM2.5 emissions from mobile sources, including vehicle trips from passenger vehicles; area sources, including the use of consumer products, architectural coatings for repainting, and landscape maintenance

equipment; and energy sources, including the use of electric-powered space and water heating. As discussed previously, pollutant emissions associated with long-term operations were quantified using CalEEMod for area, energy, and mobile sources, and were primarily based on CalEEMod default values. Project-generated mobile source emissions were based on the default trip rates provided by CalEEMod. Details of the emissions estimates are provided in Attachment C.

As shown in Table 7 below, the Project's operational emissions do not exceed the thresholds established by the SJVAPCD.

	CO (tpy)	ROG (tpy)	SOx (tpy)*	NOx (tpy)	PM10 (tpy)	PM2.5 (tpy)
CalEEMod Mitigation Measures Not Included						
Emissions Generated from Project Operation	**7.47**	**2.26**	**0.02**	**0.81**	**0.01**	**0.01**
SJVAPCD Thresholds of Significance	**100**	**10**	**27**	**10**	**15**	**15**
*Threshold established by SJVAPCD for SOx, however, emissions are reported as SO2 by CalEEMod.						

Table 7. Projected Operational Emissions Compared to SJVAPCD Thresholds of Significance
Sources: SJVAPCD, CalEEMod Analysis (Attachment C)

As shown in Tables 6 and 7, Project construction and operational emissions would not exceed the SJVAPCD thresholds of significance. Since the Project is not anticipated to exceed any SJVAPCD thresholds of significance, the Project will not conflict with or delay the implementation of the SJVAPCD attainment/implementation plans for criteria pollutants. The impacts resulting from CEQA Thresholds a and b would remain *less than significant.*

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment undoler an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less than Significant. The SJVAPCD is responsible for bringing air quality in the Tulare Planning Area into compliance with federal and state air quality standards. The significance thresholds and rules developed by the SJVAPCD are designed to prevent Projects from violating air quality standards or significantly contributing to existing air quality violations. As discussed above, neither construction-related emissions nor operation-related emissions will exceed the air quality thresholds for criteria pollutants established by the SJVAPCD. The SJVAPCD has also defined a threshold to determine if an Ambient Air Quality Analysis (AAQA) should be prepared for projects subject to CEQA. An AAQA is required when any construction or operational pollutant exceeds 100 pounds per

day (SJVAPCD 2018). Table 8 below indicates the construction and operational emissions for all criteria pollutants in light of the AAQA threshold.

Table 8. Criteria Pollutant Emissions Compared to AAQA Thresholds

	CO (tpy)	ROG (tpy)	SOx (tpy)*	NOx (tpy)	PM10 (tpy)	PM2.5 (tpy)
Construction						
Max Daily Emissions Generated from Project Construction	**32.2**	**60.8**	**0.06**	**4.48**	**0.1**	**0.1**
SJVAPCD Thresholds of Significance	**100**	**100**	**100**	**100**	**100**	**100**
Operation						
Max Daily Emissions Generated from Project Operation	**40.6**	**12.4**	**0.09**	**5.304**	**0.06**	**0.06**
SJVAPCD Thresholds of Significance	**100**	**100**	**100**	**100**	**100**	**100**

As shown above, none of the criteria pollutant emissions are projected to exceed the AAQA threshold of 100 pounds per day, which was established by the air district.

Moreover, the Project will comply with all applicable SJVAPCD rules and regulations, which will further reduce the potential for any significant impacts related to air quality as a result of Project implementation. Because these thresholds and regulations are designed to achieve and/or maintain federal and state air quality standards, and the Project is compliant with these thresholds and regulations, the Project will not violate an air quality standard or significantly contribute to an existing air quality violation. The impact is *less than significant.*

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact With Mitigation: This analysis is based in part on the Health Risk Assessment (HRA) prepared by Core Environmental Consulting (March 2025), provided in Appendix B.

Less than Significant with Mitigation. This discussion is partially based on the Health Risk Assessment (HRA) prepared by Core Environmental Consulting, which can be found in Attachment D.

Potential to Impact Sensitive Receptors

Construction Phase. Sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly, or people who are more sensitive than the general

population reside, such as schools, hospitals, nursing homes, and daycare centers. Los Tules Middle School is the nearest school and is located approximately 80 feet northeast of the Project site. The single-family homes located immediately to the west may also be considered sensitive receptors that may be affected by pollutants produced during the Project's construction and operation. These homes are considered the closest sensitive receptors to the site. Core Environmental identified a total of 71 nearby residential and worker receptors to the site.

During the construction phase the Project would produce diesel particulate matter (DPM), which has been classified as a carcinogen. Although the release of DPM and other toxic air contaminants may harm sensitive receptors, the extent of the impact is dependent upon the length of exposure. Core Environmental conducted an HRA using CalEEMod, the EPA's American Meteorological Society/EPA Regulatory Model (AERMOD) air dispersion model, and the CARB Hotspots Analysis and Reporting Program (HARP2) Air Dispersion Modeling and Risk Tool (ADMRT) to assess the Health Risks associated with the construction of this Peoject. The results of this HRA are shown in Table 9.

Risk	Carcinogen (max risk in one million)	Chronic Hazard Index
Construction	**4.5**	**0.00215**
SJVAPCD Thresholds of Significance	**20**	**1**
**Calculation based on mitigated emissions. See Appendix E.*		

Table 9. HRA Results Compared to SJVAPCD Thresholds of Significance

As shown in the Table above, construction risk would be below the SJVAPCD Thresholds of Significance. The results included implementation of Mitigation Measure HRA-1 which incorporates Tier 4 Engine Controls for all off-road, diesel-fueled equipment during construction. Therefore, consistent with the *CEQA Guidelines 14*, the Project would not expose sensitive receptors to substantial pollutant concentrations, and this impact would be considered *less than significant with mitigation.*

The Project would also comply with other regulatory requirements to reduce construction emissions, such as Indirect Source Review, engine controls, and anti-idling, further reducing associated risks. There is no additional mitigation required to maintain less than significant impacts.

Operational Phase. No diesel particulate matter or other toxic air contaminants would result from the operation of the planned residential units. Residential development would result however, in emissions related to architectural coatings (VOCs), transportation-related emissions (NOx, CO, VOCs, PM), and landscape maintenance (if natural gas is

used). Residents could experience additional health risk from the use of household cleaners, paints, landscaping equipment, and a number of other hazardous materials. However, these sources would be intermittent, generally more localized to the point of activity, and up to the discretion of individual residents. Regulations exist at the federal, state, and local levels for the composition, use, and disposal of hazardous materials. Compliance with existing regulations, which are strictly enforced outside of CEQA, would ensure impacts from Project operation remain less than significant.

Modeling the unmitigated DPM emissions in during the construction phase resulted in risk estimates that could exceed the SJVAPCD threshold of significance for carcinogens. Implementation of Mitigation Measure HRA-1 would reduce DPM emissions to a level that results in carcinogenic risk below the SJVAPCD threshold of significance.

Additionally, the use of Tier 4 Engine Controls is consistent with U.S. EPA, CARB, and SJVAPCD goals for implementing mitigation measures that directly reduce DPM emissions. According to the CalEEMod and health risk analysis, implementation of Mitigation Measure HRA-1 would reduce worst-year, annual DPM emissions by approximately 85%, thus reducing potential impacts and operation of 174 single-family homes. Construction and operation would not expose any sensitive receptors to any significant pollutant sources, the impact is *less than significant with mitigation.*

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant. Some typical construction-related odors would be generated during Project construction. As mentioned in Threshold C, the Project is adjacent to sensitive receptors to the west and southwest, which may be temporarily affected by such odors. The northern and southern portions of the Project site are separated by large parcels of agricultural land and light industrial operations. Due to this, odors will likely not impact a substantial number of people. Additionally, the proposed Project would not include any odor sources identified in Table 6 of the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) and no health risks associated with such odors were identified in the HRA done by Core Environmental.

The Project may create objectionable odors, but the odors would be temporary and would not affect a substantial number of people during construction. The operational phase is solely residential development, so there are no objectionable odors that would result from this phase of the Project. The impact is *less than significant.*

Section 3 – Greenhouse Gas Emissions

3.1 Greenhouse Gas Setting

Climate Change is a change in the average weather of the earth that may be measured by alterations in wind patterns, storms, precipitation, and temperatures. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level a statistical significance, specifically focusing on temperature records from the last 150 years, the Industrial Age, which differ from previous climate changes in rate and magnitude. The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHG needed to stabilize global temperatures and climate change impacts. The IPCC predicted that global mean temperatures change from 1990 to 2100, given six scenarios, could range from 1.1 degree Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC 2007). In California, climate change may result in consequences such as the following form (CCCC 2006 and Moser et al. 2009).

1. A reduction in the quality and supply of water to the State from the Sierra snowpack.
2. Increased risk of large wildfires.
3. Reduction in the quality and quantity of certain agriculture products.
4. Exacerbation of air quality problems.
5. A rise in sea levels resulting in the displacement of coastal businesses and residences.
6. Damage to marine ecosystems and their natural environment.
7. An increase in infections, disease, asthma, and other health-related problems.
8. A decrease in the health and productivity of California's forest. (CCCC 2006 and Moser et al. 2009)

Greenhouse Gases (GHG) are gases that trap heat in the atmosphere and the presence of GHGs in the atmosphere affects the earth's temperature. The effect is equivalent to the way a greenhouse retains heat. Natural processes and human activities emit greenhouse gases. Common GHGs include water vapor, carbon dioxide, methane, nitrous oxide, ozone, chlorofluorocarbons, hydro chlorofluorocarbons, hydro fluorocarbons, per fluorocarbons, sulfur, and hexafluoride. Human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations. Some greenhouse gases can remain in the atmosphere for over hundreds of years. Some GHGs have a greater impact on climate change than others. In order to accurately compare GHG emissions, a Global Warming Potential (GWP) has been calculated for each greenhouse gas based on how long it remains in the atmosphere, on average, and how strongly it absorbs energy. Gases with a higher GWP absorb more energy, per pound, than

gases with a lower GWP, and thus contribute more to global warming. For example, one pound of methane is equivalent to twenty-one pounds of carbon dioxide.

In regard to the quantity of these gases in the atmosphere, we first must establish the amount of particular gas in the air, known as Concentration, or abundance, which are measured in parts per million, parts per billion and even parts per trillion. To put this measurement in more relatable terms, one part per million is equivalent to one drop of water diluted into about thirteen gallons of water, roughly a full tank of gas in a compact car. Therefore, it can be assumed larger emission of greenhouse gases lead to a higher concentration in the atmosphere. GHGs as defined by AB 32 include the following gases: carbon dioxide, methane, nitrous oxide, hydrocarbons, perfluorocarbons, and sulfur hexafluoride. GHGs as defined by AB 32 and sources are summarized in Table 9.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Methane (CH4)	Is a flammable gas and is the main component of natural gas	12 years	21	Emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
Carbon dioxide (CO2)	An odorless, colorless, natural greenhouse gas.	30-95 years	1	Enters the atmosphere through burning fossil fuels (coal, natural gas and oil), solid waste, trees and wood products, and also as a result of certain chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
Chloro-fluorocarbons	Gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are non-toxic nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).	55-140 years	3,800 to 8,100	Were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone.

Greenhouse Gas	Description and Physical Properties	Lifetime	GWP	Sources
Hydrofluoro-carbons	A man-made greenhouse gas. It was developed to replace ozone-depleting gases found in a variety of appliances. Composed of a group of greenhouse gases containing carbon, chlorine an at least one hydrogen atom.	14 years	140 to 11,700	Powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for stratospheric ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases.
Nitrous oxide (N2O)	Commonly known as laughing gas, is a chemical compound with the formula N2O. It is an oxide of nitrogen. At room temperature, it is a colorless, non-flammable gas, with a slightly sweet odor and taste. It is used in surgery and dentistry for its anesthetic and analgesic effects.	120 years	310	Emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
Pre-fluorocarbons	Has a stable molecular structure and only breaks down by ultraviolet rays about 60 kilometers above Earth's surface.	50,000 years	6,500 to 9,200	Two main sources of pre-fluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	An inorganic, odorless, colorless, and nontoxic nonflammable gas.	3,200 years	23,900	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing and as a tracer gas.

Table 10. Greenhouse Gases

Source: *EPA, Intergovernmental Panel on Climate Change*

Each of the designated gases described above can reside in the atmosphere for different amounts of time, ranging from a few years to thousands of years. All of these gases remain in the atmosphere long enough to become well mixed, meaning that the amount that is measured in the atmosphere is roughly the same all over the world regardless of the source of the emission.

3.2 Existing Project Site

The existing Project site is under agricultural use with 32.97 acres of orchards and private dirt roads. There are no land uses on the site associated with GHG emissions, aside from agricultural employee trips and agricultural equipment usage. Orchards typically have a job density of around 0.1 to 0.3 jobs per acre (Southern California Association of Governments 2001). Therefore, the original land use on the site likely employed 9 individuals, which would have resulted in approximately 18 vehicle trips a day. Due to the nature of the current land use, the existing Project site emits a very small amount of GHG emissions, and the proposed Project would result in an increase in overall GHG emissions.

3.3 Regulatory Framework

Climate changes is a global, national, state, and local issue involving greenhouse gas emissions from all around the world; therefore, countries around the world, including the United States, have established regulations to assist in the emissions of GHGs. Tables 11 through 14 give a brief explanation of international, national, state, and local regulations.

Regulation	Adopted	Protocol
Intergovernmental Panel on Climate Change	1998	The United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economical information relevant to understanding the scientific basis of risk of human-induced climate change and its potential impacts.
United Nations Framework Convention on Climate Change	March 21, 1994	Governments gather and share information on GHG emissions, national polices and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts.
Kyoto Protocol	Adopted: December 1, 1997 Entered into Force: February 16, 2005	Sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at an average of 5% against 1990 levels over the five-year period of 2008-2012
Paris Climate Agreement	Adopted: December 12, 2015 Entered into Force: November 4 2016	The Paris Climate Agreement is an agreement within the United UNFCCC to limit global temperature rise to 2 degrees Celsius above preindustrial levels. Under the agreement, each country determines, plans, and regularly reports its own contribution to mitigate global warming. The agreement is voluntary and is not legally binding.

Table 11. International Greenhouse Gas Regulations

Regulation	Adopted	Protocol
Greenhouse Gas Endangerment	December 7, 2009	The EPA Administrator signed two distinct findings regarding GHG emissions under section 2029(a) of the Clean Air Act. 1. Endangerment Finding: The Administrator finds that the current and Projected concentrations of the six key well-mixed greenhouse gases — carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6) 2. Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.
Corporate Average Fuel Economy (CAFE)	Adopted: 1975 Revised: July 29, 2011	An agreement between thirteen large automakers (accounting for 90% of all vehicles sold in the United States), the United Auto Workers, and the State of California to increase fuel economy to 54.5 miles per gallon for cars and light-duty trucks by model year 2025.
Greenhouse Gas Reporting Program	September 22, 2009	Requires reporting of GHG emissions from large sources and suppliers in the United States. Any facility that emits 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the EPA.
New Source Review	May 13, 2013	Tailors the requirements of the Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits.
Standards of Performance for GHG Emissions for New Stationary Sources: Electrical Utility Generating Units	March 27, 2012	The EPA proposed new performance standards for emissions of carbon dioxide for new affected fossil fuel-fired electrical utility generated units. New sources greater than 25 megawatts would be required to meet an output-based standard of 1,000 pound of carbon dioxide per megawatt-hour, based on the performance of widely used natural gas combined cycle technology
Western Climate Initiative Partner	*Yet to be formally adopted*	Jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Its cap-and-trade program is estimated to be fully implemented by 2012

Table 12. Federal Greenhouse Gas Regulations

Regulation	Adopted	Protocol
Title 24	Adopted: 1978 2008 Standards Effective: January 1, 2010	California's Energy Efficiency Standards for Residential and Non-Residential Buildings. Their standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods
California Green Building Standards	January 12, 2010	A comprehensive and uniform regulatory code for all residential, commercial and K-14 school buildings.
Pavley Regulations, AB 1493	July 22, 2002	Reduce GHG emissions in new passenger vehicles from 2009 through 2016. These amendments are part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. ARB's September amendments will cement California's enforcement of the Pavley rule starting in 2009 while providing vehicle manufacturers with new compliance flexibility.
Low Carbon Fuel Standard- Executive Order S-01-07	January 18, 2007	Calls for a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. It instructed the California Environmental Protection Agency to develop and propose a draft compliance schedule to meet the 2020 target.
SB 1368	2006	The law limits long-term investments in base load generation by the state's utilities to power plants that meet an emissions performance standard (EPS).
SB 97	February 16, 2010	The Natural Resources Agency adopted Amendments to the CEQA Guidelines for greenhouse gas emissions.
AB 32	2006	Set the 2020 greenhouse gas emissions reduction goal into law. It directed the California Air Resources Board to begin developing discrete early actions to reduce greenhouse gases while also preparing a scoping plan to identify how best to reach the 2020 limit. The reduction measures to meet the 2020 target are to be adopted by the start of 2011.
SB 375	August 30, 2008	Enhances California's ability to reach its AB 32 goals by promoting good planning with the goal of more sustainable communities. Sustainable Communities requires ARB to develop regional greenhouse gas emission reduction targets for passenger vehicles. ARB is to establish targets for 2020 and 2035 for each region covered by one of the State's 18 metropolitan planning organizations
Executive Order S-13-08	2009	A comprehensive "Climate Adaptation Strategy" that would identify the state's vulnerabilities and plan accordingly. State agencies will take this report into account, due in December 2010, when planning new infrastructure such as roads, bridges, and water treatment facilities. The executive order noted that the country's longest continuously operating sea level gauge, San Francisco Bay's Fort Point, recorded a seven-inch rise in sea level over the 20th century.

SB 1078, SB 107, and Executive Order S-14-08	September 12, 2002	Requires California to generate 20% of its electricity from renewable energy by 2017. SB 107 then changes the 2017 deadline to 2010. Executive Order S-14-08 required that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020.
CEQA Guidelines Update	Adopted: April 13, 2009 Updated: May 2011	These Thresholds are designed to establish the level at which the District believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on the Air District's website and included in the Air District's updated CEQA Guidelines
Executive Order B-30-15	April 20, 2015	Establishes a California GHG reduction target of 40 percent below 1990 levels by 2030.
AB 398	July 17, 2017	Extended the California Cap and Trade program through 2030.

Table 13. State Greenhouse Gas Regulations

Regulation	Adopted	Protocol
San Joaquin Valley Air Pollution Control District		The San Joaquin Valley Air Pollution Control District is made up of eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and Kern. The Valley Air District is governed by a Governing Board consisting of representatives from the Board of Supervisors of all eight counties, one Health and Science member, one Physician, and five Valley city representatives.
SJVAPCD CEQA Greenhouse Gas Guidance	December 2009	The SJVAPCD approach is intended to streamline the process of determining if Project specific GHG emissions would have a significant effect. Best Performance Standards would be established according to performance-based determinations.
San Joaquin Valley Carbon Exchange	November 2008	Intended to quantify, verify, and track voluntary GHG emissions reductions generated within the San Joaquin Valley
Rule 2301	January 19, 2012	Emission Reduction Credit Banking. Provided an administrative mechanism for sources to bank GHG emissions, mechanism for sources to transfer GHG reductions to other users and defines eligibility standards, quantitative and procedures.

Table 14. Regional Greenhouse Gas Regulations

3.4 Thresholds and Methodology

The impact analysis provided in Chapter 2.6 is based on the application of the following California Environmental Quality Act (CEQA) Guidelines Appendix G, which indicates that a project would have a significant impact on greenhouse gas emissions if it would:

1. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.*
2. *Conflict with an applicable plan, policy or regulations adopted for the purpose of reducing the emissions of greenhouse gas emissions.*

GHG emissions and climate change were evaluated in accordance with Appendix G of the 2024 CEQA Guidelines. CEQA Guidelines Section 15064.4 states that, when making a determination with respect to the significance of a project's GHG emissions, a lead agency shall have discretion to determine whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use; and/or (2) Rely on a qualitative analysis or performance-based standards. Section 15064.4 also states that a lead agency should consider the following factors when assessing the significance of the impact of GHG emissions on the environment: (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting; (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

GHG emissions were calculated in the same CalEEMod used to determine the proposed Project's criteria air pollutant emissions. Consistent with SJVAPCD recommendations, construction emissions were amortized over a thirty-year period and added to the annual operational emissions to determine the proposed Project's annual GHG emissions. Consistent with CEQA Guidelines Section 15064(h)(3), project significance was determined based on the proposed Project's consistency with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the proposed Project. CARB's 2017 Scoping Plan applies to the proposed Project and are intended to reduce GHG emissions to meet the statewide targets set in Senate Bill (SB) 32. The project efficiency threshold of 6.7 MT CO2e.yr/capita was derived from the CARB Scoping Plan and used to determine the Project's potential impact on greenhouse gas emissions. Thus, the proposed Project would not have a significant effect on the environment if it were found to be consistent with CARB's 2017 Scoping Plan efficiency metric.

3.5 Project Impacts

a) ***Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.***

Less than Significant.

Construction. Greenhouse gases would be generated during construction from activities including site preparation, grading, building construction, application of architectural coatings, and paving. The CalEEMod Emissions report predicts that this Project will create a maximum of 421 MT of CO2e emissions per year during construction. Because the SJVAPCD does not have numeric thresholds for assessing the significance of construction related GHG emissions, predicted emissions from Project construction were compared to SJVAPCD thresholds for construction related GHG emissions. The SJVAPCD currently has a threshold

of 10,000 metric tons of CO2e per year for construction emissions amortized over a 30-year Project lifetime. Because Project construction would generate less GHG emissions than this threshold, impacts related to GHG emissions during Project construction would be less than significant.

Operation. The proposed Project would have the following operational greenhouse gas emissions:

- CO2: 2,164 metric tons per year
- CH4: 1.9 metric tons per year
- N2O: 0.09 metric tons per year
- CO2e: 2,442 metric tons per year (combined CO2, CH4, and N2O emissions w/ some margin of error due to rounding differences and addition of Global Warming Potential)

The SJVAPCD has not formally provided guidance on how to analyze GHG emissions impacts for projects within their San Joaquin Valley Air Basin (SJVAB). Until such time as SJVAPCD provides formal guidance, the following alternative metrics used by air districts in California to assess GHG emissions impacts have been identified:

Bright-Line Numeric Threshold: The bright-line significance threshold is a numeric, mass emissions threshold. In general, the bright-line threshold identifies the point at which additional analysis of project-related GHG emissions impacts is necessary. Projects below the established bright-line significance criteria have a de minimis contribution to the local, regional, and/or statewide GHG emissions inventory and have less than significant impacts. Projects above this threshold may result in a substantial increase in GHG emissions.

The bright-line threshold is based on the methodology identified in the 2016 AEP white paper (Walter et al., 2016). It is a market capture approach, reflecting the amount of emissions that 90 percent of development projects surveyed in four cities within California would generate. CAPCOA identified that a bright-line threshold set at 900 metric tons of CO2e per year would capture 90 percent of projects. In general, 900 metric tons of CO2e per year corresponds to (1) a residential development of 50 dwelling units; (2) 35,000 square feet of office space; (3) 11,000 square feet of retail space; and (4) 6,300 square feet of supermarket space. The 900 metric tons of CO2e per year is used as it is the most conservative bright line threshold. Exceeding the bright-line significance criterion does not necessarily indicate that the project generates a significant unavoidable impact. Consistent with how the bright-line threshold is applied in other air districts, this analysis utilizes the bright-line thresholds as a screening criterion to identify whether a full analysis of GHG emissions is warranted. If the project exceeds the screening threshold, the second level of analysis will compare the project to the efficiency metric discussed below.

Efficiency-Based Threshold for Residential Projects: The efficiency metric identified by some air districts in California in the absence of a county-wide GHG reduction plan is derived from CARB's Scoping Plan. Residential projects that are over the bright line threshold would not be considered significant if their overall GHG efficiency is less than 6.7 MT CO2e/yr/capita. However, it is noted that this threshold is based, in part, on the GHG reducing target established for the year 2020 under AB 32, but the Project would be implemented after the year 2020. Statewide goals for GHG reductions in the years beyond 2020 were codified into state law with the passage of SB 32, which as described previously mandates that California achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. This equates to 40 percent below the statewide GHG reduction target for the year 2020. Therefore, a 40% reduction would be: 6.7 MT CO2e/yr/capita x 60% = 4.02 MT CO2e/yr/capita.

For this Project: The average household size in the City of Tulare is 3.32 persons (US Census Bureau 2024). The Project consists of up to 174 units, leading to an estimated population of:

174 units × 3.32 persons/household = 577 people

Using the efficiency-based threshold, the allowable emissions for this residential Project would be:

577 people × 4.02 MT CO2.yr/capita = 2,319 metric tons of CO2e per year.

The total operational GHG emissions amount to 2,164 metric tons of CO2e per year. Since the Project's emissions are below the efficiency-based threshold for residential projects (2,319 metric tons of CO2e per year), the Project's operational GHG emissions are considered *less than significant.*

b) Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant. The Project will be consistent with all applicable plans, policies, and regulations, particularly the Climate Action Plan, which is included as part of the City of Tulare General Plan. Table 15 below demonstrates the consistency of the Project with all the applicable policies and goals of the City of Tulare General Plan & Climate Action Plan.

CAP Policies	Project Consistency
Energy Systems	
Energy Efficiency in New Development*: Increase energy efficiency in new commercial and residential development*	*Consistent.* The proposed Project will not utilize natural gas during its operational phase. Additionally, this Project plans to

and require new residential and commercial development to achieve enhanced energy efficiency and exceed California Energy Code requirements by 15%.	adhere to all energy conservation codes by implementing passive heating and cooling opportunities in subdivision design.
Renewable Energy For Residents: *Increase reliance on local renewable energy sources through provision of a minimum of 15% of baseline residential energy needs from on-site renewable energy sources by 2030.*	*Consistent.* The Project buildings would be designed with solar panels and would be compliant with Title 24 requirements for building efficiency.
Waste & Resource Conservation	
Reduce Water Usage and Energy consumed for groundwater pumping: *Amend the City's Building Code and other codes appropriate to require water efficiency standards in new residential and nonresidential development as established by mandatory and Tier 1 CALGreen measures.*	*Consistent.* The proposed low-density residential development will comply with the Water Conservation Ordinance of the City of Tulare as to not waste water and conserve energy used to pump groundwater for community use. Additionally, landscaping on the site will comply with the City of Tulare's Water Efficient Landscape Ordinance (CHAPTER 10.196: LANDSCAPING).
Alternative Transportation	
Increase transportation-related bicycle trips to reduce vehicle miles traveled	*Consistent.* The Project will include Class I Bike Trails throughout the site, which will increase bicycle use in the area.

Table 15. Consistency Analysis with the Tulare Climate Action Plan

The Project would not generate a cumulatively considerable GHG impact, nor would it conflict with any applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. The impact is *less than significant.*

Section 4 – Energy

4.1 Energy Setting

Electricity

According to the U.S. Energy Information Administration, California used approximately 255,224 gigawatt hours of electricity in 2018 (EIA 2024a). By sector in 2017, commercial uses utilized 46% of the state's electricity, followed by 35% for residential uses and 19% for industrial uses (EIA 2024a). Electricity usage in California for different land uses varies substantially by the types of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita in the residential sector is lower than any other state except Hawaii (EIA 2024b).

Southern California Edison (SCE) provides electricity to the Project. SCE, a subsidiary of Edison International, serves approximately 180 cities in 11 counties across central and Southern California. SCE receives electric power from a variety of sources. According to the 2022 SCE Power Content Label, renewable energy accounts for 33.2% of the overall energy resources, with geothermal resources at 5.7%, wind power at 9.8%, eligible hydroelectric sources at 0.5% and solar energy at 17% (SCE 2022).

Natural Gas

According to the U.S. Energy Information Administration, California used approximately 2,154,030 million cubic feet of natural gas in 2019 (EIA 2024a). Natural gas is used for cooking, space heating, generating electricity, and as an alternative transportation fuel. The majority of California's natural gas customers are residential and small commercial customers (core customers), which accounted for approximately 35% of the natural gas delivered by California utilities in 2018 (CPUC n.d.). Large consumers, such as electric generators and industrial customers (noncore customers), accounted for approximately 65% of the natural gas delivered by California utilities (CPUC n.d.). The CPUC regulates California natural gas rates and natural gas services, including in-state transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. Biogas (e.g., from wastewater treatment facilities or dairy farms) is just beginning to be delivered into the gas utility pipeline systems, and the state has been encouraging its development (CPUC n.d.). In 2019, PG&E delivered approximately 4.9 billion therms of natural gas to the region, with 3 billion therms for non-residential use and 1.9 billion therms for residential use (CEC 2020a, 2020b). No natural gas usage is proposed during the operational phase of the Santa Fe West Subdivision development.

Petroleum

According to the U.S. Energy Information Administration, California used approximately 681 million barrels of petroleum in 2018, with the majority (584 million barrels) used for the transportation sector (EIA 2024b). This total annual consumption equates to a daily use of approximately 1.9 million barrels of petroleum. There are 42 U.S. gallons in a barrel, so California consumes approximately 78.4 million gallons of petroleum per day, adding up to an annual consumption of 28.7 billion gallons of petroleum. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. California has implemented policies to improve vehicle efficiency and to support use of alternative transportation, which are described in Section 4.6.2, below. As such, the CEC anticipates an overall decrease of gasoline demand in the state over the next decade (CEC 2018).

4.2 Existing Project Site

The entire 32.97-acre Project site is currently under agricultural use and is occupied by orchards and private dirt access roads. The current land use of the site is associated with little to no GHG emissions and low energy use. Energy use associated agricultural operations results from tractors, spraying, and harvesting machinery, transportation, and irrigation equipment. The proposed Project would involve the removal of the existing orchards and the installation of 174 single-family homes.

4.3 Regulatory Framework

Federal

Federal Energy Policy and Conservation Act: In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 FR 62624–63200). In 2020, the Trump Administration sought to lower CAFE standards issued by the Obama Administration to require, for example, a fleet average of 40 mpg by 2026 instead of 55 mpg by 2025. On April 1, 2022, the Department of Transportation updated CAFE standard back up near Obama Administration levels, with a new fleet average of 49 mpg by 2026. Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Energy Independence and Security Act of 2007: On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased corporate average fuel economy standards for motor vehicles, the EISA includes the following other provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and lighting efficiency standards (Sections 301–325)
- Building energy efficiency (Sections 411–441)

The RFS requires ever-increasing levels of renewable fuels to replace petroleum (EPA 2024). The U.S. Environmental Protection Agency (EPA) is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the Energy Policy Act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that laid the foundation for achieving significant reductions of greenhouse gas (GHG) emissions through the use of renewable fuels, for reducing imported petroleum, and for encouraging the development and expansion of our nation's renewable fuels sector. The updated program (RFS2) includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green" jobs.

State

Warren–Alquist Act: The California Legislature passed the Warren–Alquist Act in 1974, which created the CEC. The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for buildings constructed and appliances sold in California.

- The act removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high demand projections, and transferred it to a more impartial CEC.
- The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

State of California Energy Action Plan: The CEC and CPUC approved the first State of California Energy Action Plan in 2003. The plan established shared goals and specific actions to ensure the provision of adequate, reliable, and reasonably priced electrical power and natural gas supplies; it also identified cost-effective and environmentally sound energy policies, strategies, and actions for California's consumers and taxpayers. In 2005, the CEC and CPUC adopted a second Energy Action Plan to reflect various policy changes and actions of the prior 2 years. At the beginning of 2008, the CEC and CPUC determined that it was not necessary or productive to prepare a new energy action plan. This determination was based, in part, on a finding that the state's energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed below). Rather than produce a new energy action plan, the CEC and CPUC prepared an "update" that examines the state's ongoing actions in the context of global climate change.

Assembly Bill 32 (2006) and Senate Bill 32 (2016): In 2006, the State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the Legislature enacted Senate Bill (SB) 32, which extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40% below 1990 levels by 2030. In accordance with AB 32 and SB 32, the California Air Resources Board (CARB) prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focus on increasing energy efficiencies, using renewable resources, and reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the state's GHG emissions reduction planning framework creates co-benefits for energy-related resources.

California Building Standards: Part 6 of Title 24 of the California Code of Regulations (CCR) was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and nonresidential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically to incorporate and consider new energy efficiency technologies and methodologies. The current Title 24, Part 6 standards, referred to as the 2019 Title 24 Building Energy Efficiency Standards, became effective on January 1, 2020. In general, single-family residences built to the 2019 standards are anticipated to use approximately 7% less energy due to energy efficiency measures than those built to the 2016 standards; once rooftop solar electricity generation is factored in, single-family residences built under the 2019 standards use approximately 53% less energy than those under the 2016 standards (CEC 2019).

Nonresidential buildings built to the 2019 standards are anticipated to use an estimated 30% less energy than those built to the 2016 standards (CEC 2019). Title 24 also includes Part 11, the California Green Building Standards (CALGreen). CALGreen establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The 2019 CALGreen standards are the current applicable standards. For nonresidential projects, some of the key mandatory CALGreen 2019 standards involve requirements related to bicycle parking, designated parking for clean air vehicles, electric vehicle charging stations, shade trees, water conserving plumbing fixtures and fittings, outdoor potable water use in landscaped areas, recycled water supply systems, construction waste management, and excavated soil and land clearing debris (24 CCR Part 11).

Local

City of Tulare General Plan: The 2030 General Plan includes the following policies related to energy use and efficiency in the Air Quality and Greenhouse Gases Element and the Circulation Element:

- **T-P-41** - Integrate the bicycle transportation system into new development and infill redevelopment. Development shall provide short term bicycle parking and long-term bicycle storage facilities, such as bicycle racks, stocks, and rental bicycle lockers. Development also shall provide safe and convenient bicycle and pedestrian access to high activity land uses such as schools, parks, shopping, employment, and entertainment centers.
- **T-P-53** - Develop flexible parking requirements in the zoning ordinance for development proposals based on "best practices" and the proven potential to reduce parking demand.
- **AQ-P-12** - Support the implementation of Voluntary Emissions Reduction Agreements (VERA) with the San Joaquin Valley Air Pollution Control District (the District) for individual development projects that may exceed District significance thresholds.
- **AQ-P-16** - Support State efforts to reduce greenhouse gases and emissions through local action that will reduce motor vehicle use, support alternative forms of transportation, require energy conservation in new construction, and energy management in public buildings, in compliance with AB 32.

4.4 Thresholds and Methodology

The impact analysis provided in Chapter 4.5 is based on the application of the following California Environmental Quality Act (CEQA) Guidelines Appendix G, which indicates that a Project would have a significant impact on energy use if it would:

1. *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?*

2. *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

The methodology applied to assess the Project's potential impacts involved the use of the California Emissions Estimator Model (CalEEMod) Version 2022.1.1 (CAPCOA 2022) that can be found in Attachment C. For the construction phase, energy use would be attributed to worker trips and operation of construction equipment. Diesel and gasoline would be utilized to fuel on and off-road construction equipment during this phase of the Project. Energy use associated with the operational phase would result from residential vehicle trips (mobile sources) and activities in homes that consume energy in the form of electricity. No natural gas will be utilized by the proposed residential buildings, so all building activities would utilize electricity. Although electricity generation produces criteria pollutants and GHGs, these are emitted offsite at fossil fuel power plants and these pollutants are not attributed to individual buildings or electricity users. The power plants responsible for electricity generation are existing stationary sources permitted by air districts and/or the USEPA, criteria pollutant emissions are generally associated with the power plants themselves. These criteria pollutant emissions are subject to local, state and federal control measures. (CAPCOA 2022)

Unlike criteria pollutants, GHG emissions at these offsite power plants are not subject to the same stationary source permitting requirements and it is difficult to mitigate GHG emissions associated with them. Therefore, the most effective way to control GHGs from power plants is to reduce electricity demand by electricity users, which can be mitigated through building efficiency measures. As a result, the CalEEMod program calculates GHG emissions (not criteria pollutant emissions) from regional power plants associated with building electricity use. To reduce GHG emissions and energy usage, the Project will comply with the provisions of Part 6 of the Title 24 California Code of Regulations, which is the Building Energy Efficiency Standards (Energy Code). The California Energy Commission implements Title 24, Part 6 to increase the energy efficiency of newly constructed residential buildings. The latest Energy Code is for 2023, which was the 2022 Energy Code (CAPCOA 2022).

When calculating energy use associated with mobile sources and residential buildings, CalEEMod defaults were used for vehicle trips lengths, vehicle trip counts, and electricity consumption. Natural gas emission factors were set to zero to account for the absence of direct natural gas consumption on the Project site. In order to calculate energy consumption from mobile sources in MBTUs, 2023 gasoline/diesel miles per gallon (MPG) factors provided by the EMFAC2017 Emissions Inventory were used. To simplify the estimation process for the construction phase, it was assumed that all worker vehicles used gasoline as fuel source and all vendor vehicles used diesel as a fuel source. Project-specific construction equipment was entered using data modeled from previous, completed construction projects. Energy Calculations for both construction and operational phases are provided in Attachment E.

4.5 Project Impacts

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Less than Significant Impact. The proposed Project includes the construction and operation of 174 units of single-family residential housing. During Project construction, there would be an increase in energy consumption related to worker trips and the operation of construction equipment. This increase in energy use would be temporary and limited to the greatest extent feasible through compliance with local, state, and federal regulations. Vehicle fuel consumption during Project construction was estimated based on the assumed construction schedule, vehicle trip lengths, and the number of workers per construction phase as provided by CalEEMod Version 2022.1.1, and Year 2024 gasoline/diesel MPG factors provided by EMFAC2017. Detailed energy calculations are provided in Attachment E. To simplify the estimation process, it was assumed that all worker vehicles used gasoline as a fuel source and all off-road equipment, hauling vehicles, and vendor vehicles used diesel as a fuel source. Table 16, below, provides gasoline and diesel fuel used by off-road and on-road vehicles/construction equipment during each phase of Project construction.

Off-Road Equipment Fuel (Diesel)		On-Road Vehicle Fuel				Total MMBTU
		Diesel		Gasoline		
Gallons	MMBTU	Gallons	MMBTU	Gallons	MMBTU	
172,483	23,975	40,260	5,596	17,182	1,995	31,566
Total Construction Energy Use						31,566
Average Annual Construction Energy Use						21,044

Table 16. On & Off-Road Mobile Fuel Use Generated by Construction Activities

Sources: CalEEMod (v.2022.1.1); EMFAC2017 (See Attachment E)

While construction of the proposed Project will result in additional energy consumption, this energy use is not unnecessary or inefficient. This energy use is justified by the energy-efficient nature of the proposed Project, which will be entirely reliant on electricity, rather than natural gas for all operational components (in-home appliances). The California Energy Commission is responsible for the development and enforcement of specific strategies to create energy efficient buildings for new residential development. These strategies are implemented through Title 24, Part 6 of the California Building Code, which requires developers to include certain measures (including solar panels on all new residential buildings) to achieve required building efficiency standards.

Mobile Fuel Use		**Gal/Year**	**MMBTU**
	Gasoline	149,123	17,937
	Diesel	22,956	3,154
Electricity Use		**kWh/Year**	**Total MMBTU**
		3,308,188	11,288
		Total Operational Energy Use	**Total MMBTU**
			38,732

Table 17. On-Road Mobile Fuel Use and Electricity Use Generated by Operational Activities

Sources: CalEEMod (v. 2022.1.1); EMFAC2021 (See Attachment E)

As shown in Table 17, annual energy use associated with Project operations would total approximately 29,958 MMBTUs per year. Annual energy use is expected to decrease over time as a result of improvements in vehicle fuel efficiency standards. The proposed Project will be subject to energy conservation requirements in the California Energy Code (24 CCR Part 6, California's Energy Efficiency Standards for Residential and Nonresidential Buildings) and the California Green Building Standards Code (CALGreen) (24 CCR Part 11). Adherence to Title 24 requirements would ensure that the Project would not result in wasteful or inefficient use of energy resources due to building operation or vehicle trips. Additionally, the operational component of the Project will not utilize natural gas directly and will rely entirely on electricity.

Because construction-related energy use would be temporary and limited to the greatest extent feasible through consistency with Federal, State, and local policies related to energy conservation, and operation of the Project will comply with all energy efficiency standards required under Title 24, Part 6, and these standards were specifically developed to achieve net zero energy for residential Projects, it can be presumed that the Project will not result in inefficient, unnecessary, or wasteful energy use. The impact is *less than significant.*

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact: The proposed Project will not conflict with or obstruct any state or local plans for renewable energy or energy efficiency. The construction and operation of the Project will comply with applicable energy efficiency regulations included in CALGreen, Title 24, CARB, and the Tulare General Plan. The proposed Project will comply with all state and local policies related to energy efficiency and there is *no impact.*

Section 5 – Cumulative Impacts

The geographic scope considered for the analysis of cumulative air quality, greenhouse gas emission, and energy impacts is Tulare County, the San Joaquin Valley Air Basin (SJVAB) and the state of California.

Air Quality

A project's emissions may be individually limited but cumulatively considerable when taken in combination with past, present, and future development within the SJVAB. If a project would result in a significant impact based on the SJVAPCD annual thresholds of significance for criteria pollutants, then the project would also be considered cumulatively significant. However, even if project emissions are below the annual significance thresholds for criteria pollutants, the impact may still be cumulatively significant. For instance, if a project results in criteria pollutant concentrations that exceed any of the federal health-based ambient air concentration standards or causes a worsening of areas already exceeding those standards, the project's impacts would be considered individually significant and cumulatively significant.

In addition, the combined emissions of a project and cumulative development located within the same area could potentially cause or worsen an exceedance of the concentration standards, whereby the project would have a cumulatively significant impact (SJVAPCD 2015). In regard to TACs, because impacts are localized and the SJVAPCD thresholds of significance for TACs have been established at an extremely conservative level, risks that equal or exceed the individual thresholds of significance are also considered cumulatively significant (SJVAPCD 2015). No other cumulative risk thresholds would apply. The SJVAPCD has not established cumulative significance thresholds regarding odor impacts.

Construction and operation-related impacts would be less than significant. The Project does not exceed construction and operational criteria pollutant and TAC health risk thresholds. Therefore, the Project's cumulative impacts with respect to criteria pollutant and TAC emissions would remain *less than cumulatively significant.*

Greenhouse Gas Emissions

The geographic area considered for the analysis of cumulative GHG impacts is the state of California, which is the geographic scope of the California Air Resources Board (CARB) 2017 Scoping Plan. However, Project emissions inherently contribute and relate to broader national and global concentrations of greenhouse gases in the atmosphere. As discussed in Section 3.4 Thresholds and Methodology, the Project would not result in significant impacts if the Project's efficiency metric was in compliance with the efficiency threshold established in CARB's 2017 Scoping Plan. Based on the analysis presented in Section 3.5 Project Impacts, the Project's emissions will not exceed the efficiency metric for a Project of its size and is therefore compliant with CARB's 2017 Scoping Plan. Additionally, the Project is consistent with the City's CAP and General Plan policies, which both promote economic growth while achieving greater energy

efficiency. The Project will exclude natural gas usage during its operational phase, which greatly reduces the direct GHG emissions resulting from the development. All electric, energy efficient appliances will be used in the residential Project. Therefore, impacts would be *less than cumulatively significant.*

Energy

The geographic area considered for the analysis of cumulative energy impacts is Tulare County. Potential cumulative impacts on energy would result if the Project, in combination with past, present, and future projects, would result in the wasteful or inefficient use of energy. Significant energy impacts could result from development that would not incorporate sufficient building energy efficiency features or would not achieve building energy efficiency standards, or if projects result in the unnecessary use of energy during construction or operation.

The Project would not result in wasteful, inefficient, or unnecessary use of energy during construction or operations, nor would it conflict with an applicable plan. Cumulative projects within the County would have a construction period during which electricity, natural gas, and petroleum would be used; however, it is expected that such usage would be temporary and would not constitute a wasteful, inefficient, or unnecessary consumption of energy. Additionally, although some of the cumulative projects within the County could result in increases in energy consumption during their operation, the increased demand is anticipated to be minimal relative to statewide energy usage and, in combination with the Project, would not contribute to any potentially significant cumulative energy impacts.

Furthermore, any commercial and residential cumulative projects that may take place in the County that include long-term energy demand would be subject to CALGreen, which provides energy efficiency standards. In addition, cumulative projects would be required to meet or exceed the Title 24 building standards, as applicable, further reducing the inefficient use of energy. Future development would also be required to meet even more stringent requirements, including the objectives set forth in the AB 32 Scoping Plan, which seek to make all newly constructed residential homes produce a sustainable amount of renewable energy through the use of on-site photovoltaic solar systems. Furthermore, various federal and state regulations, including the Low Carbon Fuel Standard, Pavley Clean Car Standards, and Low Emission Vehicle Program, would serve to reduce the transportation fuel demand of cumulative projects.

The Project will comply with Title 24 building standards, which will include the installation of solar panels on all residential homes, and the exclusion of natural gas usage for all residential buildings during its operational phase. For the reasons above, the Project, together with the cumulative projects, would not result in wasteful, inefficient, or unnecessary use of energy, or conflict with applicable plans. Therefore, the Project, in combination with past, present, and

reasonably foreseeable future development, would not result in a significant cumulative impact related to energy, and the impacts would be *less than cumulatively considerable.*

Section 6 – Mitigation Measures

Mitigation Measures (Air Quality, Greenhouse Gas Emissions and Energy Use)

Mitigation Measure HRA-1: Implement Tier 4 Engine Controls for all off-road, diesel-fueled equipment during construction. the use of Tier 4 engine controls is consistent with U.S. EPA, CARB, and SJVAPCD goals for implementing mitigation measures that directly reduce DPM emissions. Tier 4 generally requires the addition of emissions control equipment to new engines, such as a Diesel Particulate Filter (DPF).

Section 7 – Conclusions and Recommendations

Construction and operation of the proposed Project would result in criteria pollutant, toxic air contaminant, and GHG emissions, as well as an increase in energy use. However, all types of emissions would not exceed the thresholds of significance established by the SJVAPCD and the California Air Resources Board (CARB), as discussed in Sections 2 and 3 (Section 2 - Air Quality & Section 3 - Greenhouse Gas Emissions). As discussed in Section 4.5 Project Impacts (Energy), the Project would remain in compliance with Title 24, Part 6 Building Energy Efficiency Standards and would exclude natural gas usage in the operational phase. Therefore, the Project would not result in significant impacts due to a wasteful or unnecessary use of energy resources, nor would it conflict with any local plan for energy efficiency (Title 24, Part 6). Overall, the Project would not conflict with any local plans or policies including those listed in the SJVAPCD State Implementation Plans (SIPs), the City of Tulare CAP, the City of Tulare General Plan, and the 2017 CARB Scoping Plan. Impacts due to air quality emissions, greenhouse gas emissions and energy use from the proposed Project would be *less than significant*. In order to reduce potential impacts to sensitive receptors due to the release of toxic air contaminants during construction, Mitigation HRA-1 (Tier 4 Engine Controls) would be incorporated. Implementation of Mitigation Measure HRA-1 would ensure impacts to sensitive receptors are *less than significant with mitigation.* Cumulative impacts related to air quality, greenhouse gas emissions and energy use would remain *less than cumulatively significant.*

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Santa Fe West Subdivision
Construction Start Date	1/1/2026
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	24.4
Location	36.231386213082885, -119.35604588659939
County	Tulare
City	Tulare
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2742
EDFZ	9
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

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
Single Family Housing	174	Dwelling Unit	33.0	339,300	2,038,037	—	588	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-C	Water Unpaved Construction Roads
Transportation	T-32*	Orient Project Toward Transit, Bicycle, or Pedestrian Facility
Transportation	T-33*	Locate Project near Bike Path/Bike Lane
Transportation	T-34*	Provide Bike Parking
Transportation	T-35*	Provide Tra c Calming Measures
Energy	E-2	Require Energy Efficient Appliances
Energy	E-12-B	Install Electric Space Heater in Place of Natural Gas Heaters in Residences
Energy	E-13	Install Electric Ranges in Place of Gas Ranges
Energy	E-15	Require All-Electric Development
Water	W-5	Design Water-Efficient Landscapes
Area Sources	AS-1	Use Low-VOC Cleaning Supplies
Area Sources	LL-1	Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment
Area Sources	AS-2	Use Low-VOC Paints

* 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.	60.9	60.8	27.3	28.4	0.06	1.12	3.70	4.82	1.03	1.45	2.48	—	6,717	6,717	0.28	0.09	2.28	6,741

Mit.	60.8	60.8	4.48	36.2	0.06	0.12	3.70	3.82	0.12	1.45	1.57	—	6,717	6,717	0.28	0.09	2.28	6,741
% Reduced	< 0.5%	< 0.5%	84%	-27%	—	89%	—	21%	88%	—	37%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.82	3.22	29.2	29.4	0.06	1.24	7.76	9.00	1.14	3.96	5.11	—	6,703	6,703	0.28	0.09	0.06	6,728
Mit.	0.73	0.72	4.50	36.0	0.06	0.12	7.76	7.86	0.12	3.96	4.06	—	6,703	6,703	0.28	0.09	0.06	6,728
% Reduced	81%	78%	85%	-23%	—	90%	—	13%	89%	—	20%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.23	6.17	9.72	12.0	0.02	0.38	1.08	1.46	0.35	0.44	0.79	—	2,525	2,525	0.10	0.07	0.63	2,543
Mit.	5.98	5.97	2.52	13.8	0.02	0.06	1.08	1.14	0.06	0.44	0.50	—	2,525	2,525	0.10	0.07	0.63	2,543
% Reduced	4%	3%	74%	-15%	—	85%	—	22%	84%	—	37%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.14	1.13	1.77	2.19	< 0.005	0.07	0.20	0.27	0.06	0.08	0.14	—	418	418	0.02	0.01	0.10	421
Mit.	1.09	1.09	0.46	2.51	< 0.005	0.01	0.20	0.21	0.01	0.08	0.09	—	418	418	0.02	0.01	0.10	421
% Reduced	4%	3%	74%	-15%	—	85%	—	22%	84%	—	37%	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.73	3.14	27.3	28.4	0.06	1.12	3.70	4.82	1.03	1.45	2.48	—	6,717	6,717	0.28	0.09	2.28	6,741
2027	1.56	1.33	10.1	15.7	0.03	0.34	0.45	0.79	0.32	0.11	0.42	—	3,144	3,144	0.13	0.09	2.05	3,177

2028	60.9	60.8	9.56	15.5	0.03	0.31	0.45	0.75	0.28	0.11	0.39	—	3,127	3,127	0.13	0.09	1.83	3,159
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.82	3.22	29.2	29.4	0.06	1.24	7.76	9.00	1.14	3.96	5.11	—	6,703	6,703	0.28	0.09	0.06	6,728
2027	1.52	1.29	10.1	15.1	0.03	0.34	0.45	0.79	0.32	0.11	0.42	—	3,102	3,102	0.12	0.09	0.05	3,134
2028	1.46	1.24	9.63	15.0	0.03	0.31	0.45	0.75	0.28	0.11	0.39	—	3,087	3,087	0.12	0.09	0.05	3,118
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.38	1.17	9.72	12.0	0.02	0.38	1.08	1.46	0.35	0.44	0.79	—	2,525	2,525	0.10	0.05	0.47	2,543
2027	1.09	0.93	7.22	10.8	0.02	0.24	0.31	0.56	0.23	0.08	0.30	—	2,224	2,224	0.09	0.07	0.63	2,247
2028	6.23	6.17	2.73	4.28	0.01	0.09	0.11	0.20	0.08	0.03	0.11	—	820	820	0.03	0.02	0.19	828
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.25	0.21	1.77	2.19	< 0.005	0.07	0.20	0.27	0.06	0.08	0.14	—	418	418	0.02	0.01	0.08	421
2027	0.20	0.17	1.32	1.98	< 0.005	0.04	0.06	0.10	0.04	0.01	0.06	—	368	368	0.02	0.01	0.10	372
2028	1.14	1.13	0.50	0.78	< 0.005	0.02	0.02	0.04	0.02	< 0.005	0.02	—	136	136	0.01	< 0.005	0.03	137

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.74	0.74	4.48	36.2	0.06	0.12	3.70	3.82	0.12	1.45	1.57	—	6,717	6,717	0.28	0.09	2.28	6,741
2027	0.68	0.63	3.49	17.5	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,144	3,144	0.13	0.09	2.05	3,177
2028	60.8	60.8	3.45	17.3	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,127	3,127	0.13	0.09	1.83	3,159
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.73	0.72	4.50	36.0	0.06	0.12	7.76	7.86	0.12	3.96	4.06	—	6,703	6,703	0.28	0.09	0.06	6,728
2027	0.64	0.59	3.56	17.0	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,102	3,102	0.12	0.09	0.05	3,134

2028	0.62	0.58	3.52	16.8	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,087	3,087	0.12	0.09	0.05	3,118
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.42	0.40	2.30	13.8	0.02	0.06	1.08	1.14	0.06	0.44	0.50	—	2,525	2,525	0.10	0.05	0.47	2,543
2027	0.46	0.42	2.52	12.2	0.02	0.06	0.31	0.37	0.06	0.08	0.13	—	2,224	2,224	0.09	0.07	0.63	2,247
2028	5.98	5.97	0.98	4.73	0.01	0.02	0.11	0.13	0.02	0.03	0.04	—	820	820	0.03	0.02	0.19	828
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.08	0.07	0.42	2.51	< 0.005	0.01	0.20	0.21	0.01	0.08	0.09	—	418	418	0.02	0.01	0.08	421
2027	0.08	0.08	0.46	2.22	< 0.005	0.01	0.06	0.07	0.01	0.01	0.02	—	368	368	0.02	0.01	0.10	372
2028	1.09	1.09	0.18	0.86	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	136	136	0.01	< 0.005	0.03	137

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.	15.1	14.5	4.62	61.1	0.10	0.07	9.76	9.83	0.07	2.47	2.54	109	14,182	14,291	11.7	0.55	33.8	14,782
Mit.	13.6	13.1	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	109	14,027	14,135	11.7	0.55	33.8	14,626
% Reduced	10%	10%	2%	16%	—	7%	—	< 0.5%	5%	—	< 0.5%	—	1%	1%	< 0.5%	< 0.5%	—	1%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.4	12.9	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	13,086	13,195	11.8	0.60	3.24	13,671
Mit.	12.9	12.4	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	12,953	13,061	11.8	0.59	3.24	13,536
% Reduced	4%	4%	—	—	—	—	—	—	—	—	—	—	1%	1%	< 0.5%	< 0.5%	—	1%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	13.8	13.3	4.85	45.8	0.10	0.07	9.39	9.45	0.06	2.38	2.44	109	13,107	13,215	11.8	0.56	15.7	13,692
Mit.	12.8	12.4	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	109	12,962	13,071	11.7	0.56	15.7	13,547
% Reduced	7%	7%	1%	11%	—	3%	—	< 0.5%	3%	—	< 0.5%	—	1%	1%	< 0.5%	< 0.5%	—	1%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.53	2.44	0.89	8.36	0.02	0.01	1.71	1.73	0.01	0.43	0.45	18.0	2,170	2,188	1.95	0.09	2.59	2,267
Mit.	2.34	2.26	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	18.0	2,146	2,164	1.94	0.09	2.59	2,243
% Reduced	7%	7%	1%	11%	< 0.5%	3%	—	< 0.5%	3%	—	< 0.5%	—	1%	1%	< 0.5%	< 0.5%	—	1%

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	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Area	8.75	8.70	0.09	9.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	126	126	0.01	< 0.005	—	127
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,233	3,233	0.31	0.04	—	3,251
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	15.1	14.5	4.62	61.1	0.10	0.07	9.76	9.83	0.07	2.47	2.54	109	14,182	14,291	11.7	0.55	33.8	14,782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Area	7.84	7.84	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,233	3,233	0.31	0.04	—	3,251
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172

Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	13.4	12.9	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	13,086	13,195	11.8	0.60	3.24	13,671
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.55	5.08	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	—	9,729	9,729	0.52	0.49	13.2	9,900
Area	8.29	8.27	0.05	4.88	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	35.4	35.4	< 0.005	< 0.005	—	35.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,233	3,233	0.31	0.04	—	3,251
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	13.8	13.3	4.85	45.8	0.10	0.07	9.39	9.45	0.06	2.38	2.44	109	13,107	13,215	11.8	0.56	15.7	13,692
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Area	1.51	1.51	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.86	5.86	< 0.005	< 0.005	—	5.88
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	535	535	0.05	0.01	—	538
Water	—	—	—	—	—	—	—	—	—	—	—	2.35	18.2	20.6	0.24	0.01	—	28.4
Waste	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	2.53	2.44	0.89	8.36	0.02	0.01	1.71	1.73	0.01	0.43	0.45	18.0	2,170	2,188	1.95	0.09	2.59	2,267

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	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Area	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,140	3,140	0.30	0.04	—	3,158
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	13.6	13.1	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	109	14,027	14,135	11.7	0.55	33.8	14,626
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Area	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,136	3,136	0.30	0.04	—	3,154
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	12.9	12.4	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	12,953	13,061	11.8	0.59	3.24	13,536
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.55	5.08	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	—	9,729	9,729	0.52	0.49	13.2	9,900
Area	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	22.3	22.3	< 0.005	< 0.005	—	22.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,138	3,138	0.30	0.04	—	3,156
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	12.8	12.4	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	109	12,962	13,071	11.7	0.56	15.7	13,547
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Area	1.33	1.33	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	519	519	0.05	0.01	—	523
Water	—	—	—	—	—	—	—	—	—	—	—	2.35	12.2	14.5	0.24	0.01	—	22.3

Waste	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	2.34	2.26	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	18.0	2,146	2,164	1.94	0.09	2.59	2,243

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.17	1.60	1.58	< 0.005	0.07	—	0.07	0.06	—	0.06	—	290	290	0.01	< 0.005	—	291

Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.1	48.1	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.5	91.5	0.01	< 0.005	0.01	93.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	—	5.20	5.20	< 0.005	< 0.005	0.01	5.29
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	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.88

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.14	1.55	< 0.005	0.01	—	0.01	0.01	—	0.01	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	48.1	48.1	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.5	91.5	0.01	< 0.005	0.01	93.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	—	5.20	5.20	< 0.005	< 0.005	0.01	5.29
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	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	3.36	3.40	0.01	0.14	—	0.14	0.13	—	0.13	—	814	814	0.03	0.01	—	816

Dust From Material Movement	—	—	—	—	—	—	0.44	0.44	—	0.18	0.18	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.61	0.62	< 0.005	0.03	—	0.03	0.02	—	0.02	—	135	135	0.01	< 0.005	—	135
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.11	0.10	0.05	0.88	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	118	118	0.01	0.01	0.42	120
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.69	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	105	105	0.01	0.01	0.01	106
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	0.01	0.01	0.01	0.09	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.4	13.4	< 0.005	< 0.005	0.02	13.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.21	2.21	< 0.005	< 0.005	< 0.005	2.25
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

3.4. Grading (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	0.55	4.36	0.01	0.02	—	0.02	0.02	—	0.02	—	814	814	0.03	0.01	—	816
Dust From Material Movement	—	—	—	—	—	—	0.44	0.44	—	0.18	0.18	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.80	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	135	135	0.01	< 0.005	—	135
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.11	0.10	0.05	0.88	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	118	118	0.01	0.01	0.42	120
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.69	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	105	105	0.01	0.01	0.01	106

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	0.01	0.01	0.01	0.09	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.4	13.4	< 0.005	< 0.005	0.02	13.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.21	2.21	< 0.005	< 0.005	< 0.005	2.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	0.48	4.42	5.81	0.01	0.17	—	0.17	0.16	—	0.16	—	1,074	1,074	0.04	0.01	—	1,078
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.81	1.06	< 0.005	0.03	—	0.03	0.03	—	0.03	—	178	178	0.01	< 0.005	—	178
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.33	0.31	0.17	2.75	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	370	370	0.02	0.02	1.32	377
Vendor	0.02	0.02	0.54	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	392	392	0.01	0.06	0.96	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.29	0.26	0.22	2.16	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	327	327	0.03	0.02	0.03	333
Vendor	0.02	0.01	0.58	0.21	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	393	393	0.01	0.06	0.03	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.13	0.13	0.09	1.00	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	152	152	0.01	0.01	0.25	155
Vendor	0.01	0.01	0.25	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	176	176	< 0.005	0.03	0.19	184

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.2	25.2	< 0.005	< 0.005	0.04	25.6
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.1	29.1	< 0.005	< 0.005	0.03	30.5
Hauling	0.00	0.00	0.00	0.00	0.00	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. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.15	1.26	6.64	0.01	0.03	—	0.03	0.03	—	0.03	—	1,074	1,074	0.04	0.01	—	1,078

Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.03	0.03	0.23	1.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	178	178	0.01	< 0.005	—	178
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.33	0.31	0.17	2.75	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	370	370	0.02	0.02	1.32	377
Vendor	0.02	0.02	0.54	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	392	392	0.01	0.06	0.96	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.29	0.26	0.22	2.16	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	327	327	0.03	0.02	0.03	333
Vendor	0.02	0.01	0.58	0.21	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	393	393	0.01	0.06	0.03	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.13	0.13	0.09	1.00	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	152	152	0.01	0.01	0.25	155
Vendor	0.01	0.01	0.25	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	176	176	< 0.005	0.03	0.19	184
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.2	25.2	< 0.005	< 0.005	0.04	25.6
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.1	29.1	< 0.005	< 0.005	0.03	30.5
Hauling	0.00	0.00	0.00	0.00	0.00	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. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.71	9.24	0.02	0.24	—	0.24	0.22	—	0.22	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	1.22	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	283	283	0.01	< 0.005	—	284

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31	0.28	0.15	2.53	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	362	362	0.02	0.02	1.19	369
Vendor	0.02	0.02	0.52	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	384	384	0.01	0.06	0.86	403
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.27	0.25	0.19	1.98	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	321	321	0.02	0.02	0.03	326
Vendor	0.02	0.01	0.55	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	385	385	0.01	0.06	0.02	402
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.19	0.18	0.13	1.46	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	238	238	0.02	0.01	0.37	242
Vendor	0.02	0.01	0.38	0.14	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	275	275	0.01	0.04	0.26	287
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.04	0.03	0.02	0.27	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.3	39.3	< 0.005	< 0.005	0.06	40.0
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	45.4	45.4	< 0.005	0.01	0.04	47.6
Hauling	0.00	0.00	0.00	0.00	0.00	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. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.23	2.01	10.6	0.02	0.05	—	0.05	0.05	—	0.05	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.37	1.93	< 0.005	0.01	—	0.01	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.31	0.28	0.15	2.53	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	362	362	0.02	0.02	1.19	369
Vendor	0.02	0.02	0.52	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	384	384	0.01	0.06	0.86	403
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.27	0.25	0.19	1.98	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	321	321	0.02	0.02	0.03	326
Vendor	0.02	0.01	0.55	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	385	385	0.01	0.06	0.02	402
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.19	0.18	0.13	1.46	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	238	238	0.02	0.01	0.37	242
Vendor	0.02	0.01	0.38	0.14	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	275	275	0.01	0.04	0.26	287
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.04	0.03	0.02	0.27	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.3	39.3	< 0.005	< 0.005	0.06	40.0
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	45.4	45.4	< 0.005	0.01	0.04	47.6
Hauling	0.00	0.00	0.00	0.00	0.00	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 (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.87	2.71	< 0.005	0.06	—	0.06	0.06	—	0.06	—	502	502	0.02	< 0.005	—	504
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.05	0.04	0.34	0.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	83.1	83.1	< 0.005	< 0.005	—	83.4
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	0.28	0.27	0.14	2.33	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	355	355	0.02	0.01	1.08	361
Vendor	0.02	0.01	0.50	0.18	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.76	393
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.25	0.24	0.18	1.83	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	314	314	0.01	0.02	0.03	320
Vendor	0.02	0.01	0.53	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.02	392
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.05	0.05	0.03	0.40	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	68.3	68.3	< 0.005	< 0.005	0.10	69.5
Vendor	< 0.005	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.5	78.5	< 0.005	0.01	0.07	82.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.01	13.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	0.59	3.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	502	502	0.02	< 0.005	—	504
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	83.1	83.1	< 0.005	< 0.005	—	83.4
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	0.28	0.27	0.14	2.33	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	355	355	0.02	0.01	1.08	361
Vendor	0.02	0.01	0.50	0.18	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.76	393
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.25	0.24	0.18	1.83	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	314	314	0.01	0.02	0.03	320
Vendor	0.02	0.01	0.53	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.02	392
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.05	0.05	0.03	0.40	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	68.3	68.3	< 0.005	< 0.005	0.10	69.5
Vendor	< 0.005	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.5	78.5	< 0.005	0.01	0.07	82.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.01	13.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.69	6.63	9.91	0.01	0.26	—	0.26	0.24	—	0.24	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.00	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	0.07	0.64	0.95	< 0.005	0.02	—	0.02	0.02	—	0.02	—	145	145	0.01	< 0.005	—	145

Paving	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	0.12	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Paving	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	0.07	0.06	0.03	0.56	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	85.0	85.0	< 0.005	< 0.005	0.26	86.5
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.49	7.49	< 0.005	< 0.005	0.01	7.62
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	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26
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

3.12. Paving (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	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	0.02	0.02	0.19	1.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	145	145	0.01	< 0.005	—	145
Paving	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	< 0.005	< 0.005	0.03	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Paving	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	0.07	0.06	0.03	0.56	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	85.0	85.0	< 0.005	< 0.005	0.26	86.5
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.49	7.49	< 0.005	< 0.005	0.01	7.62
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	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26
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

3.13. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134

Architectural Coating	60.7	60.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.8	12.8	< 0.005	< 0.005	—	12.8
Architectural Coatings	5.82	5.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.12	2.12	< 0.005	< 0.005	—	2.13
Architectural Coatings	1.06	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	0.05	0.03	0.47	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.0	71.0	< 0.005	< 0.005	0.22	72.2
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
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	—	6.25	6.25	< 0.005	< 0.005	0.01	6.36
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	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.05
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

3.14. Architectural Coating (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	60.7	60.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.8	12.8	< 0.005	< 0.005	—	12.8
Architectural Coatings	5.82	5.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.12	2.12	< 0.005	< 0.005	—	2.13
Architectural Coatings	1.06	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	0.05	0.03	0.47	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.0	71.0	< 0.005	< 0.005	0.22	72.2
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
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	—	6.25	6.25	< 0.005	< 0.005	0.01	6.36
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	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.05
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Total	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Total	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Total	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Total	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Total	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Total	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	535	535	0.05	0.01	—	538
Total	—	—	—	—	—	—	—	—	—	—	—	—	535	535	0.05	0.01	—	538

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,140	3,140	0.30	0.04	—	3,158
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,140	3,140	0.30	0.04	—	3,158

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,136	3,136	0.30	0.04	—	3,154
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,136	3,136	0.30	0.04	—	3,154
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	519	519	0.05	0.01	—	523
Total	—	—	—	—	—	—	—	—	—	—	—	—	519	519	0.05	0.01	—	523

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Consumer Products	7.26	7.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.91	0.86	0.09	9.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.4	26.4	< 0.005	< 0.005	—	26.5
Total	8.75	8.70	0.09	9.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	126	126	0.01	< 0.005	—	127
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Consumer Products	7.26	7.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.84	7.84	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72

Consumer Products	1.33	1.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.08	0.08	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.15	2.15	< 0.005	< 0.005	—	2.16
Total	1.51	1.51	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.86	5.86	< 0.005	< 0.005	—	5.88

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Consumer Products	6.72	6.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100

Consumer Product	6.72	6.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72
Consumer Products	1.23	1.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.33	1.33	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.35	18.2	20.6	0.24	0.01	—	28.4
Total	—	—	—	—	—	—	—	—	—	—	—	2.35	18.2	20.6	0.24	0.01	—	28.4

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.35	12.2	14.5	0.24	0.01	—	22.3
Total	—	—	—	—	—	—	—	—	—	—	—	2.35	12.2	14.5	0.24	0.01	—	22.3

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Total	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Total	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Site Preparation	Site Preparation	2/13/2026	3/13/2026	5.00	20.0	—
Grading	Grading	3/14/2026	5/16/2026	5.00	45.0	—

Building Construction	Building Construction	5/17/2026	4/16/2028	5.00	500	—
Paving	Paving	4/17/2028	6/5/2028	5.00	35.0	—
Architectural Coating	Architectural Coating	6/6/2028	7/25/2028	5.00	35.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	6.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	62.6	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	18.6	6.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	6.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	12.5	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	6.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	62.6	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	18.6	6.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	6.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	12.5	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	687,083	229,028	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	30.0	0.00	—
Grading	—	—	135	0.00	—
Paving	0.00	0.00	0.00	0.00	1.92

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	1.92	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005
2028	0.00	532	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
Single Family Housing	1,643	1,660	1,488	592,367	13,711	13,856	12,418	4,944,690

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	1,643	1,660	1,488	592,367	13,711	13,856	12,418	4,944,690

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	87
No Fireplaces	87
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	87
No Fireplaces	87
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

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)
687082.5	229,028	0.00	0.00	—

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)
Single Family Housing	3,408,100	346	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)
Single Family Housing	3,305,898	346	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)
Single Family Housing	7,405,901	35,949,164

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	7,405,901	20,025,491

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	176	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	176	—

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
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

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

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

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	33.9	annual days of extreme heat
Extreme Precipitation	0.95	annual days with precipitation above 20 mm
Sea Level Rise	—	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	0	0	N/A
Drought	3	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	1	1	2
Drought	3	1	1	3
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	1	1	4

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	84.6
AQ-PM	97.4
AQ-DPM	26.6
Drinking Water	96.9
Lead Risk Housing	51.1
Pesticides	82.1
Toxic Releases	50.3
Traffic	19.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	98.0
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	23.9
Solid Waste	92.8
Sensitive Population	—
Asthma	71.3

Cardio-vascular	83.0
Low Birth Weights	43.8
Socioeconomic Factor Indicators	—
Education	89.1
Housing	2.99
Linguistic	88.1
Poverty	74.6
Unemployment	43.1

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	26.57513153
Employed	21.14718337
Median HI	40.93417169
Education	—
Bachelor's or higher	17.50288721
High school enrollment	100
Preschool enrollment	30.74554087
Transportation	—
Auto Access	75.69613756
Active commuting	66.90619787
Social	—
2-parent households	71.41023996
Voting	69.20313102
Neighborhood	—
Alcohol availability	90.51713076

Park access	11.08687283
Retail density	4.760682664
Supermarket access	10.63775183
Tree canopy	8.07134608
Housing	—
Homeownership	44.53997177
Housing habitability	72.34697806
Low-inc homeowner severe housing cost burden	65.63582702
Low-inc renter severe housing cost burden	94.52072373
Uncrowded housing	40.97266778
Health Outcomes	—
Insured adults	33.59425125
Arthritis	0.0
Asthma ER Admissions	21.4
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	30.3
Cognitively Disabled	35.0
Physically Disabled	57.4
Heart Attack ER Admissions	23.4
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	97.3

Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	12.4
Elderly	60.7
English Speaking	43.9
Foreign-born	50.6
Outdoor Workers	3.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.0
Traffic Density	33.2
Traffic Access	0.0
Other Indices	—
Hardship	75.7
Other Decision Support	—
2016 Voting	64.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	82.0
Healthy Places Index Score for Project Location (b)	35.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes

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

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	The Project Site is located within the City Limits and is adjacent to other urban land uses.
Characteristics: Utility Information	Electricity utility provider as stated in the site plan.
Land Use	Parcel acreage as per the Site Plan/APN map.
Construction: Construction Phases	No demolition phase as there are no existing structures on site.
Operations: Hearths	No wood stoves or gas powered fireplaces according to the site plan.
Operations: Energy Use	The development will not be connected to natural gas lines and will solely be powered by electricity. The energy use from natural gas was converted to kilowatts then added to the default kilowatt electricity demand to account for additional electricity usage.
Operations: Fleet Mix	The district accepted fleet mix data for the operational year (2029).

Technical Report

Health Risk Assessment
For California Environmental Quality Act (CEQA)

Project Name:

Santa Fe West Subdivision
Tulare, CA

Prepared for:

4Creeks, Inc.
Visalia, CA

Author:

Core Environmental Consulting
Clovis, CA

Lead Agency:

City of Tulare

Date of Preparation:

March 2025

CORE
ENVIRONMENTAL
CONSULTING

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1 Executive Summary

This technical report has been prepared to summarize the background, methodology, and results of a Health Risk Assessment (HRA) for the Santa Fe West Subdivision project (Project) in Tulare, California. The Project proposes construction of 174 single-family homes on the southeast corner of N. E Street and Zumwalt Avenue.

The Project is subject to the California Environmental Quality Act (CEQA), with City of Tulare (City) serving as the Lead Agency pursuant to the *CEQA Statute and Guidelines*[1] (CEQA Guidelines). An Initial Study is in progress and this HRA was completed to assess the potential significance of Toxic Air Contaminants (TAC) on nearby sensitive receptors.

The Project site is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD), which oversees the assessment of health risk associated with Toxic Air Contaminant (TAC) emissions from new development in the San Joaquin Valley Air Basin (SJVAB). SJVAPCD lays out a basic framework for understanding and assessing health risk, under CEQA, in its *Guidance for Assessing and Mitigating Air Quality Impacts*[2] (GAMAQI). Projects that would either place a new source of TAC in the vicinity of existing sensitive receptors, or would place new sensitive receptors in the vicinity of existing sources of TAC, must be assessed to determine whether the resulting health risk to sensitive receptors would exceed SJVAPCD established thresholds of significance for carcinogenic, acute, and chronic risk.

This HRA was prepared in accordance with the guidelines outlined in the Office of Environmental Health Hazard Assessment (OEHHA) *Guidance Manual for Preparation of Health Risk Assessments*[3], SJVAPCD Policy *APR 1906 – Framework for Performing Health Risk Assessments*[4], and SJVAPCD *Guidance for Air Dispersion Modeling*[5].

Construction health risk, associated with diesel particulate matter (DPM) emissions from construction vehicle and equipment use, was modeled using the USEPA *American Meteorological Society/EPA Regulatory model* (AERMOD) and CARB Hotspots Analysis and Reporting Program (HARP2) *Air Dispersion Modeling and Risk Tool*[6] (ADMRT).

Mitigation Measure HRA-1 (Tier 4 Engine Controls for Off-Road Equipment) was incorporated to ensure calculated risks remain less than significant. The calculated health risks for mitigated Project construction DPM are below the SJVAPCD thresholds of significance. Therefore, the Project would not expose sensitive receptors to substantial pollutant concentrations, and related impacts would be *less than significant with mitigation incorporated*.

[1] (Association of Environmental Professionals, 2025)
[2] (San Joaquin Valley Air Pollution Control District, 2015)
[3] (Office of Environmental Health Hazard Asssessment, 2015)
[4] (San Joaquin Valley Air Pollution Control District, 2020)
[5] (San Joaquin Valley Air Pollution Control District, 2022a)
[6] (California Air Resources Board, 2022a)

2 Project Description

The Project proposes to subdivide a 32.97-acre site in the western part of Tulare, on the southeast corner of N. E Street and Zumwalt Avenue, for 174 single-family homes. Infrastructure improvements would include pubic streets, utilities, and a temporary on-site stormwater basin. Approximately 2.36 acres would be dedicated to park space. The site, currently zoned R-1-8 (8,000 sq. ft. minimum lot size) and used as farmland, would be rezoned to R-1-5 (5,000 sq. ft. minimum lot area). Lot sizes would range from 5,000 sq. ft. to 15,091 sq. ft., with a gross density of 5.27 units per acre.

The development would provide street interconnectivity with existing residential areas to the west and address local housing needs.

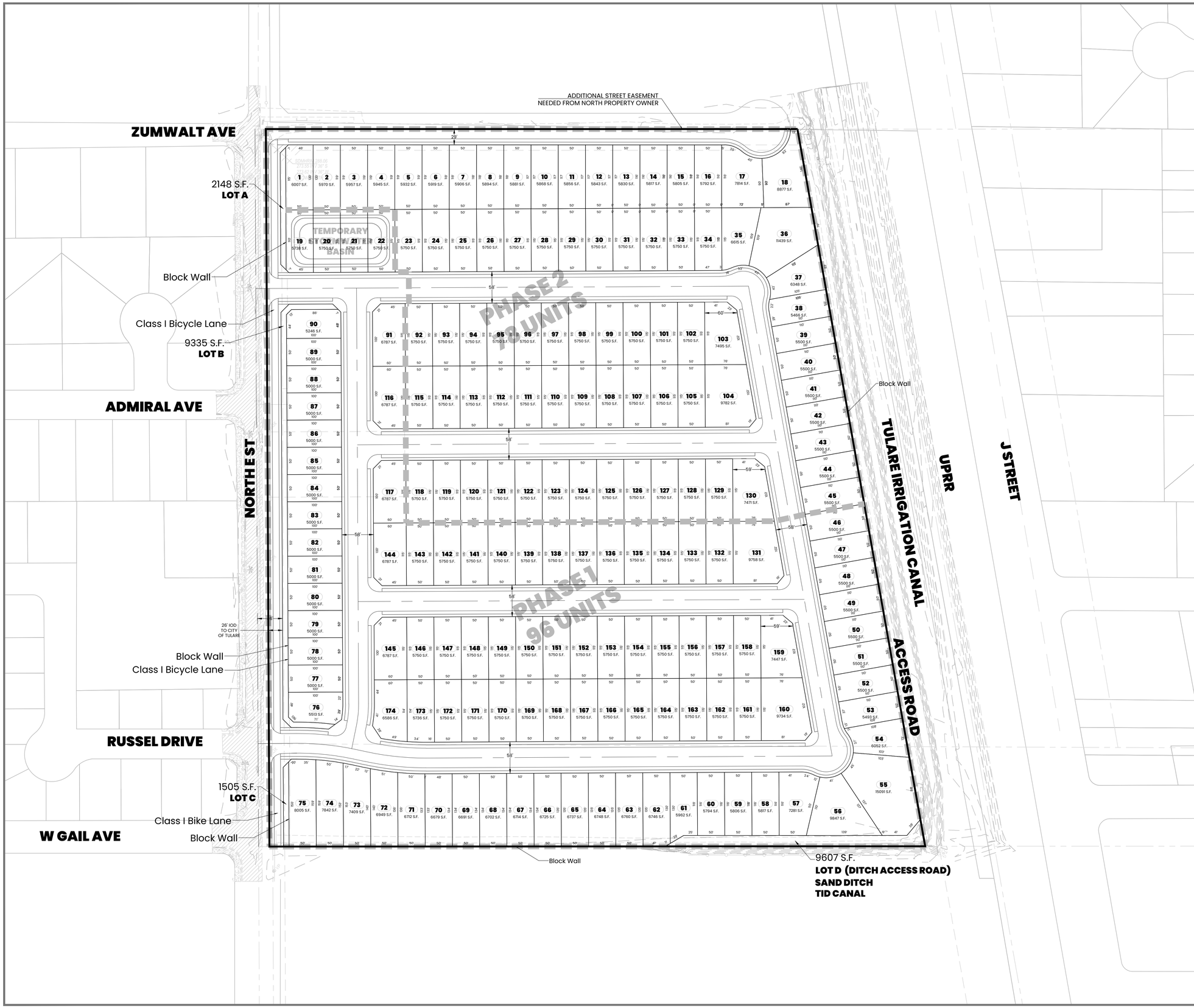
Surrounding land uses include:

- Agricultural to the north
- Residential to the west
- Educational (Los Tules Middle School) to the southwest
- Industrial to the south
- A combination of commercial and residential to the east, across the Tulare Irrigation Canal and the UPRR Railroad

According to the schedule included in the *California Emissions Estimator Model* (CalEEMod) analysis, construction is expected to last 2-3 years, potentially starting as early as January 2026 and finishing in July 2028.

A more detailed project description is provided in the Initial Study. A Vicinity Map and Tentative Subdivision Map are included below as Figure 1 and Figure 2, respectively.

CORE ENVIRONMENTAL CONSULTING Core Environmental Consulting Clovis, CA 93612 (559) 202-3941	PROJECT NAME **Santa Fe West Subdivision**	DATE **3/20/25**	SCALE **NOT TO SCALE**	**FIGURE 1** **VICINITY MAP**
	PROJECT NUMBER **24013**	DRAWN BY **JM**	LAT/LONG **36.231321, -119.355838**	



January 14, 2024

SANTA FE WEST SUBDIVISION

CONCEPT 3

BEING A PORTION OF PARCELS 8 AND 9, RECORDED IN BOOK 164 AT PAGE 100, TCR. OF PARCEL MAP 4798, RECORDED IN BOOK 103 OF MAPS, AT PAGE 28, TCR. LOCATED IN THE NORTHWEST $\frac{1}{4}$ OF THE SOUTHEAST $\frac{1}{4}$ OF SECTION 34, TOWNSHIP 19 SOUTH, RANGE 24 EAST, MDB&M, IN THE CITY OF TULARE, COUNTY OF TULARE, STATE OF CALIFORNIA

ENTITLEMENTS REQUIRED:

- TENTATIVE SUBDIVISION MAP
- GENERAL PLAN AMENDMENT

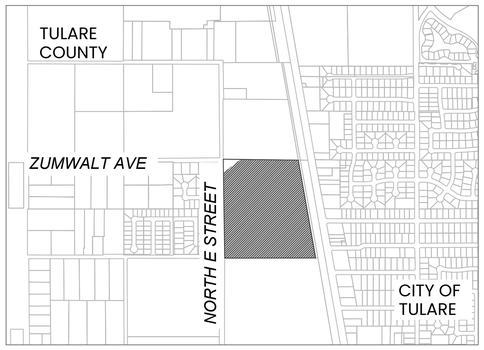
SITE INFORMATION:

APN:	164-100-008, 009
TOTAL AREA:	±32.97 AC. (GROSS)
FLOOD ZONE:	N/A
JURISDICTION:	CITY OF TULARE
EXISTING ZONING:	R-1-8, R-1-12
PROPOSED ZONING:	R-1-5 (OR R-1-4)*
EXISTING GENERAL PLAN:	LOW DENSITY RESIDENTIAL
PROPOSED GENERAL PLAN:	LOW DENSITY RESIDENTIAL
EXISTING USE:	VACANT
PROPOSED USE:	SINGLE-FAMILY RESIDENTIAL (174 lots)

UTILITIES:

SEWER SERVICE:	CITY OF TULARE
WATER SERVICE:	CITY OF TULARE
STORMWATER:	CITY OF TULARE (WITH TEMPORARY ON-SITE STORMWATER BASIN)
GAS SERVICE:	SOUTHERN CALIFORNIA GAS
ELEC. SERVICE:	SOUTHERN CALIFORNIA EDISON
REFUSE SERVICE:	CITY OF TULARE

*PROPOSED ZONING IS DEPENDANT ON OUTCOME OF ZONING ORDINANCE LITIGATION



VICINITY MAP

NORTH

80' 0' 80'

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3 Health Risk Assessment Setting

3.1 San Joaquin Valley Air Pollution Control District

The Project is located in the San Joaquin Valley Air Basin (SJVAB), which consists of eight counties: Fresno, Kern (western and central), Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. Air pollution in the SJVAB can be attributed to both human-related (anthropogenic) and natural (biogenic) activities that produce emissions.

Area and stationary sources within SJVAB are under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). An overview of important air pollutants, and SJVPACD roles in controlling them, is provided in the SJVAPCD *Guidance for Assessing and Mitigating Air Quality Impacts*[7] (GAMAQI), along with in-depth discussions on the meteorology and geography that contribute to unhealthy levels of air pollution. This HRA focuses on Toxic Air Contaminants (TAC).

Toxic Air Contaminants (TAC), as defined by the California Health & Safety Code (CH&SC) §44321, are listed in Appendices AI and AII in AB 2588 Air Toxic "Hot Spots" and Assessment Act's Emissions Inventory Criteria and Guideline Regulation document. Potential health impacts from TACs are generally categorized into two groups: carcinogenic (cancer causing) effects and non-carcinogenic (non-cancer-causing) effects.

The non-carcinogenic effects can be further divided into long-term (chronic) health effects such as birth defects, neurological damage, or genetic damage; and short- term (acute) effects such as eye irritation, respiratory irritation, and nausea. The California TAC list identifies about 700 plus pollutants. Carcinogenic and/or non-carcinogenic toxicity criteria have been established for a subset of these pollutants by OEHHA, as required by CH&SC §44360. TACs used in determining the potential exposure to the public should not be confused with the 189 Hazardous Air Pollutants (HAP) listed in the Clean Air Act.

SJVAPCD oversees the assessment of health risk associated with TAC emissions from new development in the SJVAB. SJVAPCD lays out a basic framework for understanding and assessing health risk, under CEQA, in the GAMAQI.

The location of a development project is a major factor in determining whether the project will result in localized air quality impacts. The potential for adverse air quality impacts increases as the distance between the source of emissions and receptors decreases. Receptors include sensitive receptors and worker receptors. Sensitive receptors refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses where sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (these sensitive land uses may also be referred to as sensitive receptors). Worker receptors refer to employees and locations where people work. Impacts on sensitive receptors are of particular concern, because they are the people most vulnerable to the effects of air pollution.

[7] (San Joaquin Valley Air Pollution Control District, 2015)

From a health risk perspective there are two types of land use projects that have the potential to cause long-term public health risk impacts:

Type A Projects: Land use projects that will place new toxic sources in the vicinity of existing receptors.

Type B Projects: Land use projects that will place new receptors in the vicinity of existing toxics sources.

Projects of either type must be assessed to determine whether the resulting health risk to sensitive receptors would exceed SJVAPCD established thresholds of significance for carcinogenic, non-carcinogenic acute, and non-carcinogenic chronic risk.

The OEHHA *Risk Assessment Guidelines* are the standards for estimating health risks. OEHHA is responsible for developing and providing toxicological and medical information relevant to decisions involving public health to state and local government agencies. Historically, state laws have required OEHHA to develop Risk Assessment Guidelines for estimating health risk associated with various sources of air pollution. Furthermore, the Children's Environmental Health Protection Act (SB 25, Escutia, 1999) requires OEHHA to biennially review risk assessment methods for air toxics, and related information, to ensure that they adequately protect infants and children.

The SJVAPCD risk management policy works in conjunction with the OEHHA *Risk Assessment Guidelines*. The SJVAPCD risk management policy further clarifies and provides guidance on the appropriate options to use, such as a longer exposure period and more conservative air dispersion modeling.

SJVAPCD staff members are considered leading statewide experts in the field of health risk assessment and have developed significant resources from guidance documents to database tools to assist other agencies, consultants, and regulated sources. Therefore, the SJVAPCD concludes that use of its risk management policy and the OEHHA *Risk Assessment Guidelines* is appropriate in determining significance within the environmental review process.

3.2 Diesel Particulate Matter[8]

As described in Section 4 (HRA Methodology), the Project could be a substantial source of Diesel Particulate Matter (DPM) during construction.

DPM is the particulate component of diesel exhaust and has been identified as a TAC by the California Air Resources Board (CARB) based on its potential exposures and health concerns. Epidemiological studies strongly suggest a relationship between occupational diesel exhaust exposure and lung cancer. A number of adverse acute and chronic effects have also been associated with exposure to diesel exhaust.[9] OEHHA evaluated over 30 human epidemiological studies on the carcinogenic effects of diesel exhaust. These studies found that long-term occupational exposures to diesel exhaust were associated with a 40 percent increase, on average, in the relative risk of lung cancer. These epidemiological studies strongly suggest a causal relationship between occupational diesel exhaust exposure and lung cancer.

[8] (California Air Pollution Control Officers Association, 2024)
[9] (California Air Resources Board, 2024)

Adverse long-term noncancer effects have been associated with exposure to diesel exhaust. Occupational studies have shown that there may be a greater incidence of cough, phlegm and chronic bronchitis among those exposed to diesel exhaust than among those not exposed. Reductions in pulmonary function have also been reported following occupational exposures in chronic studies.

Adverse short-term health effects have also been associated with exposures to diesel exhaust. Occupational exposures to DPM have been associated with significant cross-shift decreases in lung function. Increased cough, labored breathing, chest tightness, and wheezing have been associated with exposure to diesel exhaust in bus garage workers. A significant increase in airway resistance and increases in eye and nasal irritation were observed in human volunteers following one-hour chamber exposure to diesel exhaust.

3.3 Thresholds of Significance

This HRA focuses on answering the following question from the Air Quality section of Appendix G in the *CEQA Guidelines*[10]:

3. Would the Project expose sensitive receptors to substantial pollutant concentrations?

The *CEQA Guidelines* state that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make a significance determination.

SJVAPCD has established the following thresholds of significance for risk exposure to TAC:

Table 1 SJVPACD Thresholds of Significance – Toxic Air Contaminants

CARCINOGENS	Maximally Exposed Individual risk equals or exceeds 20 in one million
NON CARCINOGENS	**Acute**: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual
	Chronic: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual

Source: (San Joaquin Valley Air Pollution Control District, 2015)

Therefore, if the calculated risk exposure from Project TAC emissions is below the SJVAPCD thresholds of significance, it can be concluded that the Project would not expose sensitive receptors to substantial pollutant concentrations and this impact would be considered less than significant under CEQA.

[10] (Association of Environmental Professionals, 2025)

4 HRA Methodology

The Project could result in toxic air contaminant (TAC) emissions during construction. The primary TAC emissions resulting from Project construction would include diesel particulate matter (DPM), exhausted during the operation of on- and-off road diesel-fueled vehicles and equipment.

The Project would develop a residential subdivision. Once operational, diesel-fueled vehicle and equipment use would occur rarely if at all. Operation would not include any substantial sources of DPM or other TAC.

Because there are no other substantial sources of TAC expected, during construction or operation, modeling and calculations were performed for construction DPM.

Health risk from Project TAC emissions was evaluated in the following steps:

1. Estimated DPM Emissions. Project air pollutant emissions were estimated using the *California Emissions Estimator Model*[11] (CalEEMod) (Version 2022.1.1.29). SJVAPCD considers exhaust particulate matter 2.5 microns and smaller (PM2.5) to be a reasonable surrogate for DPM, and the maximum (worst year) annual construction emissions were used for subsequent modeling and calculation (described below). Project-specific information was used where available; CalEEMod defaults were used for all other inputs. Mitigation Measure HRA-1 (Tier 4 engine controls for off-road diesel-fueled equipment and vehicles during construction) was incorporated; see Section 5.3 Mitigation for additional explanation and Appendix A for CalEEMod results. Other mitigation measures were incorporated prior to this HRA, within the analysis that was provided by 4Creeks, Inc.; those measures were included in the CalEEMod analysis for this HRA but were not added as mitigation measures in this report because they were assumed to be the baseline for this analysis and were not identified for the purpose of directly reducing a potentially-significant health risk impact to a less-than-significant level. All mitigation measures are listed in Appendix A CalEEMod Results and described in the Initial Study.
2. Modeled air dispersion. The United States Environmental Protection Agency's (U.S. EPA) *American Meteorological Society/EPA Regulatory Model* (AERMOD) air dispersion model was used to model the annual downwind air concentration at nearby receptors, based on a normalized emission rate of one gram per second. Meteorological data were obtained from SJVAPCD (Visalia met site), along with required modeling parameters. Terrain was incorporated using the built-in WebGIS tool. Sensitive receptors include nearby residences to the west and east, along with a school to the southwest. A total of 101 receptors (resident and worker) were selected for a representative analysis, within a modeling domain radius of 1 kilometer.
3. Calculated Risk. Normalized downwind air concentrations for each receptor (modeled in the step above) were imported into the CARB Hotspots Analysis and Reporting Program (HARP2) *Air Dispersion Modeling and Risk Tool*[12] (ADMRT) and combined with the toxic emissions data (DPM emissions from the CalEEMod step described above) to estimate the ground level concentrations of DPM at each receptor. Cancer risk and chronic hazard index (HI) were calculated in ADMRT using SJVAPCD-required exposure parameters and Project information. OEHHA has not established a Reference Exposure Level (REL) for 8-hour chronic, or acute health risk from DPM.

[11] (California Air Pollution Control Officers Association, 2022)
[12] (California Air Resources Board, 2022a)

Thus, the 8-hour chronic and acute HI are not calculated for HRA where the only substantial TAC is DPM, except in unusual situations such as when a sensitive receptor is located directly above the emission release point (e.g., on a hillside or in a multistory apartment building).[13]

Results of the AERMOD modeling and ADMRT calculations are attached in Appendix B and Appendix C, respectively, along with a map of receptors. Modeling input and output files will be made available to reviewing agencies upon request.

[13] (California Air Resources Board, 2024)

5 HRA Results

5.1 Health Risk from Construction

Project construction could expose sensitive receptors to Toxic Air Contaminants (TAC), including Diesel Particulate Matter (DPM) exhausted during the operation of on- and off-road diesel-fueled vehicles and equipment.

The CalEEMod results (Appendix A) show that maximum annual construction emissions of PM2.5 exhaust, which is considered a surrogate for DPM, would be 0.01 metric tons per year (MT/yr), or approximately 22 pounds per year (lb/yr). The exposure period for sensitive receptors would be the construction duration of approximately 3 years (rounded up from 2.5 years).

Results of the construction health risk assessment are compared to SJVAPCD thresholds of significance in the table below. The highest risk occurred at Receptor 9, an industrial facility located approximately 26 meters south of the Project site perimeter. Receptor 9 is a worker receptor, and would therefore be evaluated assuming less hours of exposure per day and therefore lower risk. However, the residential receptors located similar distances from the western side and northwest corner of the Project site (receptors 1, 2, 3, and 4) would be exposed to similar maximum risk levels. Thus, the highest risk of any receptor (Receptor 9) was presented in the table below to show a worst-case scenario. Carcinogenic risk and Chronic Hazard Index for each receptor are shown in Appendix C HARP2 ADMRT Results.

Table 2 HRA Results Compared to SJVAPCD Thresholds of Significance

RISK	CARCINOGEN (risk in one million)	CHRONIC HAZARD INDEX
Construction	3.59	0.0019
Thresholds of Significance	20	1

Notes: *Calculation based on mitigated emissions. Hazard indices are for Maximally Exposed Individuals. No HI was calculated for 8-hour Chronic or Acute risk because OEHHA has not established REL.* (California Air Resources Board, 2024)

Sources: *Appendix C HARP2 ADMRT Results*

As shown in the Table above, construction risk would be below the SJVAPCD Thresholds of Significance, with incorporation of Mitigation Measure HRA-1 (described in Section 5.3 below). Therefore, consistent with the *CEQA Guidelines*[14], the Project would not expose sensitive receptors to substantial pollutant concentrations, and this impact would be considered ***less than significant with mitigation incorporated***.

5.2 Health Risk from Operation

The Project would develop a residential subdivision. Once operational, diesel-fueled vehicle and equipment use would occur rarely if at all. Operation would not include any substantial sources of DPM or other TAC. Therefore, the Project would not expose sensitive receptors to substantial pollutant concentrations, and this impact would be considered ***less than significant***.

[14] (Association of Environmental Professionals, 2025)

5.3 Mitigation

Modeling the unmitigated DPM emissions resulted in risk estimates that could exceed the SJVAPCD threshold of significance for carcinogens. Implementation of the following Mitigation Measure HRA-1 would reduce DPM emissions to a level that results in carcinogenic risk below the SJVAPCD threshold of significance.

> ***Mitigation Measure HRA-1:*** *Implement Tier 4 (Final) Engine Controls for all off-road, diesel-fueled equipment during construction*.

According to the CalEEMod and AERMOD/ADMRT analyses, implementation of Mitigation Measure HRA-1 would reduce annual construction PM2.5 exhaust emissions by approximately 84%. The resulting carcinogenic risk would be lower than the SJVAPCD threshold of significance. Therefore, with implementation of Mitigation Measure HRA-1, impacts would be ***less than significant with mitigation incorporated***.

Unlike Tier 1 through Tier 3 engine controls, Tier 4 generally requires the addition of emissions control equipment even to new engines, such as a Diesel Particulate Filter (DPF).[15] The construction contractor(s) may decide implementation is not technically or economically feasible. Initial modeling indicated that only a 8% reduction in DPM emissions was required to keep cancer risk below the threshold of significance.

Tier 4 engine controls would achieve a greater reduction (84% for the inputs modeled) and were selected as a health-conservative risk reduction measure to ensure that health risk would likely remain below the threshold even if slightly higher emissions of DPM are produced.

Other measures were considered (lower-tier engine controls; Construction Clean Fleet), but were either not effective enough to achieve the required emissions reduction without also including Tier 4 controls (or component equipment such as diesel particulate filters, oxidative catalysts, etc.), or likely to be equally burdensome to the contractor(s) and agencies responsible for verifying. There are still a wide variety of alternative measures that could be selected and combined to achieve the required reduction, including but not limited to the following relevant options:

- **Electrification and/or Hybridization.** The construction contractor(s) could replace diesel-fueled equipment with electric and/or hybrid options.
- **Less diesel-fueled equipment and/or less operating hours.** The construction contractor(s) could require less equipment and/or less operating hours than included in the health-conservative CalEEMod default assumptions.
- **Use Newer Equipment.** Similar to the option above, the construction contractor(s) could use newer equipment than included in the CalEEMod analysis.

If a different option is selected that Mitigation Measure HRA-1, an updated HRA should be performed, and reviewed by the Lead Agency (City), to demonstrate that risks would remain below the thresholds of

[15] (California Air Pollution Control Officers Association, 2024)

significance. Risk is directly proportionate to maximum annual emissions, thus the modeling performed for this HRA indicates that annual construction PM2.5 exhaust emissions must stay below 0.056 MT/yr, with an exposure period of no more than three years, for the carcinogenic risk to remain below the threshold of significance without any other changes.

The mitigation measure should be inserted into the construction specifications included with bid documents, along with a requirement to submit regular reports to the Lead Agency. Contractor will be made responsible for implementing the Tier 4 Engine controls and submitting monthly reports to Lead Agency demonstrating that all applicable equipment had Tier 4 Engine Controls installed prior to and throughout operation on the Project site, including a list of applicable equipment and the specific controls meeting Tier 4 requirements. Contractor will also be required to submit a verification, to the Lead Agency, prior to start of construction, confirming its understanding of the mitigation measure and monitoring requirement. Lead Agency will review monthly reports and confirm implementation. Any implementation failure will be considered a breach of contract and will require the Contractor to halt construction until the mitigation measure has been implemented and provide an appropriate remedy, with examples including paying for additional analyses to determine the impacts resulting from the lack of implementation, and/or payment of off-site mitigation fees to SJVAPCD to fund equivalent mitigations. Upon completion of construction, within sixty (60) days, Lead Agency will submit a verification statement to SJVAPCD confirming that the mitigation measure was implemented throughout construction for all applicable equipment.

Other mitigation measures were incorporated prior to this HRA, within the analysis that was provided by 4Creeks, Inc.; those measures were included in the CalEEMod analysis for this HRA but were not added as mitigation measures in this report because they were assumed to be the baseline for this analysis and were not identified for the purpose of directly reducing a potentially-significant health risk impact to a less-than-significant level. All mitigation measures are listed in Appendix A CalEEMod Results and described in the Initial Study, and monitoring and reporting is detailed in the Initial Study where applicable.

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Appendix A. CalEEMod Results

Original Prepared by 4Creeks, Inc.:

February 2025

Revised Prepared by Core Environmental Consulting (Attached):

Jesse Madsen, Owner, Principal Environmental Scientist
Clovis, CA

March 2025

Santa Fe West Subdivision Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Santa Fe West Subdivision
Construction Start Date	1/1/2026
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	24.4
Location	36.231386213082885, -119.35604588659939
County	Tulare
City	Tulare
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2742
EDFZ	9
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

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
Single Family Housing	174	Dwelling Unit	33.0	339,300	2,038,037	—	588	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-C	Water Unpaved Construction Roads
Transportation	T-32*	Orient Project Toward Transit, Bicycle, or Pedestrian Facility
Transportation	T-33*	Locate Project near Bike Path/Bike Lane
Transportation	T-34*	Provide Bike Parking
Transportation	T-35*	Provide Tra c Calming Measures
Energy	E-2	Require Energy Efficient Appliances
Energy	E-12-B	Install Electric Space Heater in Place of Natural Gas Heaters in Residences
Energy	E-13	Install Electric Ranges in Place of Gas Ranges
Energy	E-15	Require All-Electric Development
Water	W-5	Design Water-Efficient Landscapes
Area Sources	AS-1	Use Low-VOC Cleaning Supplies
Area Sources	LL-1	Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment
Area Sources	AS-2	Use Low-VOC Paints

* 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.	60.9	60.8	27.3	28.4	0.06	1.12	3.70	4.82	1.03	1.45	2.48	—	6,717	6,717	0.28	0.09	2.28	6,741

Mit.	60.8	60.8	4.48	36.2	0.06	0.12	3.70	3.82	0.12	1.45	1.57	—	6,717	6,717	0.28	0.09	2.28	6,741
% Reduced	< 0.5%	< 0.5%	84%	-27%	—	89%	—	21%	88%	—	37%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.82	3.22	29.2	29.4	0.06	1.24	7.76	9.00	1.14	3.96	5.11	—	6,703	6,703	0.28	0.09	0.06	6,728
Mit.	0.73	0.72	4.50	36.0	0.06	0.12	7.76	7.86	0.12	3.96	4.06	—	6,703	6,703	0.28	0.09	0.06	6,728
% Reduced	81%	78%	85%	-23%	—	90%	—	13%	89%	—	20%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.23	6.17	9.72	12.0	0.02	0.38	1.08	1.46	0.35	0.44	0.79	—	2,525	2,525	0.10	0.07	0.63	2,543
Mit.	5.98	5.97	2.52	13.8	0.02	0.06	1.08	1.14	0.06	0.44	0.50	—	2,525	2,525	0.10	0.07	0.63	2,543
% Reduced	4%	3%	74%	-15%	—	85%	—	22%	84%	—	37%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.14	1.13	1.77	2.19	< 0.005	0.07	0.20	0.27	0.06	0.08	0.14	—	418	418	0.02	0.01	0.10	421
Mit.	1.09	1.09	0.46	2.51	< 0.005	0.01	0.20	0.21	0.01	0.08	0.09	—	418	418	0.02	0.01	0.10	421
% Reduced	4%	3%	74%	-15%	—	85%	—	22%	84%	—	37%	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.73	3.14	27.3	28.4	0.06	1.12	3.70	4.82	1.03	1.45	2.48	—	6,717	6,717	0.28	0.09	2.28	6,741
2027	1.56	1.33	10.1	15.7	0.03	0.34	0.45	0.79	0.32	0.11	0.42	—	3,144	3,144	0.13	0.09	2.05	3,177

2028	60.9	60.8	9.56	15.5	0.03	0.31	0.45	0.75	0.28	0.11	0.39	—	3,127	3,127	0.13	0.09	1.83	3,159
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.82	3.22	29.2	29.4	0.06	1.24	7.76	9.00	1.14	3.96	5.11	—	6,703	6,703	0.28	0.09	0.06	6,728
2027	1.52	1.29	10.1	15.1	0.03	0.34	0.45	0.79	0.32	0.11	0.42	—	3,102	3,102	0.12	0.09	0.05	3,134
2028	1.46	1.24	9.63	15.0	0.03	0.31	0.45	0.75	0.28	0.11	0.39	—	3,087	3,087	0.12	0.09	0.05	3,118
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.38	1.17	9.72	12.0	0.02	0.38	1.08	1.46	0.35	0.44	0.79	—	2,525	2,525	0.10	0.05	0.47	2,543
2027	1.09	0.93	7.22	10.8	0.02	0.24	0.31	0.56	0.23	0.08	0.30	—	2,224	2,224	0.09	0.07	0.63	2,247
2028	6.23	6.17	2.73	4.28	0.01	0.09	0.11	0.20	0.08	0.03	0.11	—	820	820	0.03	0.02	0.19	828
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.25	0.21	1.77	2.19	< 0.005	0.07	0.20	0.27	0.06	0.08	0.14	—	418	418	0.02	0.01	0.08	421
2027	0.20	0.17	1.32	1.98	< 0.005	0.04	0.06	0.10	0.04	0.01	0.06	—	368	368	0.02	0.01	0.10	372
2028	1.14	1.13	0.50	0.78	< 0.005	0.02	0.02	0.04	0.02	< 0.005	0.02	—	136	136	0.01	< 0.005	0.03	137

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.74	0.74	4.48	36.2	0.06	0.12	3.70	3.82	0.12	1.45	1.57	—	6,717	6,717	0.28	0.09	2.28	6,741
2027	0.68	0.63	3.49	17.5	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,144	3,144	0.13	0.09	2.05	3,177
2028	60.8	60.8	3.45	17.3	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,127	3,127	0.13	0.09	1.83	3,159
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.73	0.72	4.50	36.0	0.06	0.12	7.76	7.86	0.12	3.96	4.06	—	6,703	6,703	0.28	0.09	0.06	6,728
2027	0.64	0.59	3.56	17.0	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,102	3,102	0.12	0.09	0.05	3,134

2028	0.62	0.58	3.52	16.8	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,087	3,087	0.12	0.09	0.05	3,118
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.42	0.40	2.30	13.8	0.02	0.06	1.08	1.14	0.06	0.44	0.50	—	2,525	2,525	0.10	0.05	0.47	2,543
2027	0.46	0.42	2.52	12.2	0.02	0.06	0.31	0.37	0.06	0.08	0.13	—	2,224	2,224	0.09	0.07	0.63	2,247
2028	5.98	5.97	0.98	4.73	0.01	0.02	0.11	0.13	0.02	0.03	0.04	—	820	820	0.03	0.02	0.19	828
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.08	0.07	0.42	2.51	< 0.005	0.01	0.20	0.21	0.01	0.08	0.09	—	418	418	0.02	0.01	0.08	421
2027	0.08	0.08	0.46	2.22	< 0.005	0.01	0.06	0.07	0.01	0.01	0.02	—	368	368	0.02	0.01	0.10	372
2028	1.09	1.09	0.18	0.86	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	136	136	0.01	< 0.005	0.03	137

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.	15.1	14.5	4.62	61.1	0.10	0.07	9.76	9.83	0.07	2.47	2.54	109	14,182	14,291	11.7	0.55	33.8	14,782
Mit.	13.6	13.1	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	109	14,027	14,135	11.7	0.55	33.8	14,626
% Reduced	10%	10%	2%	16%	—	7%	—	< 0.5%	5%	—	< 0.5%	—	1%	1%	< 0.5%	< 0.5%	—	1%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.4	12.9	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	13,086	13,195	11.8	0.60	3.24	13,671
Mit.	12.9	12.4	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	12,953	13,061	11.8	0.59	3.24	13,536
% Reduced	4%	4%	—	—	—	—	—	—	—	—	—	—	1%	1%	< 0.5%	< 0.5%	—	1%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	13.8	13.3	4.85	45.8	0.10	0.07	9.39	9.45	0.06	2.38	2.44	109	13,107	13,215	11.8	0.56	15.7	13,692
Mit.	12.8	12.4	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	109	12,962	13,071	11.7	0.56	15.7	13,547
% Reduced	7%	7%	1%	11%	—	3%	—	< 0.5%	3%	—	< 0.5%	—	1%	1%	< 0.5%	< 0.5%	—	1%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.53	2.44	0.89	8.36	0.02	0.01	1.71	1.73	0.01	0.43	0.45	18.0	2,170	2,188	1.95	0.09	2.59	2,267
Mit.	2.34	2.26	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	18.0	2,146	2,164	1.94	0.09	2.59	2,243
% Reduced	7%	7%	1%	11%	< 0.5%	3%	—	< 0.5%	3%	—	< 0.5%	—	1%	1%	< 0.5%	< 0.5%	—	1%

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	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Area	8.75	8.70	0.09	9.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	126	126	0.01	< 0.005	—	127
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,233	3,233	0.31	0.04	—	3,251
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	15.1	14.5	4.62	61.1	0.10	0.07	9.76	9.83	0.07	2.47	2.54	109	14,182	14,291	11.7	0.55	33.8	14,782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Area	7.84	7.84	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,233	3,233	0.31	0.04	—	3,251
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172

Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	13.4	12.9	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	13,086	13,195	11.8	0.60	3.24	13,671
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.55	5.08	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	—	9,729	9,729	0.52	0.49	13.2	9,900
Area	8.29	8.27	0.05	4.88	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	35.4	35.4	< 0.005	< 0.005	—	35.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,233	3,233	0.31	0.04	—	3,251
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	13.8	13.3	4.85	45.8	0.10	0.07	9.39	9.45	0.06	2.38	2.44	109	13,107	13,215	11.8	0.56	15.7	13,692
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Area	1.51	1.51	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.86	5.86	< 0.005	< 0.005	—	5.88
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	535	535	0.05	0.01	—	538
Water	—	—	—	—	—	—	—	—	—	—	—	2.35	18.2	20.6	0.24	0.01	—	28.4
Waste	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	2.53	2.44	0.89	8.36	0.02	0.01	1.71	1.73	0.01	0.43	0.45	18.0	2,170	2,188	1.95	0.09	2.59	2,267

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	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Area	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,140	3,140	0.30	0.04	—	3,158
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	13.6	13.1	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	109	14,027	14,135	11.7	0.55	33.8	14,626
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Area	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,136	3,136	0.30	0.04	—	3,154
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	12.9	12.4	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	12,953	13,061	11.8	0.59	3.24	13,536
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.55	5.08	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	—	9,729	9,729	0.52	0.49	13.2	9,900
Area	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	22.3	22.3	< 0.005	< 0.005	—	22.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,138	3,138	0.30	0.04	—	3,156
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	12.8	12.4	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	109	12,962	13,071	11.7	0.56	15.7	13,547
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Area	1.33	1.33	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	519	519	0.05	0.01	—	523
Water	—	—	—	—	—	—	—	—	—	—	—	2.35	12.2	14.5	0.24	0.01	—	22.3

Waste	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	2.34	2.26	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	18.0	2,146	2,164	1.94	0.09	2.59	2,243

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.17	1.60	1.58	< 0.005	0.07	—	0.07	0.06	—	0.06	—	290	290	0.01	< 0.005	—	291

Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.1	48.1	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.5	91.5	0.01	< 0.005	0.01	93.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	—	5.20	5.20	< 0.005	< 0.005	0.01	5.29
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	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.88

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.14	1.55	< 0.005	0.01	—	0.01	0.01	—	0.01	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	48.1	48.1	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.5	91.5	0.01	< 0.005	0.01	93.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	—	5.20	5.20	< 0.005	< 0.005	0.01	5.29
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	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	3.36	3.40	0.01	0.14	—	0.14	0.13	—	0.13	—	814	814	0.03	0.01	—	816

Dust From Material Movement	—	—	—	—	—	—	0.44	0.44	—	0.18	0.18	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.61	0.62	< 0.005	0.03	—	0.03	0.02	—	0.02	—	135	135	0.01	< 0.005	—	135
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.11	0.10	0.05	0.88	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	118	118	0.01	0.01	0.42	120
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.69	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	105	105	0.01	0.01	0.01	106
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	0.01	0.01	0.01	0.09	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.4	13.4	< 0.005	< 0.005	0.02	13.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.21	2.21	< 0.005	< 0.005	< 0.005	2.25
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

3.4. Grading (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	0.55	4.36	0.01	0.02	—	0.02	0.02	—	0.02	—	814	814	0.03	0.01	—	816
Dust From Material Movement	—	—	—	—	—	—	0.44	0.44	—	0.18	0.18	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.80	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	135	135	0.01	< 0.005	—	135
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.11	0.10	0.05	0.88	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	118	118	0.01	0.01	0.42	120
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.69	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	105	105	0.01	0.01	0.01	106

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	0.01	0.01	0.01	0.09	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.4	13.4	< 0.005	< 0.005	0.02	13.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.21	2.21	< 0.005	< 0.005	< 0.005	2.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	0.48	4.42	5.81	0.01	0.17	—	0.17	0.16	—	0.16	—	1,074	1,074	0.04	0.01	—	1,078
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.81	1.06	< 0.005	0.03	—	0.03	0.03	—	0.03	—	178	178	0.01	< 0.005	—	178
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.33	0.31	0.17	2.75	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	370	370	0.02	0.02	1.32	377
Vendor	0.02	0.02	0.54	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	392	392	0.01	0.06	0.96	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.29	0.26	0.22	2.16	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	327	327	0.03	0.02	0.03	333
Vendor	0.02	0.01	0.58	0.21	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	393	393	0.01	0.06	0.03	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.13	0.13	0.09	1.00	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	152	152	0.01	0.01	0.25	155
Vendor	0.01	0.01	0.25	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	176	176	< 0.005	0.03	0.19	184

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.2	25.2	< 0.005	< 0.005	0.04	25.6
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.1	29.1	< 0.005	< 0.005	0.03	30.5
Hauling	0.00	0.00	0.00	0.00	0.00	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. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.15	1.26	6.64	0.01	0.03	—	0.03	0.03	—	0.03	—	1,074	1,074	0.04	0.01	—	1,078

Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.03	0.03	0.23	1.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	178	178	0.01	< 0.005	—	178
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.33	0.31	0.17	2.75	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	370	370	0.02	0.02	1.32	377
Vendor	0.02	0.02	0.54	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	392	392	0.01	0.06	0.96	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.29	0.26	0.22	2.16	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	327	327	0.03	0.02	0.03	333
Vendor	0.02	0.01	0.58	0.21	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	393	393	0.01	0.06	0.03	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.13	0.13	0.09	1.00	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	152	152	0.01	0.01	0.25	155
Vendor	0.01	0.01	0.25	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	176	176	< 0.005	0.03	0.19	184
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.2	25.2	< 0.005	< 0.005	0.04	25.6
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.1	29.1	< 0.005	< 0.005	0.03	30.5
Hauling	0.00	0.00	0.00	0.00	0.00	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. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.71	9.24	0.02	0.24	—	0.24	0.22	—	0.22	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	1.22	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	283	283	0.01	< 0.005	—	284

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31	0.28	0.15	2.53	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	362	362	0.02	0.02	1.19	369
Vendor	0.02	0.02	0.52	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	384	384	0.01	0.06	0.86	403
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.27	0.25	0.19	1.98	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	321	321	0.02	0.02	0.03	326
Vendor	0.02	0.01	0.55	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	385	385	0.01	0.06	0.02	402
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.19	0.18	0.13	1.46	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	238	238	0.02	0.01	0.37	242
Vendor	0.02	0.01	0.38	0.14	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	275	275	0.01	0.04	0.26	287
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.04	0.03	0.02	0.27	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.3	39.3	< 0.005	< 0.005	0.06	40.0
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	45.4	45.4	< 0.005	0.01	0.04	47.6
Hauling	0.00	0.00	0.00	0.00	0.00	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. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.23	2.01	10.6	0.02	0.05	—	0.05	0.05	—	0.05	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.37	1.93	< 0.005	0.01	—	0.01	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.31	0.28	0.15	2.53	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	362	362	0.02	0.02	1.19	369
Vendor	0.02	0.02	0.52	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	384	384	0.01	0.06	0.86	403
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.27	0.25	0.19	1.98	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	321	321	0.02	0.02	0.03	326
Vendor	0.02	0.01	0.55	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	385	385	0.01	0.06	0.02	402
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.19	0.18	0.13	1.46	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	238	238	0.02	0.01	0.37	242
Vendor	0.02	0.01	0.38	0.14	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	275	275	0.01	0.04	0.26	287
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.04	0.03	0.02	0.27	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.3	39.3	< 0.005	< 0.005	0.06	40.0
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	45.4	45.4	< 0.005	0.01	0.04	47.6
Hauling	0.00	0.00	0.00	0.00	0.00	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 (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.87	2.71	< 0.005	0.06	—	0.06	0.06	—	0.06	—	502	502	0.02	< 0.005	—	504
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.05	0.04	0.34	0.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	83.1	83.1	< 0.005	< 0.005	—	83.4
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	0.28	0.27	0.14	2.33	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	355	355	0.02	0.01	1.08	361
Vendor	0.02	0.01	0.50	0.18	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.76	393
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.25	0.24	0.18	1.83	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	314	314	0.01	0.02	0.03	320
Vendor	0.02	0.01	0.53	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.02	392
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.05	0.05	0.03	0.40	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	68.3	68.3	< 0.005	< 0.005	0.10	69.5
Vendor	< 0.005	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.5	78.5	< 0.005	0.01	0.07	82.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.01	13.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	0.59	3.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	502	502	0.02	< 0.005	—	504
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	83.1	83.1	< 0.005	< 0.005	—	83.4
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	0.28	0.27	0.14	2.33	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	355	355	0.02	0.01	1.08	361
Vendor	0.02	0.01	0.50	0.18	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.76	393
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.25	0.24	0.18	1.83	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	314	314	0.01	0.02	0.03	320
Vendor	0.02	0.01	0.53	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.02	392
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.05	0.05	0.03	0.40	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	68.3	68.3	< 0.005	< 0.005	0.10	69.5
Vendor	< 0.005	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.5	78.5	< 0.005	0.01	0.07	82.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.01	13.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.69	6.63	9.91	0.01	0.26	—	0.26	0.24	—	0.24	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.00	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	0.07	0.64	0.95	< 0.005	0.02	—	0.02	0.02	—	0.02	—	145	145	0.01	< 0.005	—	145

Paving	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	0.12	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Paving	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	0.07	0.06	0.03	0.56	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	85.0	85.0	< 0.005	< 0.005	0.26	86.5
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.49	7.49	< 0.005	< 0.005	0.01	7.62
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	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26
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

3.12. Paving (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	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	0.02	0.02	0.19	1.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	145	145	0.01	< 0.005	—	145
Paving	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	< 0.005	< 0.005	0.03	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Paving	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	0.07	0.06	0.03	0.56	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	85.0	85.0	< 0.005	< 0.005	0.26	86.5
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.49	7.49	< 0.005	< 0.005	0.01	7.62
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	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26
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

3.13. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134

Architectural Coating	60.7	60.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.8	12.8	< 0.005	< 0.005	—	12.8
Architectural Coatings	5.82	5.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.12	2.12	< 0.005	< 0.005	—	2.13
Architectural Coatings	1.06	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	0.05	0.03	0.47	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.0	71.0	< 0.005	< 0.005	0.22	72.2
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
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	—	6.25	6.25	< 0.005	< 0.005	0.01	6.36
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	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.05
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

3.14. Architectural Coating (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	60.7	60.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.8	12.8	< 0.005	< 0.005	—	12.8
Architectural Coatings	5.82	5.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.12	2.12	< 0.005	< 0.005	—	2.13
Architectural Coatings	1.06	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	0.05	0.03	0.47	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.0	71.0	< 0.005	< 0.005	0.22	72.2
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
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	—	6.25	6.25	< 0.005	< 0.005	0.01	6.36
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	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.05
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Total	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Total	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Total	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Total	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Total	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Total	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	535	535	0.05	0.01	—	538
Total	—	—	—	—	—	—	—	—	—	—	—	—	535	535	0.05	0.01	—	538

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,140	3,140	0.30	0.04	—	3,158
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,140	3,140	0.30	0.04	—	3,158

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,136	3,136	0.30	0.04	—	3,154
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,136	3,136	0.30	0.04	—	3,154
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	519	519	0.05	0.01	—	523
Total	—	—	—	—	—	—	—	—	—	—	—	—	519	519	0.05	0.01	—	523

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Consumer Products	7.26	7.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.91	0.86	0.09	9.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.4	26.4	< 0.005	< 0.005	—	26.5
Total	8.75	8.70	0.09	9.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	126	126	0.01	< 0.005	—	127
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Consumer Products	7.26	7.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.84	7.84	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72

Consumer Products	1.33	1.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.08	0.08	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.15	2.15	< 0.005	< 0.005	—	2.16
Total	1.51	1.51	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.86	5.86	< 0.005	< 0.005	—	5.88

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Consumer Products	6.72	6.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100

Consumer Product	6.72	6.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72
Consumer Products	1.23	1.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.33	1.33	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.35	18.2	20.6	0.24	0.01	—	28.4
Total	—	—	—	—	—	—	—	—	—	—	—	2.35	18.2	20.6	0.24	0.01	—	28.4

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.35	12.2	14.5	0.24	0.01	—	22.3
Total	—	—	—	—	—	—	—	—	—	—	—	2.35	12.2	14.5	0.24	0.01	—	22.3

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Total	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Total	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Site Preparation	Site Preparation	2/13/2026	3/13/2026	5.00	20.0	—
Grading	Grading	3/14/2026	5/16/2026	5.00	45.0	—

Building Construction	Building Construction	5/17/2026	4/16/2028	5.00	500	—
Paving	Paving	4/17/2028	6/5/2028	5.00	35.0	—
Architectural Coating	Architectural Coating	6/6/2028	7/25/2028	5.00	35.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	6.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	62.6	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	18.6	6.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	6.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	12.5	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	6.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	62.6	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	18.6	6.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	6.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	12.5	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	687,083	229,028	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	30.0	0.00	—
Grading	—	—	135	0.00	—
Paving	0.00	0.00	0.00	0.00	1.92

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	1.92	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005
2028	0.00	532	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
Single Family Housing	1,643	1,660	1,488	592,367	13,711	13,856	12,418	4,944,690

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	1,643	1,660	1,488	592,367	13,711	13,856	12,418	4,944,690

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	87
No Fireplaces	87
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	87
No Fireplaces	87
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

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)
687082.5	229,028	0.00	0.00	—

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)
Single Family Housing	3,408,100	346	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)
Single Family Housing	3,305,898	346	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)
Single Family Housing	7,405,901	35,949,164

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	7,405,901	20,025,491

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	176	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	176	—

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
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

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

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

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	33.9	annual days of extreme heat
Extreme Precipitation	0.95	annual days with precipitation above 20 mm
Sea Level Rise	—	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	0	0	N/A
Drought	3	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	1	1	2
Drought	3	1	1	3
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	1	1	4

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	84.6
AQ-PM	97.4
AQ-DPM	26.6
Drinking Water	96.9
Lead Risk Housing	51.1
Pesticides	82.1
Toxic Releases	50.3
Traffic	19.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	98.0
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	23.9
Solid Waste	92.8
Sensitive Population	—
Asthma	71.3

Cardio-vascular	83.0
Low Birth Weights	43.8
Socioeconomic Factor Indicators	—
Education	89.1
Housing	2.99
Linguistic	88.1
Poverty	74.6
Unemployment	43.1

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	26.57513153
Employed	21.14718337
Median HI	40.93417169
Education	—
Bachelor's or higher	17.50288721
High school enrollment	100
Preschool enrollment	30.74554087
Transportation	—
Auto Access	75.69613756
Active commuting	66.90619787
Social	—
2-parent households	71.41023996
Voting	69.20313102
Neighborhood	—
Alcohol availability	90.51713076

Park access	11.08687283
Retail density	4.760682664
Supermarket access	10.63775183
Tree canopy	8.07134608
Housing	—
Homeownership	44.53997177
Housing habitability	72.34697806
Low-inc homeowner severe housing cost burden	65.63582702
Low-inc renter severe housing cost burden	94.52072373
Uncrowded housing	40.97266778
Health Outcomes	—
Insured adults	33.59425125
Arthritis	0.0
Asthma ER Admissions	21.4
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	30.3
Cognitively Disabled	35.0
Physically Disabled	57.4
Heart Attack ER Admissions	23.4
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	97.3

Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	12.4
Elderly	60.7
English Speaking	43.9
Foreign-born	50.6
Outdoor Workers	3.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.0
Traffic Density	33.2
Traffic Access	0.0
Other Indices	—
Hardship	75.7
Other Decision Support	—
2016 Voting	64.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	82.0
Healthy Places Index Score for Project Location (b)	35.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes

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

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	The Project Site is located within the City Limits and is adjacent to other urban land uses.
Characteristics: Utility Information	Electricity utility provider as stated in the site plan.
Land Use	Parcel acreage as per the Site Plan/APN map.
Construction: Construction Phases	No demolition phase as there are no existing structures on site.
Operations: Hearths	No wood stoves or gas powered fireplaces according to the site plan.
Operations: Energy Use	The development will not be connected to natural gas lines and will solely be powered by electricity. The energy use from natural gas was converted to kilowatts then added to the default kilowatt electricity demand to account for additional electricity usage.
Operations: Fleet Mix	The district accepted fleet mix data for the operational year (2029).

Appendix B. AERMOD Modeling Results

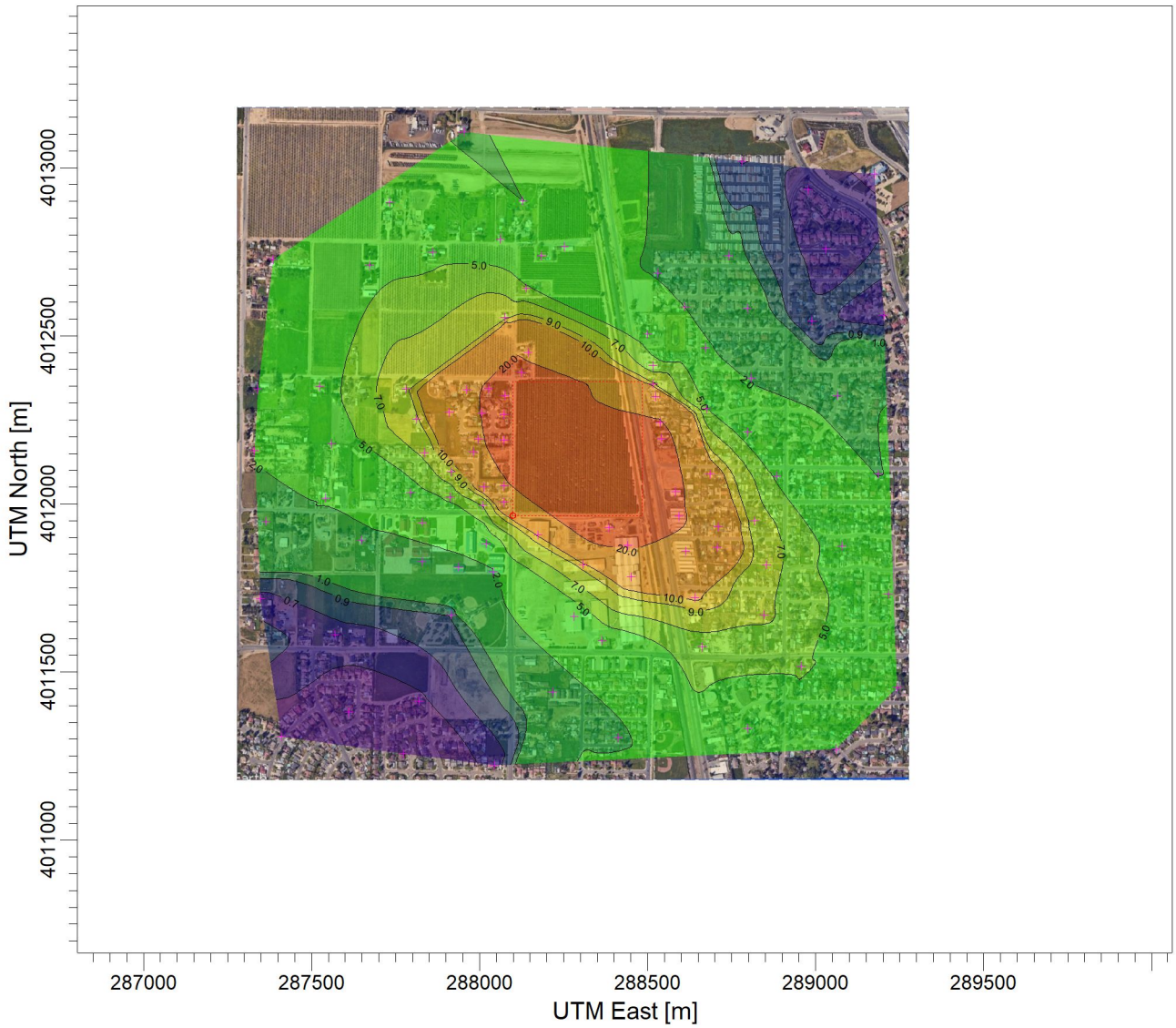
Prepared by Core Environmental Consulting:

Jesse Madsen, Owner, Principal Environmental Scientist
Clovis, CA

March 2025

PROJECT TITLE:

C:\Lakes\AERMOD View\24013 - Santa Fe West Subdivision HRA\24013 - S



PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 4 YEARS FOR SOURCE GROUP: AREA1 ug/m^3

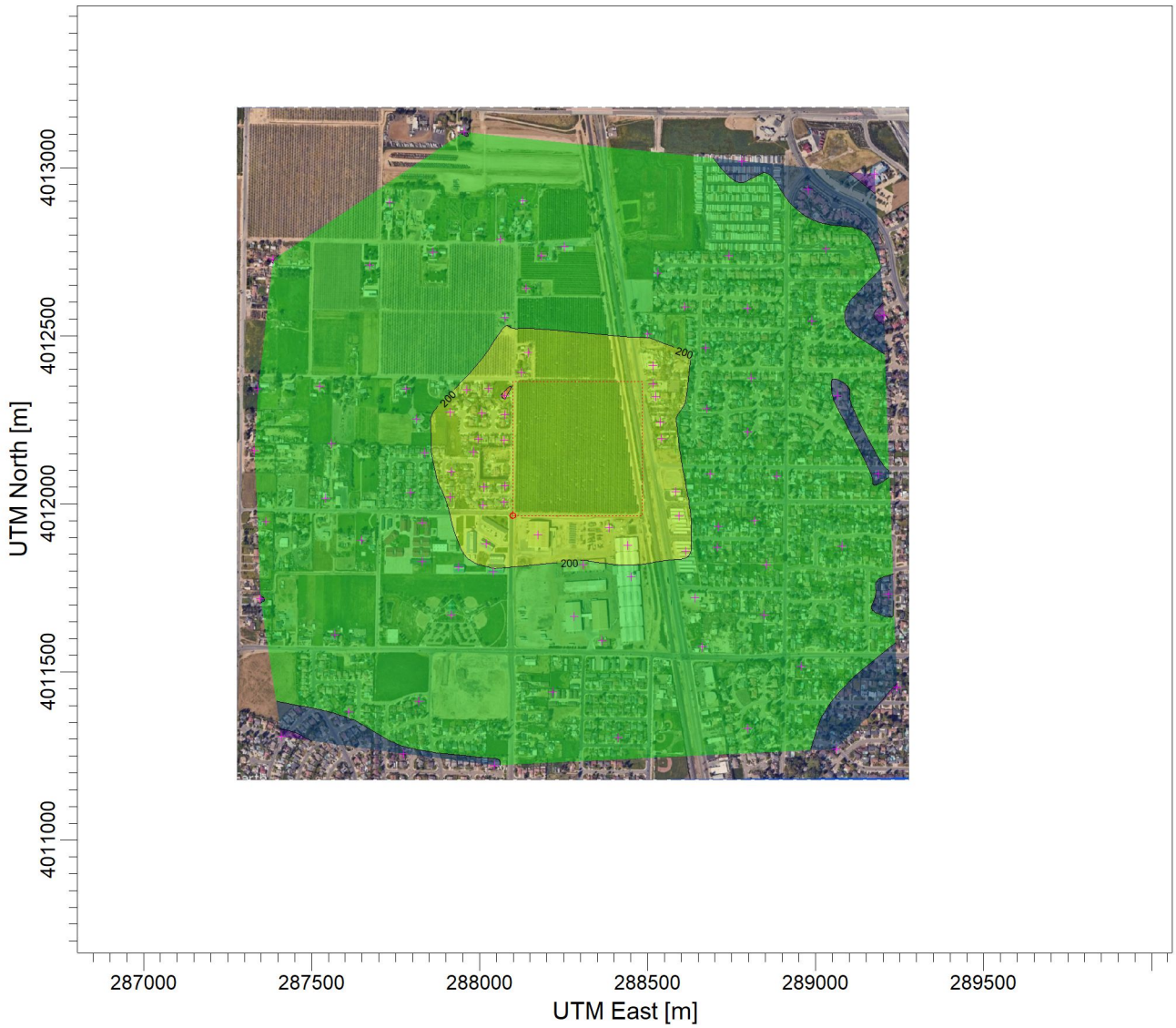
Max: 29.8 [ug/m^3] at (288384.76, 4011928.55)

0.3 0.5 0.7 0.9 1.0 2.0 5.0 7.0 9.0 10.0 20.0 29.8

COMMENTS:	SOURCES: **1**	COMPANY NAME:	
	RECEPTORS: **101**	MODELER:	
	OUTPUT TYPE: **Concentration**	SCALE: 1:20,493 0 0.5 km	
	MAX: **29.8 ug/m^3**	DATE: **3/20/2025**	PROJECT NO.:

PROJECT TITLE:

C:\Lakes\AERMOD View\24013 - Santa Fe West Subdivision HRA\24013 - S



PLOT FILE OF HIGH 1ST HIGH 1-HR VALUES FOR SOURCE GROUP: AREA1 ug/m^3

Max: 307 [ug/m^3] at (288075.36, 4012323.29)

84 90 100 200 300 307

COMMENTS:	SOURCES: **1**	COMPANY NAME:	
	RECEPTORS: **101**	MODELER:	
	OUTPUT TYPE: **Concentration**	SCALE: 1:20,493 0 0.5 km	
	MAX: **307 ug/m^3**	DATE: **3/20/2025**	PROJECT NO.:

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 13.0.0
** Lakes Environmental Software Inc.
** Date: 3/20/2025
** File: C:\Lakes\AERMOD View\24013 - Santa Fe West Subdivision HRA\24013 - Santa Fe
West Subdivision HRA.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\24013 - Santa Fe West Subdivision HRA\24013 - S
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   POLLUTID OTHER
   RUNORNOT RUN
   ERRORFIL "24013 - Santa Fe West Subdivision HRA.err"
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1        AREA       288098.660  4011966.150       85.020
** DESCRSRC Construction
** Source Parameters **
   SRCPARAM AREA1        6.5261E-06     4.000   385.000   398.000     0.000
0.000
   SRCGROUP AREA1    AREA1
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
** DESCRREC "" ""
```

DISCCART	288124.13	4012390.36	85.30	85.30
DISCCART	288075.36	4012323.29	85.11	85.11
DISCCART	288073.84	4012265.38	85.30	85.30
DISCCART	288072.31	4012189.17	85.11	85.11
DISCCART	288073.84	4012053.53	85.25	85.25
DISCCART	288072.31	4012004.75	85.14	85.14
DISCCART	288018.97	4011882.82	85.21	85.21
DISCCART	288174.43	4011907.21	85.21	85.21
DISCCART	288384.76	4011928.55	85.23	85.23
DISCCART	288441.15	4011876.73	85.12	85.12
DISCCART	288593.56	4011963.60	85.35	85.35
DISCCART	288582.89	4012036.76	85.62	85.62
DISCCART	288541.74	4012193.74	85.62	85.62
DISCCART	288537.17	4012242.52	85.55	85.55
DISCCART	288523.45	4012318.72	85.81	85.81
DISCCART	288515.83	4012356.83	85.82	85.82
DISCCART	288515.83	4012411.69	85.99	85.99
DISCCART	288499.07	4012504.67	85.92	85.92
DISCCART	288143.95	4012451.32	85.33	85.33
DISCCART	288026.59	4012343.11	85.54	85.54
DISCCART	288006.77	4012271.47	85.27	85.27
DISCCART	287996.11	4012192.22	85.12	85.12
DISCCART	287980.86	4012154.12	84.74	84.74
DISCCART	288012.87	4012050.48	84.81	84.81
DISCCART	288011.35	4011997.13	84.92	84.92
DISCCART	287938.19	4011812.71	85.03	85.03
DISCCART	287915.33	4011670.97	83.99	83.99
DISCCART	288040.31	4011799.00	84.96	84.96
DISCCART	288307.03	4011818.81	84.71	84.71
DISCCART	288611.85	4011859.96	85.27	85.27
DISCCART	288706.35	4011872.15	85.33	85.33
DISCCART	288709.39	4011931.60	85.25	85.25
DISCCART	288685.01	4012088.58	85.82	85.82
DISCCART	288674.34	4012283.67	85.75	85.75
DISCCART	288671.29	4012465.04	86.27	86.27
DISCCART	288610.33	4012586.97	86.00	86.00
DISCCART	288139.37	4012641.84	85.74	85.74
DISCCART	288075.36	4012554.96	85.47	85.47
DISCCART	287860.46	4012750.05	85.34	85.34
DISCCART	287672.99	4012708.90	84.92	84.92
DISCCART	287962.57	4012340.06	85.41	85.41
DISCCART	287781.20	4012341.58	84.84	84.84
DISCCART	287910.75	4012273.00	85.23	85.23
DISCCART	287813.21	4012251.66	84.64	84.64
DISCCART	287834.55	4012152.59	84.45	84.45
DISCCART	287915.33	4012094.68	84.57	84.57
DISCCART	287793.40	4012032.19	84.55	84.55
DISCCART	287912.28	4012021.52	84.66	84.66
DISCCART	287829.98	4011945.31	84.75	84.75
DISCCART	287828.45	4011827.96	84.83	84.83

DISCCART	288281.12	4011664.87	84.76	84.76
DISCCART	288451.82	4011783.76	84.55	84.55
DISCCART	288364.94	4011594.76	84.69	84.69
DISCCART	288640.81	4011721.27	85.43	85.43
DISCCART	288662.15	4011574.95	85.69	85.69
DISCCART	288846.57	4011670.97	85.62	85.62
DISCCART	288854.19	4011820.33	85.69	85.69
DISCCART	288817.61	4011949.89	85.42	85.42
DISCCART	288797.79	4012213.56	86.01	86.01
DISCCART	288808.46	4012375.11	85.99	85.99
DISCCART	288796.27	4012580.87	86.58	86.58
DISCCART	288529.55	4012687.56	85.94	85.94
DISCCART	288741.40	4012739.38	86.31	86.31
DISCCART	288183.57	4012737.86	85.51	85.51
DISCCART	288252.16	4012765.29	85.45	85.45
DISCCART	288060.67	4012788.51	85.44	85.44
DISCCART	288127.68	4012902.68	85.31	85.31
DISCCART	287953.95	4013106.18	85.76	85.76
DISCCART	287733.07	4012897.71	85.43	85.43
DISCCART	287385.62	4012726.47	84.82	84.82
DISCCART	287340.95	4012341.79	84.54	84.54
DISCCART	287524.60	4012349.23	84.59	84.59
DISCCART	287559.34	4012177.99	84.28	84.28
DISCCART	287331.02	4012158.14	84.52	84.52
DISCCART	287541.97	4012016.67	84.13	84.13
DISCCART	287648.69	4011892.58	84.56	84.56
DISCCART	287363.28	4011947.18	84.37	84.37
DISCCART	287348.39	4011718.86	84.49	84.49
DISCCART	287569.27	4011612.14	84.22	84.22
DISCCART	287410.44	4011306.88	82.92	82.92
DISCCART	287611.46	4011381.33	83.62	83.62
DISCCART	287772.78	4011257.24	84.71	84.71
DISCCART	287819.93	4011413.60	84.29	84.29
DISCCART	288043.29	4011222.50	84.31	84.31
DISCCART	288217.02	4011440.90	85.17	85.17
DISCCART	288413.08	4011304.40	85.12	85.12
DISCCART	288797.76	4011331.70	85.07	85.07
DISCCART	289060.83	4011272.14	85.33	85.33
DISCCART	289242.00	4011455.79	85.67	85.67
DISCCART	288956.60	4011517.83	85.24	85.24
DISCCART	289217.18	4011731.27	85.91	85.91
DISCCART	289078.20	4011875.21	86.04	86.04
DISCCART	289187.40	4012088.65	86.17	86.17
DISCCART	288884.62	4012083.68	86.06	86.06
DISCCART	289063.31	4012321.94	86.15	86.15
DISCCART	289202.29	4012562.67	86.49	86.49
DISCCART	288988.86	4012545.30	86.74	86.74
DISCCART	289031.05	4012758.73	86.45	86.45
DISCCART	288976.45	4012934.94	86.35	86.35
DISCCART	288780.39	4013019.32	86.86	86.86

```
   DISCCART    289174.99   4012979.61   87.30   87.30
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE visalia-muni-93144\Visalia_07-10.SFC
   PROFFILE visalia-muni-93144\Visalia_07-10.PFL
   SURFDATA 93144 2007
   UAIRDATA 23230 2007 OAKLAND/WSO_AP
   PROFBASE 89.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 AREA1 1ST "24013 - Santa Fe West Subdivision HRA.AD\01H1G001.PLT" 31
   PLOTFILE ANNUAL AREA1 "24013 - Santa Fe West Subdivision HRA.AD\AN00G001.PLT" 32
   SUMMFILE "24013 - Santa Fe West Subdivision HRA.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W187     163       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ***********************************
 *** SETUP Finishes Successfully ***
```

```
 **********************************

↑ *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                      ***        08:13:31

                                 PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                          ***     MODEL SETUP OPTIONS SUMMARY
 ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses RURAL Dispersion Only.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Assumes No FLAGPOLE Receptor Heights.
      * The User Specified a Pollutant Type of: OTHER

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates ANNUAL Averages

 **This Run Includes:      1 Source(s);       1 Source Group(s); and     101
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)
```

```
 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  21112

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and
Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    89.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                              ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   24013 - Santa Fe West Subdivision HRA.err

 **File for Summary of Results:   24013 - Santa Fe West Subdivision HRA.sum

 *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                      ***        08:13:31

                                 PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE  AIRCRAFT
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF AREA
```

```
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 AREA1            0   0.65261E-05  288098.7 4011966.1    85.0     4.00    385.00
398.00      0.00     0.00     NO                     NO
↑ *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                       ***        08:13:31

                                  PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                SOURCE IDs
 -----------                                                ----------


  AREA1      AREA1       ,
↑ *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                       ***        08:13:31

                                  PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                            *** DISCRETE CARTESIAN RECEPTORS ***
                                          (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                          (METERS)

     ( 288124.1, 4012390.4,      85.3,      85.3,       0.0);         ( 288075.4,
4012323.3,      85.1,      85.1,       0.0);
     ( 288073.8, 4012265.4,      85.3,      85.3,       0.0);         ( 288072.3,
4012189.2,      85.1,      85.1,       0.0);
     ( 288073.8, 4012053.5,      85.2,      85.2,       0.0);         ( 288072.3,
4012004.8,      85.1,      85.1,       0.0);
     ( 288019.0, 4011882.8,      85.2,      85.2,       0.0);         ( 288174.4,
4011907.2,      85.2,      85.2,       0.0);
     ( 288384.8, 4011928.5,      85.2,      85.2,       0.0);         ( 288441.1,
4011876.7,      85.1,      85.1,       0.0);
     ( 288593.6, 4011963.6,      85.3,      85.3,       0.0);         ( 288582.9,
4012036.8,      85.6,      85.6,       0.0);
     ( 288541.7, 4012193.7,      85.6,      85.6,       0.0);         ( 288537.2,
4012242.5,      85.5,      85.5,       0.0);
```

(288523.5, 4012318.7, 85.8, 85.8, 0.0); (288515.8, 4012356.8, 85.8, 85.8, 0.0);
(288515.8, 4012411.7, 86.0, 86.0, 0.0); (288499.1, 4012504.7, 85.9, 85.9, 0.0);
(288144.0, 4012451.3, 85.3, 85.3, 0.0); (288026.6, 4012343.1, 85.5, 85.5, 0.0);
(288006.8, 4012271.5, 85.3, 85.3, 0.0); (287996.1, 4012192.2, 85.1, 85.1, 0.0);
(287980.9, 4012154.1, 84.7, 84.7, 0.0); (288012.9, 4012050.5, 84.8, 84.8, 0.0);
(288011.3, 4011997.1, 84.9, 84.9, 0.0); (287938.2, 4011812.7, 85.0, 85.0, 0.0);
(287915.3, 4011671.0, 84.0, 84.0, 0.0); (288040.3, 4011799.0, 85.0, 85.0, 0.0);
(288307.0, 4011818.8, 84.7, 84.7, 0.0); (288611.8, 4011860.0, 85.3, 85.3, 0.0);
(288706.3, 4011872.1, 85.3, 85.3, 0.0); (288709.4, 4011931.6, 85.2, 85.2, 0.0);
(288685.0, 4012088.6, 85.8, 85.8, 0.0); (288674.3, 4012283.7, 85.8, 85.8, 0.0);
(288671.3, 4012465.0, 86.3, 86.3, 0.0); (288610.3, 4012587.0, 86.0, 86.0, 0.0);
(288139.4, 4012641.8, 85.7, 85.7, 0.0); (288075.4, 4012555.0, 85.5, 85.5, 0.0);
(287860.5, 4012750.0, 85.3, 85.3, 0.0); (287673.0, 4012708.9, 84.9, 84.9, 0.0);
(287962.6, 4012340.1, 85.4, 85.4, 0.0); (287781.2, 4012341.6, 84.8, 84.8, 0.0);
(287910.8, 4012273.0, 85.2, 85.2, 0.0); (287813.2, 4012251.7, 84.6, 84.6, 0.0);
(287834.5, 4012152.6, 84.5, 84.5, 0.0); (287915.3, 4012094.7, 84.6, 84.6, 0.0);
(287793.4, 4012032.2, 84.5, 84.5, 0.0); (287912.3, 4012021.5, 84.7, 84.7, 0.0);
(287830.0, 4011945.3, 84.8, 84.8, 0.0); (287828.5, 4011828.0, 84.8, 84.8, 0.0);
(288281.1, 4011664.9, 84.8, 84.8, 0.0); (288451.8, 4011783.8, 84.5, 84.5, 0.0);
(288364.9, 4011594.8, 84.7, 84.7, 0.0); (288640.8, 4011721.3, 85.4, 85.4, 0.0);
(288662.1, 4011574.9, 85.7, 85.7, 0.0); (288846.6, 4011671.0, 85.6, 85.6, 0.0);
(288854.2, 4011820.3, 85.7, 85.7, 0.0); (288817.6, 4011949.9, 85.4, 85.4, 0.0);
(288797.8, 4012213.6, 86.0, 86.0, 0.0); (288808.5, 4012375.1, 86.0, 86.0, 0.0);
(288796.3, 4012580.9, 86.6, 86.6, 0.0); (288529.5, 4012687.6, 85.9, 85.9, 0.0);
(288741.4, 4012739.4, 86.3, 86.3, 0.0); (288183.6, 4012737.9, 85.5, 85.5, 0.0);

(288252.2, 4012765.3, 85.5, 85.5, 0.0); (288060.7, 4012788.5, 85.4, 85.4, 0.0);
(288127.7, 4012902.7, 85.3, 85.3, 0.0); (287954.0, 4013106.2, 85.8, 85.8, 0.0);
(287733.1, 4012897.7, 85.4, 85.4, 0.0); (287385.6, 4012726.5, 84.8, 84.8, 0.0);
(287341.0, 4012341.8, 84.5, 84.5, 0.0); (287524.6, 4012349.2, 84.6, 84.6, 0.0);
(287559.3, 4012178.0, 84.3, 84.3, 0.0); (287331.0, 4012158.1, 84.5, 84.5, 0.0);
(287542.0, 4012016.7, 84.1, 84.1, 0.0); (287648.7, 4011892.6, 84.6, 84.6, 0.0);
(287363.3, 4011947.2, 84.4, 84.4, 0.0); (287348.4, 4011718.9, 84.5, 84.5, 0.0);
(287569.3, 4011612.1, 84.2, 84.2, 0.0); (287410.4, 4011306.9, 82.9, 82.9, 0.0);
(287611.5, 4011381.3, 83.6, 83.6, 0.0); (287772.8, 4011257.2, 84.7, 84.7, 0.0);
(287819.9, 4011413.6, 84.3, 84.3, 0.0); (288043.3, 4011222.5, 84.3, 84.3, 0.0);
(288217.0, 4011440.9, 85.2, 85.2, 0.0); (288413.1, 4011304.4, 85.1, 85.1, 0.0);
(288797.8, 4011331.7, 85.1, 85.1, 0.0); (289060.8, 4011272.1, 85.3, 85.3, 0.0);
(289242.0, 4011455.8, 85.7, 85.7, 0.0); (288956.6, 4011517.8, 85.2, 85.2, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(289217.2, 4011731.3, 85.9, 85.9, 0.0); (289078.2, 4011875.2, 86.0, 86.0, 0.0);
(289187.4, 4012088.6, 86.2, 86.2, 0.0); (288884.6, 4012083.7, 86.1, 86.1, 0.0);
(289063.3, 4012321.9, 86.1, 86.1, 0.0); (289202.3, 4012562.7, 86.5, 86.5, 0.0);
(288988.9, 4012545.3, 86.7, 86.7, 0.0); (289031.0, 4012758.7, 86.5, 86.5, 0.0);
(288976.5, 4012934.9, 86.3, 86.3, 0.0); (288780.4, 4013019.3, 86.9, 86.9, 0.0);
(289175.0, 4012979.6, 87.3, 87.3, 0.0);

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54,   3.09,   5.14,   8.23,   10.80,

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

```
   Surface file:   visalia-muni-93144\Visalia_07-10.SFC
                 Met Version:  21112
   Profile file:   visalia-muni-93144\Visalia_07-10.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:    93144                  Upper air station no.:    23230
                  Name: UNKNOWN                                     Name:
OAKLAND/WSO_AP
                  Year:   2007                                      Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
 07 01 01   1 01 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  277.1    2.0
 07 01 01   1 02 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  276.1    2.0
 07 01 01   1 03 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  276.1    2.0
 07 01 01   1 04  -11.5  0.137 -9.000 -9.000 -999.  121.     20.5  0.02   0.79
1.00    2.36  123.   10.0  274.1    2.0
 07 01 01   1 05 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  273.1    2.0
 07 01 01   1 06   -6.3  0.100 -9.000 -9.000 -999.   75.     14.3  0.02   0.79
1.00    1.76  122.   10.0  273.1    2.0
 07 01 01   1 07  -11.5  0.137 -9.000 -9.000 -999.  121.     20.5  0.02   0.79
1.00    2.36  125.   10.0  272.1    2.0
 07 01 01   1 08  -19.9  0.200 -9.000 -9.000 -999.  214.     43.8  0.02   0.79
0.63    3.36  143.   10.0  274.1    2.0
 07 01 01   1 09   -3.6  0.174 -9.000 -9.000 -999.  175.    134.1  0.02   0.79
0.35    2.86  147.   10.0  275.1    2.0
 07 01 01   1 10    8.7  0.192  0.218  0.011   43.  201.    -73.0  0.02   0.79
0.26    2.86  141.   10.0  276.1    2.0
 07 01 01   1 11   16.3  0.248  0.321  0.012   73.  296.    -84.4  0.03   0.79
0.22    3.36  184.   10.0  276.1    2.0
 07 01 01   1 12   20.2 -9.000 -9.000 -9.000  140. -999. -99999.0  0.02   0.79
0.21    0.00    0.   10.0  276.1    2.0
 07 01 01   1 13   20.5  0.182  0.472  0.012  185.  187.    -26.7  0.03   0.79
0.21    2.36  163.   10.0  278.1    2.0
 07 01 01   1 14   16.9  0.212  0.471  0.011  223.  234.    -51.0  0.03   0.79
0.22    2.86  169.   10.0  279.1    2.0
 07 01 01   1 15   52.0  0.226  0.810  0.012  368.  258.    -20.0  0.03   0.79
0.25    2.86  162.   10.0  281.1    2.0
 07 01 01   1 16   10.8  0.132  0.482  0.012  375.  119.    -19.3  0.02   0.79
0.35    1.76  224.   10.0  282.1    2.0
```

```
 07 01 01   1 17 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
0.61    0.00    0.   10.0  280.1    2.0
 07 01 01   1 18  -11.7  0.139 -9.000 -9.000 -999.  125.     21.3  0.02   0.79
1.00    2.36   17.   10.0  278.1    2.0
 07 01 01   1 19  -11.6  0.138 -9.000 -9.000 -999.  123.     20.9  0.02   0.79
1.00    2.36   34.   10.0  278.1    2.0
 07 01 01   1 20 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  277.1    2.0
 07 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  276.1    2.0
 07 01 01   1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  274.1    2.0
 07 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  274.1    2.0
 07 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  274.1    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01   10.0 1 -999.  -99.00   277.2   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                      ***        08:13:31

                                 PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   4
YEARS FOR SOURCE GROUP: AREA1    ***
                                 INCLUDING SOURCE(S):     AREA1       ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF OTHER    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         288124.13    4012390.36       26.12885                      288075.36
4012323.29       28.76425
         288073.84    4012265.38       28.90464                      288072.31
4012189.17       27.14984
         288073.84    4012053.53       18.69348                      288072.31
```

4012004.75 12.23793
288018.97 4011882.82 2.67615 288174.43
4011907.21 10.20056
288384.76 4011928.55 29.80336 288441.15
4011876.73 21.19149
288593.56 4011963.60 22.04621 288582.89
4012036.76 22.91207
288541.74 4012193.74 23.76448 288537.17
4012242.52 20.77189
288523.45 4012318.72 13.93465 288515.83
4012356.83 9.27157
288515.83 4012411.69 5.66022 288499.07
4012504.67 3.77244
288143.95 4012451.32 16.02060 288026.59
4012343.11 22.30392
288006.77 4012271.47 20.56550 287996.11
4012192.22 17.72689
287980.86 4012154.12 14.80672 288012.87
4012050.48 11.47397
288011.35 4011997.13 7.26665 287938.19
4011812.71 1.55124
287915.33 4011670.97 0.91155 288040.31
4011799.00 1.90991
288307.03 4011818.81 9.58504 288611.85
4011859.96 16.99676
288706.35 4011872.15 12.94156 288709.39
4011931.60 13.02950
288685.01 4012088.58 11.49508 288674.34
4012283.67 5.01579
288671.29 4012465.04 2.12264 288610.33
4012586.97 1.99519
288139.37 4012641.84 5.15502 288075.36
4012554.96 8.68702
287860.46 4012750.05 4.28525 287672.99
4012708.90 4.44109
287962.57 4012340.06 16.75081 287781.20
4012341.58 8.66246
287910.75 4012273.00 13.32995 287813.21
4012251.66 8.82709
287834.55 4012152.59 7.38954 287915.33
4012094.68 8.32119
287793.40 4012032.19 3.89433 287912.28
4012021.52 5.46127
287829.98 4011945.31 2.65111 287828.45
4011827.96 1.39847
288281.12 4011664.87 3.32484 288451.82
4011783.76 11.83869
288364.94 4011594.76 3.34938 288640.81
4011721.27 10.27053
288662.15 4011574.95 6.03591 288846.57

4011670.97 7.43166
288854.19 4011820.33 7.95887 288817.61
4011949.89 8.28905
288797.79 4012213.56 3.98079 288808.46
4012375.11 1.73351
288796.27 4012580.87 1.14434 288529.55
4012687.56 1.85836
288741.40 4012739.38 1.08891 288183.57
4012737.86 3.13293
288252.16 4012765.29 2.47756 288060.67
4012788.51 3.20474
288127.68 4012902.68 1.98924 287953.95
4013106.18 1.47638
287733.07 4012897.71 2.92134 287385.62
4012726.47 3.25027
287340.95 4012341.79 2.78087 287524.60
4012349.23 4.23895
287559.34 4012177.99 3.44955 287331.02
4012158.14 2.10630
287541.97 4012016.67 2.11590 287648.69
4011892.58 1.47966
287363.28 4011947.18 1.28929 287348.39
4011718.86 0.60442
287569.27 4011612.14 0.57291 287410.44
4011306.88 0.30124
↑ *** AERMOD - VERSION 24142 *** *** C:\Lakes\AERMOD View\24013 - Santa Fe West Subdivision HRA\24013 - S *** 03/20/25
*** AERMET - VERSION 21112 *** ***
*** 08:13:31

PAGE 9
*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: AREA1 ***
INCLUDING SOURCE(S): AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC
- -
287611.46 4011381.33 0.36093 287772.78
4011257.24 0.33277
287819.93 4011413.60 0.44749 288043.29

```
4011222.50        0.53835
         288217.02    4011440.90        1.26641                            288413.08
4011304.40        1.52170
         288797.76    4011331.70        3.17761                            289060.83
4011272.14        3.25725
         289242.00    4011455.79        3.39470                            288956.60
4011517.83        5.20950
         289217.18    4011731.27        3.10058                            289078.20
4011875.21        3.79686
         289187.40    4012088.65        1.93249                            288884.62
4012083.68        4.59217
         289063.31    4012321.94        1.15316                            289202.29
4012562.67        0.49819
         288988.86    4012545.30        0.73943                            289031.05
4012758.73        0.55427
         288976.45    4012934.94        0.56788                            288780.39
4013019.32        0.68579
         289174.99    4012979.61        0.38826
```

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↑ *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                        ***        08:13:31

                                   PAGE  10
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  AREA1    ***
                                   INCLUDING SOURCE(S):     AREA1       ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF OTHER    IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        288124.13   4012390.36      293.75564  (07120103)               288075.36
4012323.29      306.58504  (07120103)
        288073.84   4012265.38      277.54422  (07120103)               288072.31
4012189.17      263.55492  (07010604)
        288073.84   4012053.53      261.42775  (07030522)               288072.31
4012004.75      261.72328  (07030522)
        288018.97   4011882.82      229.52126  (08012224)               288174.43
4011907.21      237.66202  (08010101)
        288384.76   4011928.55      243.22447  (07010301)               288441.15
```

4011876.73 228.68539 (07010301)
288593.56 4011963.60 213.90651 (09010103) 288582.89
4012036.76 212.71421 (09122305)
288541.74 4012193.74 217.16779 (09120918) 288537.17
4012242.52 215.86263 (08121922)
288523.45 4012318.72 243.73944 (07011624) 288515.83
4012356.83 251.99391 (07020822)
288515.83 4012411.69 247.69283 (07120723) 288499.07
4012504.67 194.65745 (07030701)
288143.95 4012451.32 226.86806 (09120603) 288026.59
4012343.11 278.95606 (07120103)
288006.77 4012271.47 255.19733 (07010604) 287996.11
4012192.22 251.22661 (07010604)
287980.86 4012154.12 242.14276 (07010604) 288012.87
4012050.48 249.00648 (07010604)
288011.35 4011997.13 246.20915 (07030522) 287938.19
4011812.71 189.63766 (07122407)
287915.33 4011670.97 155.00500 (09011307) 288040.31
4011799.00 196.42691 (08010101)
288307.03 4011818.81 193.96548 (08011906) 288611.85
4011859.96 206.89277 (07011002)
288706.35 4011872.15 173.03460 (09010103) 288709.39
4011931.60 169.82565 (09122305)
288685.01 4012088.58 171.22266 (09011005) 288674.34
4012283.67 168.72356 (08121922)
288671.29 4012465.04 180.53282 (07011624) 288610.33
4012586.97 168.09418 (07042203)
288139.37 4012641.84 157.33587 (09031206) 288075.36
4012554.96 185.79188 (07121918)
287860.46 4012750.05 139.04463 (07022405) 287672.99
4012708.90 154.33586 (07120103)
287962.57 4012340.06 211.71372 (07120103) 287781.20
4012341.58 153.61906 (07010604)
287910.75 4012273.00 217.63043 (07010604) 287813.21
4012251.66 188.03202 (07010604)
287834.55 4012152.59 192.73914 (07010604) 287915.33
4012094.68 215.56562 (07010604)
287793.40 4012032.19 171.92960 (07030522) 287912.28
4012021.52 204.82127 (07030522)
287829.98 4011945.31 170.46710 (07030522) 287828.45
4011827.96 159.91136 (10122806)
288281.12 4011664.87 153.91807 (09122403) 288451.82
4011783.76 187.27147 (10021001)
288364.94 4011594.76 141.64725 (09122306) 288640.81
4011721.27 167.71315 (08013007)
288662.15 4011574.95 141.32992 (07010301) 288846.57
4011670.97 134.48038 (07010621)
288854.19 4011820.33 138.58782 (08011519) 288817.61
4011949.89 143.58729 (09011502)
288797.79 4012213.56 143.17987 (08121922) 288808.46

4012375.11   130.83705 (08011702)
288796.27   4012580.87   143.85575 (07011624)   288529.55
4012687.56   132.87277 (08011920)
288741.40   4012739.38   128.92965 (07042203)   288183.57
4012737.86   137.96416 (08010801)
288252.16   4012765.29   133.10843 (08020501)   288060.67
4012788.51   131.98767 (09031206)
288127.68   4012902.68   116.72259 (08010801)   287953.95
4013106.18   98.56344 (09031206)
287733.07   4012897.71   114.96049 (08011804)   287385.62
4012726.47   98.56139 (07011407)
287340.95   4012341.79   100.69428 (07010604)   287524.60
4012349.23   113.70843 (10123107)
287559.34   4012177.99   142.86931 (07010604)   287331.02
4012158.14   116.67882 (07010604)
287541.97   4012016.67   130.58683 (07030522)   287648.69
4011892.58   130.95106 (07020406)
287363.28   4011947.18   112.98434 (07030522)   287348.39
4011718.86   99.18981 (07021520)
287569.27   4011612.14   111.78667 (10013004)   287410.44
4011306.88   87.18483 (10010622)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: AREA1   ***
INCLUDING SOURCE(S):   AREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)
- -
287611.46   4011381.33   101.15726 (07021521)   287772.78
4011257.24   98.70258 (08010101)
287819.93   4011413.60   114.99853 (08010101)   288043.29
4011222.50   97.97696 (09020703)
288217.02   4011440.90   119.36008 (09122403)   288413.08
4011304.40   108.20130 (09122306)
288797.76   4011331.70   108.50611 (07010301)   289060.83

```
4011272.14       90.99447  (07122120)
        289242.00   4011455.79       89.19714  (09032306)                288956.60
4011517.83      112.21768  (07021203)
        289217.18   4011731.27       96.31870  (08010704)                289078.20
4011875.21      108.81760  (09031001)
        289187.40   4012088.65       98.14632  (08031406)                288884.62
4012083.68      129.82473  (08121924)
        289063.31   4012321.94       98.08031  (09120722)                289202.29
4012562.67       86.53834  (09012105)
        288988.86   4012545.30      105.12185  (10120322)                289031.05
4012758.73      106.00070  (07011624)
        288976.45   4012934.94       91.04421  (07120723)                288780.39
4013019.32       90.11915  (08012023)
        289174.99   4012979.61       84.04774  (07020822)

 *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                       ***       08:13:31

                                 PAGE  12
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                  *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   4 YEARS ***


                                   ** CONC OF OTHER    IN MICROGRAMS/M**3
               **


                        NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV,
ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

AREA1     1ST HIGHEST VALUE IS      29.80336 AT (  288384.76,  4011928.55,    85.23,
   85.23,    0.00)  DC
          2ND HIGHEST VALUE IS      28.90464 AT (  288073.84,  4012265.38,    85.30,
   85.30,    0.00)  DC
          3RD HIGHEST VALUE IS      28.76425 AT (  288075.36,  4012323.29,    85.11,
   85.11,    0.00)  DC
          4TH HIGHEST VALUE IS      27.14984 AT (  288072.31,  4012189.17,    85.11,
   85.11,    0.00)  DC
          5TH HIGHEST VALUE IS      26.12885 AT (  288124.13,  4012390.36,    85.30,
   85.30,    0.00)  DC
          6TH HIGHEST VALUE IS      23.76448 AT (  288541.74,  4012193.74,    85.62,
   85.62,    0.00)  DC
          7TH HIGHEST VALUE IS      22.91207 AT (  288582.89,  4012036.76,    85.62,
```

```
   85.62,    0.00)  DC
          8TH HIGHEST VALUE IS      22.30392 AT (  288026.59,  4012343.11,    85.54,
   85.54,    0.00)  DC
          9TH HIGHEST VALUE IS      22.04621 AT (  288593.56,  4011963.60,    85.35,
   85.35,    0.00)  DC
         10TH HIGHEST VALUE IS      21.19149 AT (  288441.15,  4011876.73,    85.12,
   85.12,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
🡅 *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                       ***        08:13:31

                                  PAGE  13
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                                *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                    ** CONC OF OTHER    IN MICROGRAMS/M**3
               **

                                                        DATE
                                            NETWORK
GROUP ID                            AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

AREA1    HIGH   1ST HIGH VALUE IS     306.58504  ON 07120103: AT (  288075.36,
4012323.29,    85.11,    85.11,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
🡅 *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                       ***        08:13:31

                                  PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*
```

```
*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            1 Warning Message(s)
A Total of        10959 Informational Message(s)

A Total of        35064 Hours Were Processed

A Total of         9719 Calm Hours Identified

A Total of         1240 Missing Hours Identified (  3.54 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
ME W187     163       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
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Appendix C. HARP 2 ADMRT Calculation Results

Prepared by Core Environmental Consulting:

Jesse Madsen, Owner, Principal Environmental Scientist
Clovis, CA

March 2025

Project Site

CORE ENVIRONMENTAL CONSULTING Core Environmental Consulting Clovis, CA 93612 (559) 202-3941	PROJECT NAME **Santa Fe West Subdivision**	DATE **3/20/25**	SCALE **NOT TO SCALE**	**APPENDIX C RECEPTOR MAP**
	PROJECT NUMBER **24013**	DRAWN BY **JM**	LAT/LONG **36.231321, -119.355838**	

**HARP - Air Dispersion Modeling and Risk Tool v22118
**3/20/2025
**Exported Risk Results

REC	GRP	X	Y	RISK_SUM	SCENARIO	INHAL_RISK
1	ALL	288124.1	4012390	3.15E-06	3YrCancerDerived_Inh	3.15E-06
2	ALL	288075.4	4012323	3.47E-06	3YrCancerDerived_Inh	3.47E-06
3	ALL	288073.8	4012265	3.48E-06	3YrCancerDerived_Inh	3.48E-06
4	ALL	288072.3	4012189	3.27E-06	3YrCancerDerived_Inh	3.27E-06
5	ALL	288073.8	4012054	2.25E-06	3YrCancerDerived_Inh	2.25E-06
6	ALL	288072.3	4012005	1.48E-06	3YrCancerDerived_Inh	1.48E-06
7	ALL	288019	4011883	3.23E-07	3YrCancerDerived_Inh	3.23E-07
8	ALL	288174.4	4011907	1.23E-06	3YrCancerDerived_Inh	1.23E-06
9	ALL	288384.8	4011929	3.59E-06	3YrCancerDerived_Inh	3.59E-06
10	ALL	288441.2	4011877	2.55E-06	3YrCancerDerived_Inh	2.55E-06
11	ALL	288593.6	4011964	2.66E-06	3YrCancerDerived_Inh	2.66E-06
12	ALL	288582.9	4012037	2.76E-06	3YrCancerDerived_Inh	2.76E-06
13	ALL	288541.7	4012194	2.87E-06	3YrCancerDerived_Inh	2.87E-06
14	ALL	288537.2	4012243	2.50E-06	3YrCancerDerived_Inh	2.50E-06
15	ALL	288523.5	4012319	1.68E-06	3YrCancerDerived_Inh	1.68E-06
16	ALL	288515.8	4012357	1.12E-06	3YrCancerDerived_Inh	1.12E-06
17	ALL	288515.8	4012412	6.82E-07	3YrCancerDerived_Inh	6.82E-07
18	ALL	288499.1	4012505	4.55E-07	3YrCancerDerived_Inh	4.55E-07
19	ALL	288144	4012451	1.93E-06	3YrCancerDerived_Inh	1.93E-06
20	ALL	288026.6	4012343	2.69E-06	3YrCancerDerived_Inh	2.69E-06
21	ALL	288006.8	4012271	2.48E-06	3YrCancerDerived_Inh	2.48E-06
22	ALL	287996.1	4012192	2.14E-06	3YrCancerDerived_Inh	2.14E-06
23	ALL	287980.9	4012154	1.79E-06	3YrCancerDerived_Inh	1.79E-06
24	ALL	288012.9	4012050	1.38E-06	3YrCancerDerived_Inh	1.38E-06
25	ALL	288011.4	4011997	8.76E-07	3YrCancerDerived_Inh	8.76E-07
26	ALL	287938.2	4011813	1.87E-07	3YrCancerDerived_Inh	1.87E-07
27	ALL	287915.3	4011671	1.10E-07	3YrCancerDerived_Inh	1.10E-07
28	ALL	288040.3	4011799	2.30E-07	3YrCancerDerived_Inh	2.30E-07
29	ALL	288307	4011819	1.16E-06	3YrCancerDerived_Inh	1.16E-06
30	ALL	288611.9	4011860	2.05E-06	3YrCancerDerived_Inh	2.05E-06
31	ALL	288706.4	4011872	1.56E-06	3YrCancerDerived_Inh	1.56E-06
32	ALL	288709.4	4011932	1.57E-06	3YrCancerDerived_Inh	1.57E-06
33	ALL	288685	4012089	1.39E-06	3YrCancerDerived_Inh	1.39E-06
34	ALL	288674.3	4012284	6.05E-07	3YrCancerDerived_Inh	6.05E-07
35	ALL	288671.3	4012465	2.56E-07	3YrCancerDerived_Inh	2.56E-07
36	ALL	288610.3	4012587	2.41E-07	3YrCancerDerived_Inh	2.41E-07
37	ALL	288139.4	4012642	6.22E-07	3YrCancerDerived_Inh	6.22E-07
38	ALL	288075.4	4012555	1.05E-06	3YrCancerDerived_Inh	1.05E-06
39	ALL	287860.5	4012750	5.17E-07	3YrCancerDerived_Inh	5.17E-07
40	ALL	287673	4012709	5.35E-07	3YrCancerDerived_Inh	5.35E-07

41	ALL	287962.6	4012340	2.02E-06	3YrCancerDerived_Inh	2.02E-06
42	ALL	287781.2	4012342	1.04E-06	3YrCancerDerived_Inh	1.04E-06
43	ALL	287910.8	4012273	1.61E-06	3YrCancerDerived_Inh	1.61E-06
44	ALL	287813.2	4012252	1.06E-06	3YrCancerDerived_Inh	1.06E-06
45	ALL	287834.6	4012153	8.91E-07	3YrCancerDerived_Inh	8.91E-07
46	ALL	287915.3	4012095	1.00E-06	3YrCancerDerived_Inh	1.00E-06
47	ALL	287793.4	4012032	4.70E-07	3YrCancerDerived_Inh	4.70E-07
48	ALL	287912.3	4012022	6.58E-07	3YrCancerDerived_Inh	6.58E-07
49	ALL	287830	4011945	3.20E-07	3YrCancerDerived_Inh	3.20E-07
50	ALL	287828.5	4011828	1.69E-07	3YrCancerDerived_Inh	1.69E-07
51	ALL	288281.1	4011665	4.01E-07	3YrCancerDerived_Inh	4.01E-07
52	ALL	288451.8	4011784	1.43E-06	3YrCancerDerived_Inh	1.43E-06
53	ALL	288364.9	4011595	4.04E-07	3YrCancerDerived_Inh	4.04E-07
54	ALL	288640.8	4011721	1.24E-06	3YrCancerDerived_Inh	1.24E-06
55	ALL	288662.2	4011575	7.28E-07	3YrCancerDerived_Inh	7.28E-07
56	ALL	288846.6	4011671	8.96E-07	3YrCancerDerived_Inh	8.96E-07
57	ALL	288854.2	4011820	9.60E-07	3YrCancerDerived_Inh	9.60E-07
58	ALL	288817.6	4011950	9.99E-07	3YrCancerDerived_Inh	9.99E-07
59	ALL	288797.8	4012214	4.80E-07	3YrCancerDerived_Inh	4.80E-07
60	ALL	288808.5	4012375	2.09E-07	3YrCancerDerived_Inh	2.09E-07
61	ALL	288796.3	4012581	1.38E-07	3YrCancerDerived_Inh	1.38E-07
62	ALL	288529.6	4012688	2.24E-07	3YrCancerDerived_Inh	2.24E-07
63	ALL	288741.4	4012739	1.31E-07	3YrCancerDerived_Inh	1.31E-07
64	ALL	288183.6	4012738	3.78E-07	3YrCancerDerived_Inh	3.78E-07
65	ALL	288252.2	4012765	2.99E-07	3YrCancerDerived_Inh	2.99E-07
66	ALL	288060.7	4012789	3.86E-07	3YrCancerDerived_Inh	3.86E-07
67	ALL	288127.7	4012903	2.40E-07	3YrCancerDerived_Inh	2.40E-07
68	ALL	287954	4013106	1.78E-07	3YrCancerDerived_Inh	1.78E-07
69	ALL	287733.1	4012898	3.52E-07	3YrCancerDerived_Inh	3.52E-07
70	ALL	287385.6	4012726	3.92E-07	3YrCancerDerived_Inh	3.92E-07
71	ALL	287341	4012342	3.35E-07	3YrCancerDerived_Inh	3.35E-07
72	ALL	287524.6	4012349	5.11E-07	3YrCancerDerived_Inh	5.11E-07
73	ALL	287559.3	4012178	4.16E-07	3YrCancerDerived_Inh	4.16E-07
74	ALL	287331	4012158	2.54E-07	3YrCancerDerived_Inh	2.54E-07
75	ALL	287542	4012017	2.55E-07	3YrCancerDerived_Inh	2.55E-07
76	ALL	287648.7	4011893	1.78E-07	3YrCancerDerived_Inh	1.78E-07
77	ALL	287363.3	4011947	1.55E-07	3YrCancerDerived_Inh	1.55E-07
78	ALL	287348.4	4011719	7.29E-08	3YrCancerDerived_Inh	7.29E-08
79	ALL	287569.3	4011612	6.91E-08	3YrCancerDerived_Inh	6.91E-08
80	ALL	287410.4	4011307	3.63E-08	3YrCancerDerived_Inh	3.63E-08
81	ALL	287611.5	4011381	4.35E-08	3YrCancerDerived_Inh	4.35E-08
82	ALL	287772.8	4011257	4.01E-08	3YrCancerDerived_Inh	4.01E-08
83	ALL	287819.9	4011414	5.40E-08	3YrCancerDerived_Inh	5.40E-08
84	ALL	288043.3	4011223	6.49E-08	3YrCancerDerived_Inh	6.49E-08

85	ALL	288217	4011441	1.53E-07	3YrCancerDerived_Inh	1.53E-07
86	ALL	288413.1	4011304	1.83E-07	3YrCancerDerived_Inh	1.83E-07
87	ALL	288797.8	4011332	3.83E-07	3YrCancerDerived_Inh	3.83E-07
88	ALL	289060.8	4011272	3.93E-07	3YrCancerDerived_Inh	3.93E-07
89	ALL	289242	4011456	4.09E-07	3YrCancerDerived_Inh	4.09E-07
90	ALL	288956.6	4011518	6.28E-07	3YrCancerDerived_Inh	6.28E-07
91	ALL	289217.2	4011731	3.74E-07	3YrCancerDerived_Inh	3.74E-07
92	ALL	289078.2	4011875	4.58E-07	3YrCancerDerived_Inh	4.58E-07
93	ALL	289187.4	4012089	2.33E-07	3YrCancerDerived_Inh	2.33E-07
94	ALL	288884.6	4012084	5.54E-07	3YrCancerDerived_Inh	5.54E-07
95	ALL	289063.3	4012322	1.39E-07	3YrCancerDerived_Inh	1.39E-07
96	ALL	289202.3	4012563	6.01E-08	3YrCancerDerived_Inh	6.01E-08
97	ALL	288988.9	4012545	8.91E-08	3YrCancerDerived_Inh	8.91E-08
98	ALL	289031.1	4012759	6.68E-08	3YrCancerDerived_Inh	6.68E-08
99	ALL	288976.5	4012935	6.85E-08	3YrCancerDerived_Inh	6.85E-08
100	ALL	288780.4	4013019	8.27E-08	3YrCancerDerived_Inh	8.27E-08

**HARP - Air Dispersion Modeling and Risk Tool v22118
**3/20/2025
**Exported Risk Results

REC	GRP	X	Y	SCENARIO	RESP	MAXHI
1	ALL	288124.1	4012390	NonCancerChronicDerived_Inh	0.0016536	0.0016536
2	ALL	288075.4	4012323	NonCancerChronicDerived_Inh	0.0018204	0.0018204
3	ALL	288073.8	4012265	NonCancerChronicDerived_Inh	0.0018293	0.0018293
4	ALL	288072.3	4012189	NonCancerChronicDerived_Inh	0.0017182	0.0017182
5	ALL	288073.8	4012054	NonCancerChronicDerived_Inh	0.001183	0.001183
6	ALL	288072.3	4012005	NonCancerChronicDerived_Inh	0.00077449	0.00077449
7	ALL	288019	4011883	NonCancerChronicDerived_Inh	0.00016936	0.00016936
8	ALL	288174.4	4011907	NonCancerChronicDerived_Inh	0.00064556	0.00064556
9	ALL	288384.8	4011929	NonCancerChronicDerived_Inh	0.0018861	0.0018861
10	ALL	288441.2	4011877	NonCancerChronicDerived_Inh	0.0013411	0.0013411
11	ALL	288593.6	4011964	NonCancerChronicDerived_Inh	0.0013952	0.0013952
12	ALL	288582.9	4012037	NonCancerChronicDerived_Inh	0.00145	0.00145
13	ALL	288541.7	4012194	NonCancerChronicDerived_Inh	0.001504	0.001504
14	ALL	288537.2	4012243	NonCancerChronicDerived_Inh	0.0013146	0.0013146
15	ALL	288523.5	4012319	NonCancerChronicDerived_Inh	0.00088187	0.00088187
16	ALL	288515.8	4012357	NonCancerChronicDerived_Inh	0.00058676	0.00058676
17	ALL	288515.8	4012412	NonCancerChronicDerived_Inh	0.00035821	0.00035821
18	ALL	288499.1	4012505	NonCancerChronicDerived_Inh	0.00023874	0.00023874
19	ALL	288144	4012451	NonCancerChronicDerived_Inh	0.0010139	0.0010139
20	ALL	288026.6	4012343	NonCancerChronicDerived_Inh	0.0014115	0.0014115
21	ALL	288006.8	4012271	NonCancerChronicDerived_Inh	0.0013015	0.0013015
22	ALL	287996.1	4012192	NonCancerChronicDerived_Inh	0.0011219	0.0011219
23	ALL	287980.9	4012154	NonCancerChronicDerived_Inh	0.00093706	0.00093706
24	ALL	288012.9	4012050	NonCancerChronicDerived_Inh	0.00072614	0.00072614
25	ALL	288011.4	4011997	NonCancerChronicDerived_Inh	0.00045988	0.00045988
26	ALL	287938.2	4011813	NonCancerChronicDerived_Inh	9.82E-05	9.82E-05
27	ALL	287915.3	4011671	NonCancerChronicDerived_Inh	5.77E-05	5.77E-05
28	ALL	288040.3	4011799	NonCancerChronicDerived_Inh	0.00012087	0.00012087
29	ALL	288307	4011819	NonCancerChronicDerived_Inh	0.0006066	0.0006066
30	ALL	288611.9	4011860	NonCancerChronicDerived_Inh	0.0010757	0.0010757
31	ALL	288706.4	4011872	NonCancerChronicDerived_Inh	0.00081902	0.00081902
32	ALL	288709.4	4011932	NonCancerChronicDerived_Inh	0.00082459	0.00082459
33	ALL	288685	4012089	NonCancerChronicDerived_Inh	0.00072748	0.00072748
34	ALL	288674.3	4012284	NonCancerChronicDerived_Inh	0.00031743	0.00031743
35	ALL	288671.3	4012465	NonCancerChronicDerived_Inh	0.00013433	0.00013433
36	ALL	288610.3	4012587	NonCancerChronicDerived_Inh	0.00012627	0.00012627
37	ALL	288139.4	4012642	NonCancerChronicDerived_Inh	0.00032624	0.00032624
38	ALL	288075.4	4012555	NonCancerChronicDerived_Inh	0.00054977	0.00054977
39	ALL	287860.5	4012750	NonCancerChronicDerived_Inh	0.0002712	0.0002712
40	ALL	287673	4012709	NonCancerChronicDerived_Inh	0.00028106	0.00028106

41	ALL	287962.6	4012340	NonCancerChronicDerived_Inh	0.0010601	0.0010601
42	ALL	287781.2	4012342	NonCancerChronicDerived_Inh	0.00054821	0.00054821
43	ALL	287910.8	4012273	NonCancerChronicDerived_Inh	0.0008436	0.0008436
44	ALL	287813.2	4012252	NonCancerChronicDerived_Inh	0.00055863	0.00055863
45	ALL	287834.6	4012153	NonCancerChronicDerived_Inh	0.00046766	0.00046766
46	ALL	287915.3	4012095	NonCancerChronicDerived_Inh	0.00052662	0.00052662
47	ALL	287793.4	4012032	NonCancerChronicDerived_Inh	0.00024646	0.00024646
48	ALL	287912.3	4012022	NonCancerChronicDerived_Inh	0.00034562	0.00034562
49	ALL	287830	4011945	NonCancerChronicDerived_Inh	0.00016778	0.00016778
50	ALL	287828.5	4011828	NonCancerChronicDerived_Inh	8.85E-05	8.85E-05
51	ALL	288281.1	4011665	NonCancerChronicDerived_Inh	0.00021042	0.00021042
52	ALL	288451.8	4011784	NonCancerChronicDerived_Inh	0.00074923	0.00074923
53	ALL	288364.9	4011595	NonCancerChronicDerived_Inh	0.00021197	0.00021197
54	ALL	288640.8	4011721	NonCancerChronicDerived_Inh	0.00064998	0.00064998
55	ALL	288662.2	4011575	NonCancerChronicDerived_Inh	0.00038199	0.00038199
56	ALL	288846.6	4011671	NonCancerChronicDerived_Inh	0.00047032	0.00047032
57	ALL	288854.2	4011820	NonCancerChronicDerived_Inh	0.00050369	0.00050369
58	ALL	288817.6	4011950	NonCancerChronicDerived_Inh	0.00052458	0.00052458
59	ALL	288797.8	4012214	NonCancerChronicDerived_Inh	0.00025193	0.00025193
60	ALL	288808.5	4012375	NonCancerChronicDerived_Inh	0.00010971	0.00010971
61	ALL	288796.3	4012581	NonCancerChronicDerived_Inh	7.24E-05	7.24E-05
62	ALL	288529.6	4012688	NonCancerChronicDerived_Inh	0.00011761	0.00011761
63	ALL	288741.4	4012739	NonCancerChronicDerived_Inh	6.89E-05	6.89E-05
64	ALL	288183.6	4012738	NonCancerChronicDerived_Inh	0.00019827	0.00019827
65	ALL	288252.2	4012765	NonCancerChronicDerived_Inh	0.0001568	0.0001568
66	ALL	288060.7	4012789	NonCancerChronicDerived_Inh	0.00020282	0.00020282
67	ALL	288127.7	4012903	NonCancerChronicDerived_Inh	0.00012589	0.00012589
68	ALL	287954	4013106	NonCancerChronicDerived_Inh	9.34E-05	9.34E-05
69	ALL	287733.1	4012898	NonCancerChronicDerived_Inh	0.00018488	0.00018488
70	ALL	287385.6	4012726	NonCancerChronicDerived_Inh	0.0002057	0.0002057
71	ALL	287341	4012342	NonCancerChronicDerived_Inh	0.00017599	0.00017599
72	ALL	287524.6	4012349	NonCancerChronicDerived_Inh	0.00026827	0.00026827
73	ALL	287559.3	4012178	NonCancerChronicDerived_Inh	0.00021831	0.00021831
74	ALL	287331	4012158	NonCancerChronicDerived_Inh	0.0001333	0.0001333
75	ALL	287542	4012017	NonCancerChronicDerived_Inh	0.00013391	0.00013391
76	ALL	287648.7	4011893	NonCancerChronicDerived_Inh	9.36E-05	9.36E-05
77	ALL	287363.3	4011947	NonCancerChronicDerived_Inh	8.16E-05	8.16E-05
78	ALL	287348.4	4011719	NonCancerChronicDerived_Inh	3.83E-05	3.83E-05
79	ALL	287569.3	4011612	NonCancerChronicDerived_Inh	3.63E-05	3.63E-05
80	ALL	287410.4	4011307	NonCancerChronicDerived_Inh	1.91E-05	1.91E-05
81	ALL	287611.5	4011381	NonCancerChronicDerived_Inh	2.28E-05	2.28E-05
82	ALL	287772.8	4011257	NonCancerChronicDerived_Inh	2.11E-05	2.11E-05
83	ALL	287819.9	4011414	NonCancerChronicDerived_Inh	2.83E-05	2.83E-05
84	ALL	288043.3	4011223	NonCancerChronicDerived_Inh	3.41E-05	3.41E-05

85	ALL	288217	4011441	NonCancerChronicDerived_Inh	8.01E-05	8.01E-05
86	ALL	288413.1	4011304	NonCancerChronicDerived_Inh	9.63E-05	9.63E-05
87	ALL	288797.8	4011332	NonCancerChronicDerived_Inh	0.0002011	0.0002011
88	ALL	289060.8	4011272	NonCancerChronicDerived_Inh	0.00020614	0.00020614
89	ALL	289242	4011456	NonCancerChronicDerived_Inh	0.00021484	0.00021484
90	ALL	288956.6	4011518	NonCancerChronicDerived_Inh	0.00032969	0.00032969
91	ALL	289217.2	4011731	NonCancerChronicDerived_Inh	0.00019622	0.00019622
92	ALL	289078.2	4011875	NonCancerChronicDerived_Inh	0.00024029	0.00024029
93	ALL	289187.4	4012089	NonCancerChronicDerived_Inh	0.0001223	0.0001223
94	ALL	288884.6	4012084	NonCancerChronicDerived_Inh	0.00029062	0.00029062
95	ALL	289063.3	4012322	NonCancerChronicDerived_Inh	7.30E-05	7.30E-05
96	ALL	289202.3	4012563	NonCancerChronicDerived_Inh	3.15E-05	3.15E-05
97	ALL	288988.9	4012545	NonCancerChronicDerived_Inh	4.68E-05	4.68E-05
98	ALL	289031.1	4012759	NonCancerChronicDerived_Inh	3.51E-05	3.51E-05
99	ALL	288976.5	4012935	NonCancerChronicDerived_Inh	3.59E-05	3.59E-05
100	ALL	288780.4	4013019	NonCancerChronicDerived_Inh	4.34E-05	4.34E-05

HARP Project Summary Report 3/3/2025 1:03:34 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: 24018 - QUIGLEY PARK
Project Output Directory: C:\HARP2\Projects\24018 - QUIGLEY PARK
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:1
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev		
Multi	Annual Ems	MaxHr Ems	MWAF			
	(lbs/yr)	(lbs/hr)				
AREA1	0	0	9901	DieselExhPM	1	22
0	1					

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL		
InhChronicREL	OralChronicREL	InhChronic8HRREL				
9901	DieselExhPM	1.1				5

AIR DISPERSION MODELING INFORMATION
Versions used in HARP. All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 18081
AERMAP: 18081
BPIPPRM: 04274
AERPLOT: 13329

METEOROLOGICAL INFORMATION
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:

LIST OF AIR DISPERSION FILES
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list
_____

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)
_____
AREA1CancerRisk.csv
AREA1CancerRiskSumByRec.csv
AREA1GLCList.csv
AREA1HRAInput.hra
AREA1NCAcuteRisk.csv
AREA1NCAcuteRiskSumByRec.csv
AREA1NCChronicRisk.csv
AREA1NCChronicRiskSumByRec.csv
AREA1Output.txt
AREA1PathwayRec.csv
AREA1PolDB.csv

Spatial averaging files (\sa\)
_____

4CREEKS

Vicinity Map
Santa Fe West Subdivision
City of Tulare

N

1 inch = 500 feet

Santa Fe West Subdivision Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Santa Fe West Subdivision
Construction Start Date	1/1/2026
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	24.4
Location	36.231386213082885, -119.35604588659939
County	Tulare
City	Tulare
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2742
EDFZ	9
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

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
Single Family Housing	174	Dwelling Unit	33.0	339,300	2,038,037	—	588	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-C	Water Unpaved Construction Roads
Transportation	T-32*	Orient Project Toward Transit, Bicycle, or Pedestrian Facility
Transportation	T-33*	Locate Project near Bike Path/Bike Lane
Transportation	T-34*	Provide Bike Parking
Transportation	T-35*	Provide Tra c Calming Measures
Energy	E-2	Require Energy Efficient Appliances
Energy	E-12-B	Install Electric Space Heater in Place of Natural Gas Heaters in Residences
Energy	E-13	Install Electric Ranges in Place of Gas Ranges
Energy	E-15	Require All-Electric Development
Water	W-5	Design Water-Efficient Landscapes
Area Sources	AS-1	Use Low-VOC Cleaning Supplies
Area Sources	LL-1	Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment
Area Sources	AS-2	Use Low-VOC Paints

* 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.	60.9	60.8	27.3	28.4	0.06	1.12	3.70	4.82	1.03	1.45	2.48	—	6,717	6,717	0.28	0.09	2.28	6,741

Mit.	60.8	60.8	4.48	36.2	0.06	0.12	3.70	3.82	0.12	1.45	1.57	—	6,717	6,717	0.28	0.09	2.28	6,741
% Reduced	< 0.5%	< 0.5%	84%	-27%	—	89%	—	21%	88%	—	37%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.82	3.22	29.2	29.4	0.06	1.24	7.76	9.00	1.14	3.96	5.11	—	6,703	6,703	0.28	0.09	0.06	6,728
Mit.	0.73	0.72	4.50	36.0	0.06	0.12	7.76	7.86	0.12	3.96	4.06	—	6,703	6,703	0.28	0.09	0.06	6,728
% Reduced	81%	78%	85%	-23%	—	90%	—	13%	89%	—	20%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.23	6.17	9.72	12.0	0.02	0.38	1.08	1.46	0.35	0.44	0.79	—	2,525	2,525	0.10	0.07	0.63	2,543
Mit.	5.98	5.97	2.52	13.8	0.02	0.06	1.08	1.14	0.06	0.44	0.50	—	2,525	2,525	0.10	0.07	0.63	2,543
% Reduced	4%	3%	74%	-15%	—	85%	—	22%	84%	—	37%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.14	1.13	1.77	2.19	< 0.005	0.07	0.20	0.27	0.06	0.08	0.14	—	418	418	0.02	0.01	0.10	421
Mit.	1.09	1.09	0.46	2.51	< 0.005	0.01	0.20	0.21	0.01	0.08	0.09	—	418	418	0.02	0.01	0.10	421
% Reduced	4%	3%	74%	-15%	—	85%	—	22%	84%	—	37%	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.73	3.14	27.3	28.4	0.06	1.12	3.70	4.82	1.03	1.45	2.48	—	6,717	6,717	0.28	0.09	2.28	6,741
2027	1.56	1.33	10.1	15.7	0.03	0.34	0.45	0.79	0.32	0.11	0.42	—	3,144	3,144	0.13	0.09	2.05	3,177

2028	60.9	60.8	9.56	15.5	0.03	0.31	0.45	0.75	0.28	0.11	0.39	—	3,127	3,127	0.13	0.09	1.83	3,159
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.82	3.22	29.2	29.4	0.06	1.24	7.76	9.00	1.14	3.96	5.11	—	6,703	6,703	0.28	0.09	0.06	6,728
2027	1.52	1.29	10.1	15.1	0.03	0.34	0.45	0.79	0.32	0.11	0.42	—	3,102	3,102	0.12	0.09	0.05	3,134
2028	1.46	1.24	9.63	15.0	0.03	0.31	0.45	0.75	0.28	0.11	0.39	—	3,087	3,087	0.12	0.09	0.05	3,118
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.38	1.17	9.72	12.0	0.02	0.38	1.08	1.46	0.35	0.44	0.79	—	2,525	2,525	0.10	0.05	0.47	2,543
2027	1.09	0.93	7.22	10.8	0.02	0.24	0.31	0.56	0.23	0.08	0.30	—	2,224	2,224	0.09	0.07	0.63	2,247
2028	6.23	6.17	2.73	4.28	0.01	0.09	0.11	0.20	0.08	0.03	0.11	—	820	820	0.03	0.02	0.19	828
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.25	0.21	1.77	2.19	< 0.005	0.07	0.20	0.27	0.06	0.08	0.14	—	418	418	0.02	0.01	0.08	421
2027	0.20	0.17	1.32	1.98	< 0.005	0.04	0.06	0.10	0.04	0.01	0.06	—	368	368	0.02	0.01	0.10	372
2028	1.14	1.13	0.50	0.78	< 0.005	0.02	0.02	0.04	0.02	< 0.005	0.02	—	136	136	0.01	< 0.005	0.03	137

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.74	0.74	4.48	36.2	0.06	0.12	3.70	3.82	0.12	1.45	1.57	—	6,717	6,717	0.28	0.09	2.28	6,741
2027	0.68	0.63	3.49	17.5	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,144	3,144	0.13	0.09	2.05	3,177
2028	60.8	60.8	3.45	17.3	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,127	3,127	0.13	0.09	1.83	3,159
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.73	0.72	4.50	36.0	0.06	0.12	7.76	7.86	0.12	3.96	4.06	—	6,703	6,703	0.28	0.09	0.06	6,728
2027	0.64	0.59	3.56	17.0	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,102	3,102	0.12	0.09	0.05	3,134

2028	0.62	0.58	3.52	16.8	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,087	3,087	0.12	0.09	0.05	3,118
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.42	0.40	2.30	13.8	0.02	0.06	1.08	1.14	0.06	0.44	0.50	—	2,525	2,525	0.10	0.05	0.47	2,543
2027	0.46	0.42	2.52	12.2	0.02	0.06	0.31	0.37	0.06	0.08	0.13	—	2,224	2,224	0.09	0.07	0.63	2,247
2028	5.98	5.97	0.98	4.73	0.01	0.02	0.11	0.13	0.02	0.03	0.04	—	820	820	0.03	0.02	0.19	828
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.08	0.07	0.42	2.51	< 0.005	0.01	0.20	0.21	0.01	0.08	0.09	—	418	418	0.02	0.01	0.08	421
2027	0.08	0.08	0.46	2.22	< 0.005	0.01	0.06	0.07	0.01	0.01	0.02	—	368	368	0.02	0.01	0.10	372
2028	1.09	1.09	0.18	0.86	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	136	136	0.01	< 0.005	0.03	137

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.	15.1	14.5	4.62	61.1	0.10	0.07	9.76	9.83	0.07	2.47	2.54	109	14,182	14,291	11.7	0.55	33.8	14,782
Mit.	13.6	13.1	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	109	14,027	14,135	11.7	0.55	33.8	14,626
% Reduced	10%	10%	2%	16%	—	7%	—	< 0.5%	5%	—	< 0.5%	—	1%	1%	< 0.5%	< 0.5%	—	1%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.4	12.9	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	13,086	13,195	11.8	0.60	3.24	13,671
Mit.	12.9	12.4	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	12,953	13,061	11.8	0.59	3.24	13,536
% Reduced	4%	4%	—	—	—	—	—	—	—	—	—	—	1%	1%	< 0.5%	< 0.5%	—	1%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	13.8	13.3	4.85	45.8	0.10	0.07	9.39	9.45	0.06	2.38	2.44	109	13,107	13,215	11.8	0.56	15.7	13,692
Mit.	12.8	12.4	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	109	12,962	13,071	11.7	0.56	15.7	13,547
% Reduced	7%	7%	1%	11%	—	3%	—	< 0.5%	3%	—	< 0.5%	—	1%	1%	< 0.5%	< 0.5%	—	1%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.53	2.44	0.89	8.36	0.02	0.01	1.71	1.73	0.01	0.43	0.45	18.0	2,170	2,188	1.95	0.09	2.59	2,267
Mit.	2.34	2.26	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	18.0	2,146	2,164	1.94	0.09	2.59	2,243
% Reduced	7%	7%	1%	11%	< 0.5%	3%	—	< 0.5%	3%	—	< 0.5%	—	1%	1%	< 0.5%	< 0.5%	—	1%

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	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Area	8.75	8.70	0.09	9.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	126	126	0.01	< 0.005	—	127
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,233	3,233	0.31	0.04	—	3,251
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	15.1	14.5	4.62	61.1	0.10	0.07	9.76	9.83	0.07	2.47	2.54	109	14,182	14,291	11.7	0.55	33.8	14,782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Area	7.84	7.84	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,233	3,233	0.31	0.04	—	3,251
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172

Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	13.4	12.9	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	13,086	13,195	11.8	0.60	3.24	13,671
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.55	5.08	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	—	9,729	9,729	0.52	0.49	13.2	9,900
Area	8.29	8.27	0.05	4.88	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	35.4	35.4	< 0.005	< 0.005	—	35.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,233	3,233	0.31	0.04	—	3,251
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	13.8	13.3	4.85	45.8	0.10	0.07	9.39	9.45	0.06	2.38	2.44	109	13,107	13,215	11.8	0.56	15.7	13,692
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Area	1.51	1.51	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.86	5.86	< 0.005	< 0.005	—	5.88
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	535	535	0.05	0.01	—	538
Water	—	—	—	—	—	—	—	—	—	—	—	2.35	18.2	20.6	0.24	0.01	—	28.4
Waste	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	2.53	2.44	0.89	8.36	0.02	0.01	1.71	1.73	0.01	0.43	0.45	18.0	2,170	2,188	1.95	0.09	2.59	2,267

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	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Area	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,140	3,140	0.30	0.04	—	3,158
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	13.6	13.1	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	109	14,027	14,135	11.7	0.55	33.8	14,626
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Area	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,136	3,136	0.30	0.04	—	3,154
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	12.9	12.4	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	12,953	13,061	11.8	0.59	3.24	13,536
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.55	5.08	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	—	9,729	9,729	0.52	0.49	13.2	9,900
Area	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	22.3	22.3	< 0.005	< 0.005	—	22.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,138	3,138	0.30	0.04	—	3,156
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	12.8	12.4	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	109	12,962	13,071	11.7	0.56	15.7	13,547
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Area	1.33	1.33	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	519	519	0.05	0.01	—	523
Water	—	—	—	—	—	—	—	—	—	—	—	2.35	12.2	14.5	0.24	0.01	—	22.3

Waste	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	2.34	2.26	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	18.0	2,146	2,164	1.94	0.09	2.59	2,243

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.17	1.60	1.58	< 0.005	0.07	—	0.07	0.06	—	0.06	—	290	290	0.01	< 0.005	—	291

Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.1	48.1	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.5	91.5	0.01	< 0.005	0.01	93.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	—	5.20	5.20	< 0.005	< 0.005	0.01	5.29
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	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.88

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.14	1.55	< 0.005	0.01	—	0.01	0.01	—	0.01	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	48.1	48.1	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.5	91.5	0.01	< 0.005	0.01	93.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	—	5.20	5.20	< 0.005	< 0.005	0.01	5.29
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	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	3.36	3.40	0.01	0.14	—	0.14	0.13	—	0.13	—	814	814	0.03	0.01	—	816

Dust From Material Movement	—	—	—	—	—	—	0.44	0.44	—	0.18	0.18	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.61	0.62	< 0.005	0.03	—	0.03	0.02	—	0.02	—	135	135	0.01	< 0.005	—	135
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.11	0.10	0.05	0.88	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	118	118	0.01	0.01	0.42	120
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.69	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	105	105	0.01	0.01	0.01	106
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	0.01	0.01	0.01	0.09	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.4	13.4	< 0.005	< 0.005	0.02	13.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.21	2.21	< 0.005	< 0.005	< 0.005	2.25
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

3.4. Grading (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	0.55	4.36	0.01	0.02	—	0.02	0.02	—	0.02	—	814	814	0.03	0.01	—	816
Dust From Material Movement	—	—	—	—	—	—	0.44	0.44	—	0.18	0.18	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.80	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	135	135	0.01	< 0.005	—	135
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.11	0.10	0.05	0.88	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	118	118	0.01	0.01	0.42	120
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.69	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	105	105	0.01	0.01	0.01	106

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	0.01	0.01	0.01	0.09	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.4	13.4	< 0.005	< 0.005	0.02	13.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.21	2.21	< 0.005	< 0.005	< 0.005	2.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	0.48	4.42	5.81	0.01	0.17	—	0.17	0.16	—	0.16	—	1,074	1,074	0.04	0.01	—	1,078
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.81	1.06	< 0.005	0.03	—	0.03	0.03	—	0.03	—	178	178	0.01	< 0.005	—	178
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.33	0.31	0.17	2.75	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	370	370	0.02	0.02	1.32	377
Vendor	0.02	0.02	0.54	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	392	392	0.01	0.06	0.96	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.29	0.26	0.22	2.16	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	327	327	0.03	0.02	0.03	333
Vendor	0.02	0.01	0.58	0.21	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	393	393	0.01	0.06	0.03	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.13	0.13	0.09	1.00	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	152	152	0.01	0.01	0.25	155
Vendor	0.01	0.01	0.25	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	176	176	< 0.005	0.03	0.19	184

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.2	25.2	< 0.005	< 0.005	0.04	25.6
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.1	29.1	< 0.005	< 0.005	0.03	30.5
Hauling	0.00	0.00	0.00	0.00	0.00	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. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.15	1.26	6.64	0.01	0.03	—	0.03	0.03	—	0.03	—	1,074	1,074	0.04	0.01	—	1,078

Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.03	0.03	0.23	1.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	178	178	0.01	< 0.005	—	178
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.33	0.31	0.17	2.75	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	370	370	0.02	0.02	1.32	377
Vendor	0.02	0.02	0.54	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	392	392	0.01	0.06	0.96	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.29	0.26	0.22	2.16	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	327	327	0.03	0.02	0.03	333
Vendor	0.02	0.01	0.58	0.21	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	393	393	0.01	0.06	0.03	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.13	0.13	0.09	1.00	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	152	152	0.01	0.01	0.25	155
Vendor	0.01	0.01	0.25	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	176	176	< 0.005	0.03	0.19	184
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.2	25.2	< 0.005	< 0.005	0.04	25.6
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.1	29.1	< 0.005	< 0.005	0.03	30.5
Hauling	0.00	0.00	0.00	0.00	0.00	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. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.71	9.24	0.02	0.24	—	0.24	0.22	—	0.22	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	1.22	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	283	283	0.01	< 0.005	—	284

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31	0.28	0.15	2.53	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	362	362	0.02	0.02	1.19	369
Vendor	0.02	0.02	0.52	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	384	384	0.01	0.06	0.86	403
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.27	0.25	0.19	1.98	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	321	321	0.02	0.02	0.03	326
Vendor	0.02	0.01	0.55	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	385	385	0.01	0.06	0.02	402
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.19	0.18	0.13	1.46	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	238	238	0.02	0.01	0.37	242
Vendor	0.02	0.01	0.38	0.14	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	275	275	0.01	0.04	0.26	287
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.04	0.03	0.02	0.27	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.3	39.3	< 0.005	< 0.005	0.06	40.0
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	45.4	45.4	< 0.005	0.01	0.04	47.6
Hauling	0.00	0.00	0.00	0.00	0.00	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. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.23	2.01	10.6	0.02	0.05	—	0.05	0.05	—	0.05	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.37	1.93	< 0.005	0.01	—	0.01	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.31	0.28	0.15	2.53	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	362	362	0.02	0.02	1.19	369
Vendor	0.02	0.02	0.52	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	384	384	0.01	0.06	0.86	403
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.27	0.25	0.19	1.98	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	321	321	0.02	0.02	0.03	326
Vendor	0.02	0.01	0.55	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	385	385	0.01	0.06	0.02	402
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.19	0.18	0.13	1.46	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	238	238	0.02	0.01	0.37	242
Vendor	0.02	0.01	0.38	0.14	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	275	275	0.01	0.04	0.26	287
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.04	0.03	0.02	0.27	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.3	39.3	< 0.005	< 0.005	0.06	40.0
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	45.4	45.4	< 0.005	0.01	0.04	47.6
Hauling	0.00	0.00	0.00	0.00	0.00	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 (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.87	2.71	< 0.005	0.06	—	0.06	0.06	—	0.06	—	502	502	0.02	< 0.005	—	504
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.05	0.04	0.34	0.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	83.1	83.1	< 0.005	< 0.005	—	83.4
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	0.28	0.27	0.14	2.33	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	355	355	0.02	0.01	1.08	361
Vendor	0.02	0.01	0.50	0.18	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.76	393
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.25	0.24	0.18	1.83	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	314	314	0.01	0.02	0.03	320
Vendor	0.02	0.01	0.53	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.02	392
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.05	0.05	0.03	0.40	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	68.3	68.3	< 0.005	< 0.005	0.10	69.5
Vendor	< 0.005	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.5	78.5	< 0.005	0.01	0.07	82.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.01	13.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	0.59	3.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	502	502	0.02	< 0.005	—	504
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	83.1	83.1	< 0.005	< 0.005	—	83.4
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	0.28	0.27	0.14	2.33	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	355	355	0.02	0.01	1.08	361
Vendor	0.02	0.01	0.50	0.18	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.76	393
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.25	0.24	0.18	1.83	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	314	314	0.01	0.02	0.03	320
Vendor	0.02	0.01	0.53	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.02	392
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.05	0.05	0.03	0.40	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	68.3	68.3	< 0.005	< 0.005	0.10	69.5
Vendor	< 0.005	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.5	78.5	< 0.005	0.01	0.07	82.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.01	13.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.69	6.63	9.91	0.01	0.26	—	0.26	0.24	—	0.24	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.00	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	0.07	0.64	0.95	< 0.005	0.02	—	0.02	0.02	—	0.02	—	145	145	0.01	< 0.005	—	145

Paving	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	0.12	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Paving	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	0.07	0.06	0.03	0.56	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	85.0	85.0	< 0.005	< 0.005	0.26	86.5
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.49	7.49	< 0.005	< 0.005	0.01	7.62
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	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26
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

3.12. Paving (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	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	0.02	0.02	0.19	1.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	145	145	0.01	< 0.005	—	145
Paving	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	< 0.005	< 0.005	0.03	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Paving	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	0.07	0.06	0.03	0.56	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	85.0	85.0	< 0.005	< 0.005	0.26	86.5
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.49	7.49	< 0.005	< 0.005	0.01	7.62
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	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26
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

3.13. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134

Architectural Coating	60.7	60.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.8	12.8	< 0.005	< 0.005	—	12.8
Architectural Coatings	5.82	5.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.12	2.12	< 0.005	< 0.005	—	2.13
Architectural Coatings	1.06	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	0.05	0.03	0.47	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.0	71.0	< 0.005	< 0.005	0.22	72.2
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
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	—	6.25	6.25	< 0.005	< 0.005	0.01	6.36
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	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.05
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

3.14. Architectural Coating (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	60.7	60.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.8	12.8	< 0.005	< 0.005	—	12.8
Architectural Coatings	5.82	5.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.12	2.12	< 0.005	< 0.005	—	2.13
Architectural Coatings	1.06	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	0.05	0.03	0.47	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.0	71.0	< 0.005	< 0.005	0.22	72.2
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
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	—	6.25	6.25	< 0.005	< 0.005	0.01	6.36
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	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.05
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Total	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Total	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Total	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Total	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Total	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Total	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	535	535	0.05	0.01	—	538
Total	—	—	—	—	—	—	—	—	—	—	—	—	535	535	0.05	0.01	—	538

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,140	3,140	0.30	0.04	—	3,158
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,140	3,140	0.30	0.04	—	3,158

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,136	3,136	0.30	0.04	—	3,154
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,136	3,136	0.30	0.04	—	3,154
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	519	519	0.05	0.01	—	523
Total	—	—	—	—	—	—	—	—	—	—	—	—	519	519	0.05	0.01	—	523

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Consumer Products	7.26	7.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.91	0.86	0.09	9.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.4	26.4	< 0.005	< 0.005	—	26.5
Total	8.75	8.70	0.09	9.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	126	126	0.01	< 0.005	—	127
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Consumer Products	7.26	7.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.84	7.84	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72

Consumer Products	1.33	1.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.08	0.08	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.15	2.15	< 0.005	< 0.005	—	2.16
Total	1.51	1.51	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.86	5.86	< 0.005	< 0.005	—	5.88

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Consumer Products	6.72	6.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100

Consumer Product	6.72	6.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72
Consumer Products	1.23	1.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.33	1.33	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.35	18.2	20.6	0.24	0.01	—	28.4
Total	—	—	—	—	—	—	—	—	—	—	—	2.35	18.2	20.6	0.24	0.01	—	28.4

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.35	12.2	14.5	0.24	0.01	—	22.3
Total	—	—	—	—	—	—	—	—	—	—	—	2.35	12.2	14.5	0.24	0.01	—	22.3

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Total	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Total	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Site Preparation	Site Preparation	2/13/2026	3/13/2026	5.00	20.0	—
Grading	Grading	3/14/2026	5/16/2026	5.00	45.0	—

Building Construction	Building Construction	5/17/2026	4/16/2028	5.00	500	—
Paving	Paving	4/17/2028	6/5/2028	5.00	35.0	—
Architectural Coating	Architectural Coating	6/6/2028	7/25/2028	5.00	35.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	6.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	62.6	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	18.6	6.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	6.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	12.5	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	6.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	62.6	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	18.6	6.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	6.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	12.5	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	687,083	229,028	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	30.0	0.00	—
Grading	—	—	135	0.00	—
Paving	0.00	0.00	0.00	0.00	1.92

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	1.92	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005
2028	0.00	532	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
Single Family Housing	1,643	1,660	1,488	592,367	13,711	13,856	12,418	4,944,690

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	1,643	1,660	1,488	592,367	13,711	13,856	12,418	4,944,690

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	87
No Fireplaces	87
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	87
No Fireplaces	87
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

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)
687082.5	229,028	0.00	0.00	—

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)
Single Family Housing	3,408,100	346	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)
Single Family Housing	3,305,898	346	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)
Single Family Housing	7,405,901	35,949,164

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	7,405,901	20,025,491

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	176	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	176	—

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
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

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

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

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	33.9	annual days of extreme heat
Extreme Precipitation	0.95	annual days with precipitation above 20 mm
Sea Level Rise	—	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	0	0	N/A
Drought	3	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	1	1	2
Drought	3	1	1	3
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	1	1	4

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	84.6
AQ-PM	97.4
AQ-DPM	26.6
Drinking Water	96.9
Lead Risk Housing	51.1
Pesticides	82.1
Toxic Releases	50.3
Traffic	19.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	98.0
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	23.9
Solid Waste	92.8
Sensitive Population	—
Asthma	71.3

Cardio-vascular	83.0
Low Birth Weights	43.8
Socioeconomic Factor Indicators	—
Education	89.1
Housing	2.99
Linguistic	88.1
Poverty	74.6
Unemployment	43.1

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	26.57513153
Employed	21.14718337
Median HI	40.93417169
Education	—
Bachelor's or higher	17.50288721
High school enrollment	100
Preschool enrollment	30.74554087
Transportation	—
Auto Access	75.69613756
Active commuting	66.90619787
Social	—
2-parent households	71.41023996
Voting	69.20313102
Neighborhood	—
Alcohol availability	90.51713076

Park access	11.08687283
Retail density	4.760682664
Supermarket access	10.63775183
Tree canopy	8.07134608
Housing	—
Homeownership	44.53997177
Housing habitability	72.34697806
Low-inc homeowner severe housing cost burden	65.63582702
Low-inc renter severe housing cost burden	94.52072373
Uncrowded housing	40.97266778
Health Outcomes	—
Insured adults	33.59425125
Arthritis	0.0
Asthma ER Admissions	21.4
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	30.3
Cognitively Disabled	35.0
Physically Disabled	57.4
Heart Attack ER Admissions	23.4
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	97.3

Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	12.4
Elderly	60.7
English Speaking	43.9
Foreign-born	50.6
Outdoor Workers	3.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.0
Traffic Density	33.2
Traffic Access	0.0
Other Indices	—
Hardship	75.7
Other Decision Support	—
2016 Voting	64.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	82.0
Healthy Places Index Score for Project Location (b)	35.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes

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

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	The Project Site is located within the City Limits and is adjacent to other urban land uses.
Characteristics: Utility Information	Electricity utility provider as stated in the site plan.
Land Use	Parcel acreage as per the Site Plan/APN map.
Construction: Construction Phases	No demolition phase as there are no existing structures on site.
Operations: Hearths	No wood stoves or gas powered fireplaces according to the site plan.
Operations: Energy Use	The development will not be connected to natural gas lines and will solely be powered by electricity. The energy use from natural gas was converted to kilowatts then added to the default kilowatt electricity demand to account for additional electricity usage.
Operations: Fleet Mix	The district accepted fleet mix data for the operational year (2029).

Appendix B

Health Risk Assessment

Technical Report

Health Risk Assessment
For California Environmental Quality Act (CEQA)

Project Name:

Santa Fe West Subdivision
Tulare, CA

Prepared for:

4Creeks, Inc.
Visalia, CA

Author:

Core Environmental Consulting
Clovis, CA

Lead Agency:

City of Tulare

Date of Preparation:

March 2025

CORE
ENVIRONMENTAL
CONSULTING

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1 Executive Summary

This technical report has been prepared to summarize the background, methodology, and results of a Health Risk Assessment (HRA) for the Santa Fe West Subdivision project (Project) in Tulare, California. The Project proposes construction of 174 single-family homes on the southeast corner of N. E Street and Zumwalt Avenue.

The Project is subject to the California Environmental Quality Act (CEQA), with City of Tulare (City) serving as the Lead Agency pursuant to the *CEQA Statute and Guidelines*[1] (CEQA Guidelines). An Initial Study is in progress and this HRA was completed to assess the potential significance of Toxic Air Contaminants (TAC) on nearby sensitive receptors.

The Project site is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD), which oversees the assessment of health risk associated with Toxic Air Contaminant (TAC) emissions from new development in the San Joaquin Valley Air Basin (SJVAB). SJVAPCD lays out a basic framework for understanding and assessing health risk, under CEQA, in its *Guidance for Assessing and Mitigating Air Quality Impacts*[2] (GAMAQI). Projects that would either place a new source of TAC in the vicinity of existing sensitive receptors, or would place new sensitive receptors in the vicinity of existing sources of TAC, must be assessed to determine whether the resulting health risk to sensitive receptors would exceed SJVAPCD established thresholds of significance for carcinogenic, acute, and chronic risk.

This HRA was prepared in accordance with the guidelines outlined in the Office of Environmental Health Hazard Assessment (OEHHA) *Guidance Manual for Preparation of Health Risk Assessments*[3], SJVAPCD Policy *APR 1906 – Framework for Performing Health Risk Assessments*[4], and SJVAPCD *Guidance for Air Dispersion Modeling*[5].

Construction health risk, associated with diesel particulate matter (DPM) emissions from construction vehicle and equipment use, was modeled using the USEPA *American Meteorological Society/EPA Regulatory model* (AERMOD) and CARB Hotspots Analysis and Reporting Program (HARP2) *Air Dispersion Modeling and Risk Tool*[6] (ADMRT).

Mitigation Measure HRA-1 (Tier 4 Engine Controls for Off-Road Equipment) was incorporated to ensure calculated risks remain less than significant. The calculated health risks for mitigated Project construction DPM are below the SJVAPCD thresholds of significance. Therefore, the Project would not expose sensitive receptors to substantial pollutant concentrations, and related impacts would be *less than significant with mitigation incorporated*.

[1] (Association of Environmental Professionals, 2025)
[2] (San Joaquin Valley Air Pollution Control District, 2015)
[3] (Office of Environmental Health Hazard Asssessment, 2015)
[4] (San Joaquin Valley Air Pollution Control District, 2020)
[5] (San Joaquin Valley Air Pollution Control District, 2022a)
[6] (California Air Resources Board, 2022a)

2 Project Description

The Project proposes to subdivide a 32.97-acre site in the western part of Tulare, on the southeast corner of N. E Street and Zumwalt Avenue, for 174 single-family homes. Infrastructure improvements would include pubic streets, utilities, and a temporary on-site stormwater basin. Approximately 2.36 acres would be dedicated to park space. The site, currently zoned R-1-8 (8,000 sq. ft. minimum lot size) and used as farmland, would be rezoned to R-1-5 (5,000 sq. ft. minimum lot area). Lot sizes would range from 5,000 sq. ft. to 15,091 sq. ft., with a gross density of 5.27 units per acre.

The development would provide street interconnectivity with existing residential areas to the west and address local housing needs.

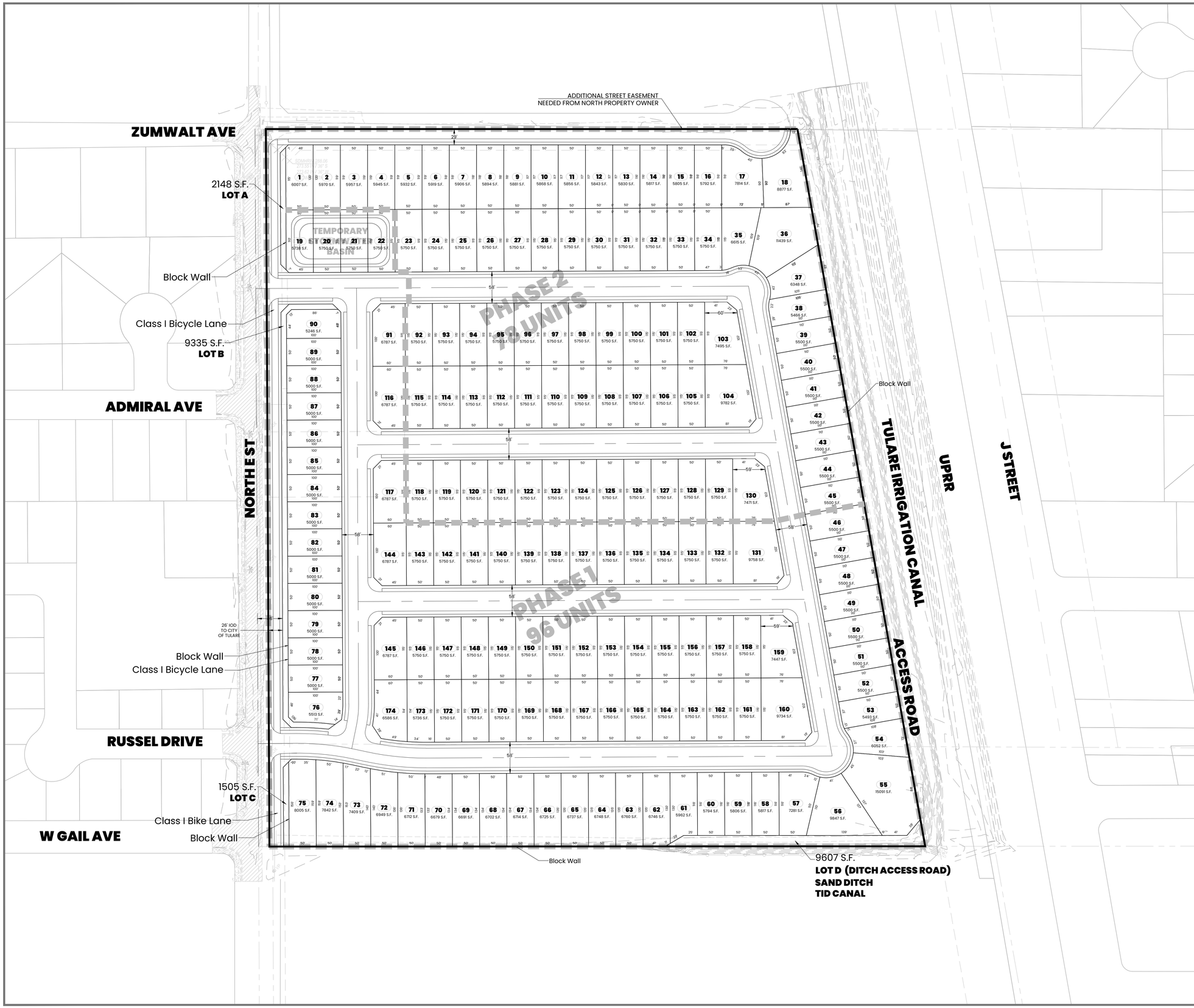
Surrounding land uses include:

- Agricultural to the north
- Residential to the west
- Educational (Los Tules Middle School) to the southwest
- Industrial to the south
- A combination of commercial and residential to the east, across the Tulare Irrigation Canal and the UPRR Railroad

According to the schedule included in the *California Emissions Estimator Model* (CalEEMod) analysis, construction is expected to last 2-3 years, potentially starting as early as January 2026 and finishing in July 2028.

A more detailed project description is provided in the Initial Study. A Vicinity Map and Tentative Subdivision Map are included below as Figure 1 and Figure 2, respectively.

CORE ENVIRONMENTAL CONSULTING Core Environmental Consulting Clovis, CA 93612 (559) 202-3941	PROJECT NAME **Santa Fe West Subdivision**	DATE **3/20/25**	SCALE **NOT TO SCALE**	**FIGURE 1** **VICINITY MAP**
	PROJECT NUMBER **24013**	DRAWN BY **JM**	LAT/LONG **36.231321, -119.355838**	



January 14, 2024

SANTA FE WEST SUBDIVISION

CONCEPT 3

BEING A PORTION OF PARCELS 8 AND 9, RECORDED IN BOOK 164 AT PAGE 100, TCR. OF PARCEL MAP 4798, RECORDED IN BOOK 103 OF MAPS, AT PAGE 28, TCR. LOCATED IN THE NORTHWEST $\frac{1}{4}$ OF THE SOUTHEAST $\frac{1}{4}$ OF SECTION 34, TOWNSHIP 19 SOUTH, RANGE 24 EAST, MDB&M, IN THE CITY OF TULARE, COUNTY OF TULARE, STATE OF CALIFORNIA

ENTITLEMENTS REQUIRED:

- TENTATIVE SUBDIVISION MAP
- GENERAL PLAN AMENDMENT

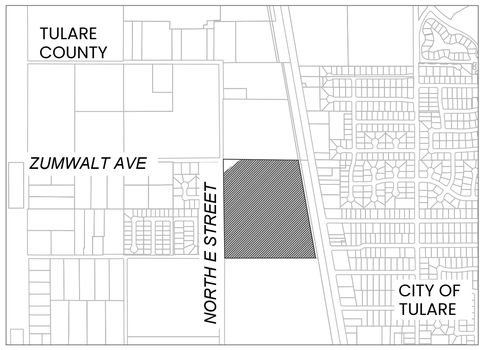
SITE INFORMATION:

APN:	164-100-008, 009
TOTAL AREA:	±32.97 AC. (GROSS)
FLOOD ZONE:	N/A
JURISDICTION:	CITY OF TULARE
EXISTING ZONING:	R-1-8, R-1-12
PROPOSED ZONING:	R-1-5 (OR R-1-4)*
EXISTING GENERAL PLAN:	LOW DENSITY RESIDENTIAL
PROPOSED GENERAL PLAN:	LOW DENSITY RESIDENTIAL
EXISTING USE:	VACANT
PROPOSED USE:	SINGLE-FAMILY RESIDENTIAL (174 lots)

UTILITIES:

SEWER SERVICE:	CITY OF TULARE
WATER SERVICE:	CITY OF TULARE
STORMWATER:	CITY OF TULARE (WITH TEMPORARY ON-SITE STORMWATER BASIN)
GAS SERVICE:	SOUTHERN CALIFORNIA GAS
ELEC. SERVICE:	SOUTHERN CALIFORNIA EDISON
REFUSE SERVICE:	CITY OF TULARE

*PROPOSED ZONING IS DEPENDANT ON OUTCOME OF ZONING ORDINANCE LITIGATION



VICINITY MAP

NORTH

80' 0' 80'

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3 Health Risk Assessment Setting

3.1 San Joaquin Valley Air Pollution Control District

The Project is located in the San Joaquin Valley Air Basin (SJVAB), which consists of eight counties: Fresno, Kern (western and central), Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. Air pollution in the SJVAB can be attributed to both human-related (anthropogenic) and natural (biogenic) activities that produce emissions.

Area and stationary sources within SJVAB are under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). An overview of important air pollutants, and SJVPACD roles in controlling them, is provided in the SJVAPCD *Guidance for Assessing and Mitigating Air Quality Impacts*[7] (GAMAQI), along with in-depth discussions on the meteorology and geography that contribute to unhealthy levels of air pollution. This HRA focuses on Toxic Air Contaminants (TAC).

Toxic Air Contaminants (TAC), as defined by the California Health & Safety Code (CH&SC) §44321, are listed in Appendices AI and AII in AB 2588 Air Toxic "Hot Spots" and Assessment Act's Emissions Inventory Criteria and Guideline Regulation document. Potential health impacts from TACs are generally categorized into two groups: carcinogenic (cancer causing) effects and non-carcinogenic (non-cancer-causing) effects.

The non-carcinogenic effects can be further divided into long-term (chronic) health effects such as birth defects, neurological damage, or genetic damage; and short- term (acute) effects such as eye irritation, respiratory irritation, and nausea. The California TAC list identifies about 700 plus pollutants. Carcinogenic and/or non-carcinogenic toxicity criteria have been established for a subset of these pollutants by OEHHA, as required by CH&SC §44360. TACs used in determining the potential exposure to the public should not be confused with the 189 Hazardous Air Pollutants (HAP) listed in the Clean Air Act.

SJVAPCD oversees the assessment of health risk associated with TAC emissions from new development in the SJVAB. SJVAPCD lays out a basic framework for understanding and assessing health risk, under CEQA, in the GAMAQI.

The location of a development project is a major factor in determining whether the project will result in localized air quality impacts. The potential for adverse air quality impacts increases as the distance between the source of emissions and receptors decreases. Receptors include sensitive receptors and worker receptors. Sensitive receptors refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses where sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (these sensitive land uses may also be referred to as sensitive receptors). Worker receptors refer to employees and locations where people work. Impacts on sensitive receptors are of particular concern, because they are the people most vulnerable to the effects of air pollution.

[7] (San Joaquin Valley Air Pollution Control District, 2015)

From a health risk perspective there are two types of land use projects that have the potential to cause long-term public health risk impacts:

Type A Projects: Land use projects that will place new toxic sources in the vicinity of existing receptors.

Type B Projects: Land use projects that will place new receptors in the vicinity of existing toxics sources.

Projects of either type must be assessed to determine whether the resulting health risk to sensitive receptors would exceed SJVAPCD established thresholds of significance for carcinogenic, non-carcinogenic acute, and non-carcinogenic chronic risk.

The OEHHA *Risk Assessment Guidelines* are the standards for estimating health risks. OEHHA is responsible for developing and providing toxicological and medical information relevant to decisions involving public health to state and local government agencies. Historically, state laws have required OEHHA to develop Risk Assessment Guidelines for estimating health risk associated with various sources of air pollution. Furthermore, the Children's Environmental Health Protection Act (SB 25, Escutia, 1999) requires OEHHA to biennially review risk assessment methods for air toxics, and related information, to ensure that they adequately protect infants and children.

The SJVAPCD risk management policy works in conjunction with the OEHHA *Risk Assessment Guidelines*. The SJVAPCD risk management policy further clarifies and provides guidance on the appropriate options to use, such as a longer exposure period and more conservative air dispersion modeling.

SJVAPCD staff members are considered leading statewide experts in the field of health risk assessment and have developed significant resources from guidance documents to database tools to assist other agencies, consultants, and regulated sources. Therefore, the SJVAPCD concludes that use of its risk management policy and the OEHHA *Risk Assessment Guidelines* is appropriate in determining significance within the environmental review process.

3.2 Diesel Particulate Matter[8]

As described in Section 4 (HRA Methodology), the Project could be a substantial source of Diesel Particulate Matter (DPM) during construction.

DPM is the particulate component of diesel exhaust and has been identified as a TAC by the California Air Resources Board (CARB) based on its potential exposures and health concerns. Epidemiological studies strongly suggest a relationship between occupational diesel exhaust exposure and lung cancer. A number of adverse acute and chronic effects have also been associated with exposure to diesel exhaust.[9] OEHHA evaluated over 30 human epidemiological studies on the carcinogenic effects of diesel exhaust. These studies found that long-term occupational exposures to diesel exhaust were associated with a 40 percent increase, on average, in the relative risk of lung cancer. These epidemiological studies strongly suggest a causal relationship between occupational diesel exhaust exposure and lung cancer.

[8] (California Air Pollution Control Officers Association, 2024)
[9] (California Air Resources Board, 2024)

Adverse long-term noncancer effects have been associated with exposure to diesel exhaust. Occupational studies have shown that there may be a greater incidence of cough, phlegm and chronic bronchitis among those exposed to diesel exhaust than among those not exposed. Reductions in pulmonary function have also been reported following occupational exposures in chronic studies.

Adverse short-term health effects have also been associated with exposures to diesel exhaust. Occupational exposures to DPM have been associated with significant cross-shift decreases in lung function. Increased cough, labored breathing, chest tightness, and wheezing have been associated with exposure to diesel exhaust in bus garage workers. A significant increase in airway resistance and increases in eye and nasal irritation were observed in human volunteers following one-hour chamber exposure to diesel exhaust.

3.3 Thresholds of Significance

This HRA focuses on answering the following question from the Air Quality section of Appendix G in the *CEQA Guidelines*[10]:

3. Would the Project expose sensitive receptors to substantial pollutant concentrations?

The *CEQA Guidelines* state that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make a significance determination.

SJVAPCD has established the following thresholds of significance for risk exposure to TAC:

Table 1 SJVPACD Thresholds of Significance – Toxic Air Contaminants

CARCINOGENS	Maximally Exposed Individual risk equals or exceeds 20 in one million
NON CARCINOGENS	**Acute**: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual
	Chronic: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual

Source: (San Joaquin Valley Air Pollution Control District, 2015)

Therefore, if the calculated risk exposure from Project TAC emissions is below the SJVAPCD thresholds of significance, it can be concluded that the Project would not expose sensitive receptors to substantial pollutant concentrations and this impact would be considered less than significant under CEQA.

[10] (Association of Environmental Professionals, 2025)

4 HRA Methodology

The Project could result in toxic air contaminant (TAC) emissions during construction. The primary TAC emissions resulting from Project construction would include diesel particulate matter (DPM), exhausted during the operation of on- and-off road diesel-fueled vehicles and equipment.

The Project would develop a residential subdivision. Once operational, diesel-fueled vehicle and equipment use would occur rarely if at all. Operation would not include any substantial sources of DPM or other TAC.

Because there are no other substantial sources of TAC expected, during construction or operation, modeling and calculations were performed for construction DPM.

Health risk from Project TAC emissions was evaluated in the following steps:

1. Estimated DPM Emissions. Project air pollutant emissions were estimated using the *California Emissions Estimator Model*[11] (CalEEMod) (Version 2022.1.1.29). SJVAPCD considers exhaust particulate matter 2.5 microns and smaller (PM2.5) to be a reasonable surrogate for DPM, and the maximum (worst year) annual construction emissions were used for subsequent modeling and calculation (described below). Project-specific information was used where available; CalEEMod defaults were used for all other inputs. Mitigation Measure HRA-1 (Tier 4 engine controls for off-road diesel-fueled equipment and vehicles during construction) was incorporated; see Section 5.3 Mitigation for additional explanation and Appendix A for CalEEMod results. Other mitigation measures were incorporated prior to this HRA, within the analysis that was provided by 4Creeks, Inc.; those measures were included in the CalEEMod analysis for this HRA but were not added as mitigation measures in this report because they were assumed to be the baseline for this analysis and were not identified for the purpose of directly reducing a potentially-significant health risk impact to a less-than-significant level. All mitigation measures are listed in Appendix A CalEEMod Results and described in the Initial Study.
2. Modeled air dispersion. The United States Environmental Protection Agency's (U.S. EPA) *American Meteorological Society/EPA Regulatory Model* (AERMOD) air dispersion model was used to model the annual downwind air concentration at nearby receptors, based on a normalized emission rate of one gram per second. Meteorological data were obtained from SJVAPCD (Visalia met site), along with required modeling parameters. Terrain was incorporated using the built-in WebGIS tool. Sensitive receptors include nearby residences to the west and east, along with a school to the southwest. A total of 101 receptors (resident and worker) were selected for a representative analysis, within a modeling domain radius of 1 kilometer.
3. Calculated Risk. Normalized downwind air concentrations for each receptor (modeled in the step above) were imported into the CARB Hotspots Analysis and Reporting Program (HARP2) *Air Dispersion Modeling and Risk Tool*[12] (ADMRT) and combined with the toxic emissions data (DPM emissions from the CalEEMod step described above) to estimate the ground level concentrations of DPM at each receptor. Cancer risk and chronic hazard index (HI) were calculated in ADMRT using SJVAPCD-required exposure parameters and Project information. OEHHA has not established a Reference Exposure Level (REL) for 8-hour chronic, or acute health risk from DPM.

[11] (California Air Pollution Control Officers Association, 2022)
[12] (California Air Resources Board, 2022a)

Thus, the 8-hour chronic and acute HI are not calculated for HRA where the only substantial TAC is DPM, except in unusual situations such as when a sensitive receptor is located directly above the emission release point (e.g., on a hillside or in a multistory apartment building).[13]

Results of the AERMOD modeling and ADMRT calculations are attached in Appendix B and Appendix C, respectively, along with a map of receptors. Modeling input and output files will be made available to reviewing agencies upon request.

[13] (California Air Resources Board, 2024)

5 HRA Results

5.1 Health Risk from Construction

Project construction could expose sensitive receptors to Toxic Air Contaminants (TAC), including Diesel Particulate Matter (DPM) exhausted during the operation of on- and off-road diesel-fueled vehicles and equipment.

The CalEEMod results (Appendix A) show that maximum annual construction emissions of PM2.5 exhaust, which is considered a surrogate for DPM, would be 0.01 metric tons per year (MT/yr), or approximately 22 pounds per year (lb/yr). The exposure period for sensitive receptors would be the construction duration of approximately 3 years (rounded up from 2.5 years).

Results of the construction health risk assessment are compared to SJVAPCD thresholds of significance in the table below. The highest risk occurred at Receptor 9, an industrial facility located approximately 26 meters south of the Project site perimeter. Receptor 9 is a worker receptor, and would therefore be evaluated assuming less hours of exposure per day and therefore lower risk. However, the residential receptors located similar distances from the western side and northwest corner of the Project site (receptors 1, 2, 3, and 4) would be exposed to similar maximum risk levels. Thus, the highest risk of any receptor (Receptor 9) was presented in the table below to show a worst-case scenario. Carcinogenic risk and Chronic Hazard Index for each receptor are shown in Appendix C HARP2 ADMRT Results.

Table 2 HRA Results Compared to SJVAPCD Thresholds of Significance

RISK	CARCINOGEN (risk in one million)	CHRONIC HAZARD INDEX
Construction	3.59	0.0019
Thresholds of Significance	20	1

Notes: *Calculation based on mitigated emissions. Hazard indices are for Maximally Exposed Individuals. No HI was calculated for 8-hour Chronic or Acute risk because OEHHA has not established REL.* (California Air Resources Board, 2024)

Sources: *Appendix C HARP2 ADMRT Results*

As shown in the Table above, construction risk would be below the SJVAPCD Thresholds of Significance, with incorporation of Mitigation Measure HRA-1 (described in Section 5.3 below). Therefore, consistent with the *CEQA Guidelines*[14], the Project would not expose sensitive receptors to substantial pollutant concentrations, and this impact would be considered ***less than significant with mitigation incorporated***.

5.2 Health Risk from Operation

The Project would develop a residential subdivision. Once operational, diesel-fueled vehicle and equipment use would occur rarely if at all. Operation would not include any substantial sources of DPM or other TAC. Therefore, the Project would not expose sensitive receptors to substantial pollutant concentrations, and this impact would be considered ***less than significant***.

[14] (Association of Environmental Professionals, 2025)

5.3 Mitigation

Modeling the unmitigated DPM emissions resulted in risk estimates that could exceed the SJVAPCD threshold of significance for carcinogens. Implementation of the following Mitigation Measure HRA-1 would reduce DPM emissions to a level that results in carcinogenic risk below the SJVAPCD threshold of significance.

> ***Mitigation Measure HRA-1:*** *Implement Tier 4 (Final) Engine Controls for all off-road, diesel-fueled equipment during construction*.

According to the CalEEMod and AERMOD/ADMRT analyses, implementation of Mitigation Measure HRA-1 would reduce annual construction PM2.5 exhaust emissions by approximately 84%. The resulting carcinogenic risk would be lower than the SJVAPCD threshold of significance. Therefore, with implementation of Mitigation Measure HRA-1, impacts would be ***less than significant with mitigation incorporated***.

Unlike Tier 1 through Tier 3 engine controls, Tier 4 generally requires the addition of emissions control equipment even to new engines, such as a Diesel Particulate Filter (DPF).[15] The construction contractor(s) may decide implementation is not technically or economically feasible. Initial modeling indicated that only a 8% reduction in DPM emissions was required to keep cancer risk below the threshold of significance.

Tier 4 engine controls would achieve a greater reduction (84% for the inputs modeled) and were selected as a health-conservative risk reduction measure to ensure that health risk would likely remain below the threshold even if slightly higher emissions of DPM are produced.

Other measures were considered (lower-tier engine controls; Construction Clean Fleet), but were either not effective enough to achieve the required emissions reduction without also including Tier 4 controls (or component equipment such as diesel particulate filters, oxidative catalysts, etc.), or likely to be equally burdensome to the contractor(s) and agencies responsible for verifying. There are still a wide variety of alternative measures that could be selected and combined to achieve the required reduction, including but not limited to the following relevant options:

- **Electrification and/or Hybridization.** The construction contractor(s) could replace diesel-fueled equipment with electric and/or hybrid options.
- **Less diesel-fueled equipment and/or less operating hours.** The construction contractor(s) could require less equipment and/or less operating hours than included in the health-conservative CalEEMod default assumptions.
- **Use Newer Equipment.** Similar to the option above, the construction contractor(s) could use newer equipment than included in the CalEEMod analysis.

If a different option is selected that Mitigation Measure HRA-1, an updated HRA should be performed, and reviewed by the Lead Agency (City), to demonstrate that risks would remain below the thresholds of

[15] (California Air Pollution Control Officers Association, 2024)

significance. Risk is directly proportionate to maximum annual emissions, thus the modeling performed for this HRA indicates that annual construction PM2.5 exhaust emissions must stay below 0.056 MT/yr, with an exposure period of no more than three years, for the carcinogenic risk to remain below the threshold of significance without any other changes.

The mitigation measure should be inserted into the construction specifications included with bid documents, along with a requirement to submit regular reports to the Lead Agency. Contractor will be made responsible for implementing the Tier 4 Engine controls and submitting monthly reports to Lead Agency demonstrating that all applicable equipment had Tier 4 Engine Controls installed prior to and throughout operation on the Project site, including a list of applicable equipment and the specific controls meeting Tier 4 requirements. Contractor will also be required to submit a verification, to the Lead Agency, prior to start of construction, confirming its understanding of the mitigation measure and monitoring requirement. Lead Agency will review monthly reports and confirm implementation. Any implementation failure will be considered a breach of contract and will require the Contractor to halt construction until the mitigation measure has been implemented and provide an appropriate remedy, with examples including paying for additional analyses to determine the impacts resulting from the lack of implementation, and/or payment of off-site mitigation fees to SJVAPCD to fund equivalent mitigations. Upon completion of construction, within sixty (60) days, Lead Agency will submit a verification statement to SJVAPCD confirming that the mitigation measure was implemented throughout construction for all applicable equipment.

Other mitigation measures were incorporated prior to this HRA, within the analysis that was provided by 4Creeks, Inc.; those measures were included in the CalEEMod analysis for this HRA but were not added as mitigation measures in this report because they were assumed to be the baseline for this analysis and were not identified for the purpose of directly reducing a potentially-significant health risk impact to a less-than-significant level. All mitigation measures are listed in Appendix A CalEEMod Results and described in the Initial Study, and monitoring and reporting is detailed in the Initial Study where applicable.

6 References

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California Air Pollution Control Officers Association. (2022). *California Emissions Estimator Model.* Retrieved from https://caleemod.com/.

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Appendix A. CalEEMod Results

Original Prepared by 4Creeks, Inc.:

February 2025

Revised Prepared by Core Environmental Consulting (Attached):

Jesse Madsen, Owner, Principal Environmental Scientist
Clovis, CA

March 2025

Santa Fe West Subdivision Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Santa Fe West Subdivision
Construction Start Date	1/1/2026
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	24.4
Location	36.231386213082885, -119.35604588659939
County	Tulare
City	Tulare
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2742
EDFZ	9
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

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
Single Family Housing	174	Dwelling Unit	33.0	339,300	2,038,037	—	588	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-C	Water Unpaved Construction Roads
Transportation	T-32*	Orient Project Toward Transit, Bicycle, or Pedestrian Facility
Transportation	T-33*	Locate Project near Bike Path/Bike Lane
Transportation	T-34*	Provide Bike Parking
Transportation	T-35*	Provide Tra c Calming Measures
Energy	E-2	Require Energy Efficient Appliances
Energy	E-12-B	Install Electric Space Heater in Place of Natural Gas Heaters in Residences
Energy	E-13	Install Electric Ranges in Place of Gas Ranges
Energy	E-15	Require All-Electric Development
Water	W-5	Design Water-Efficient Landscapes
Area Sources	AS-1	Use Low-VOC Cleaning Supplies
Area Sources	LL-1	Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment
Area Sources	AS-2	Use Low-VOC Paints

* 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.	60.9	60.8	27.3	28.4	0.06	1.12	3.70	4.82	1.03	1.45	2.48	—	6,717	6,717	0.28	0.09	2.28	6,741

Mit.	60.8	60.8	4.48	36.2	0.06	0.12	3.70	3.82	0.12	1.45	1.57	—	6,717	6,717	0.28	0.09	2.28	6,741
% Reduced	< 0.5%	< 0.5%	84%	-27%	—	89%	—	21%	88%	—	37%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.82	3.22	29.2	29.4	0.06	1.24	7.76	9.00	1.14	3.96	5.11	—	6,703	6,703	0.28	0.09	0.06	6,728
Mit.	0.73	0.72	4.50	36.0	0.06	0.12	7.76	7.86	0.12	3.96	4.06	—	6,703	6,703	0.28	0.09	0.06	6,728
% Reduced	81%	78%	85%	-23%	—	90%	—	13%	89%	—	20%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.23	6.17	9.72	12.0	0.02	0.38	1.08	1.46	0.35	0.44	0.79	—	2,525	2,525	0.10	0.07	0.63	2,543
Mit.	5.98	5.97	2.52	13.8	0.02	0.06	1.08	1.14	0.06	0.44	0.50	—	2,525	2,525	0.10	0.07	0.63	2,543
% Reduced	4%	3%	74%	-15%	—	85%	—	22%	84%	—	37%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.14	1.13	1.77	2.19	< 0.005	0.07	0.20	0.27	0.06	0.08	0.14	—	418	418	0.02	0.01	0.10	421
Mit.	1.09	1.09	0.46	2.51	< 0.005	0.01	0.20	0.21	0.01	0.08	0.09	—	418	418	0.02	0.01	0.10	421
% Reduced	4%	3%	74%	-15%	—	85%	—	22%	84%	—	37%	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.73	3.14	27.3	28.4	0.06	1.12	3.70	4.82	1.03	1.45	2.48	—	6,717	6,717	0.28	0.09	2.28	6,741
2027	1.56	1.33	10.1	15.7	0.03	0.34	0.45	0.79	0.32	0.11	0.42	—	3,144	3,144	0.13	0.09	2.05	3,177

2028	60.9	60.8	9.56	15.5	0.03	0.31	0.45	0.75	0.28	0.11	0.39	—	3,127	3,127	0.13	0.09	1.83	3,159
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.82	3.22	29.2	29.4	0.06	1.24	7.76	9.00	1.14	3.96	5.11	—	6,703	6,703	0.28	0.09	0.06	6,728
2027	1.52	1.29	10.1	15.1	0.03	0.34	0.45	0.79	0.32	0.11	0.42	—	3,102	3,102	0.12	0.09	0.05	3,134
2028	1.46	1.24	9.63	15.0	0.03	0.31	0.45	0.75	0.28	0.11	0.39	—	3,087	3,087	0.12	0.09	0.05	3,118
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.38	1.17	9.72	12.0	0.02	0.38	1.08	1.46	0.35	0.44	0.79	—	2,525	2,525	0.10	0.05	0.47	2,543
2027	1.09	0.93	7.22	10.8	0.02	0.24	0.31	0.56	0.23	0.08	0.30	—	2,224	2,224	0.09	0.07	0.63	2,247
2028	6.23	6.17	2.73	4.28	0.01	0.09	0.11	0.20	0.08	0.03	0.11	—	820	820	0.03	0.02	0.19	828
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.25	0.21	1.77	2.19	< 0.005	0.07	0.20	0.27	0.06	0.08	0.14	—	418	418	0.02	0.01	0.08	421
2027	0.20	0.17	1.32	1.98	< 0.005	0.04	0.06	0.10	0.04	0.01	0.06	—	368	368	0.02	0.01	0.10	372
2028	1.14	1.13	0.50	0.78	< 0.005	0.02	0.02	0.04	0.02	< 0.005	0.02	—	136	136	0.01	< 0.005	0.03	137

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.74	0.74	4.48	36.2	0.06	0.12	3.70	3.82	0.12	1.45	1.57	—	6,717	6,717	0.28	0.09	2.28	6,741
2027	0.68	0.63	3.49	17.5	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,144	3,144	0.13	0.09	2.05	3,177
2028	60.8	60.8	3.45	17.3	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,127	3,127	0.13	0.09	1.83	3,159
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.73	0.72	4.50	36.0	0.06	0.12	7.76	7.86	0.12	3.96	4.06	—	6,703	6,703	0.28	0.09	0.06	6,728
2027	0.64	0.59	3.56	17.0	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,102	3,102	0.12	0.09	0.05	3,134

2028	0.62	0.58	3.52	16.8	0.03	0.08	0.45	0.53	0.08	0.11	0.19	—	3,087	3,087	0.12	0.09	0.05	3,118
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.42	0.40	2.30	13.8	0.02	0.06	1.08	1.14	0.06	0.44	0.50	—	2,525	2,525	0.10	0.05	0.47	2,543
2027	0.46	0.42	2.52	12.2	0.02	0.06	0.31	0.37	0.06	0.08	0.13	—	2,224	2,224	0.09	0.07	0.63	2,247
2028	5.98	5.97	0.98	4.73	0.01	0.02	0.11	0.13	0.02	0.03	0.04	—	820	820	0.03	0.02	0.19	828
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.08	0.07	0.42	2.51	< 0.005	0.01	0.20	0.21	0.01	0.08	0.09	—	418	418	0.02	0.01	0.08	421
2027	0.08	0.08	0.46	2.22	< 0.005	0.01	0.06	0.07	0.01	0.01	0.02	—	368	368	0.02	0.01	0.10	372
2028	1.09	1.09	0.18	0.86	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	136	136	0.01	< 0.005	0.03	137

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.	15.1	14.5	4.62	61.1	0.10	0.07	9.76	9.83	0.07	2.47	2.54	109	14,182	14,291	11.7	0.55	33.8	14,782
Mit.	13.6	13.1	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	109	14,027	14,135	11.7	0.55	33.8	14,626
% Reduced	10%	10%	2%	16%	—	7%	—	< 0.5%	5%	—	< 0.5%	—	1%	1%	< 0.5%	< 0.5%	—	1%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.4	12.9	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	13,086	13,195	11.8	0.60	3.24	13,671
Mit.	12.9	12.4	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	12,953	13,061	11.8	0.59	3.24	13,536
% Reduced	4%	4%	—	—	—	—	—	—	—	—	—	—	1%	1%	< 0.5%	< 0.5%	—	1%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	13.8	13.3	4.85	45.8	0.10	0.07	9.39	9.45	0.06	2.38	2.44	109	13,107	13,215	11.8	0.56	15.7	13,692
Mit.	12.8	12.4	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	109	12,962	13,071	11.7	0.56	15.7	13,547
% Reduced	7%	7%	1%	11%	—	3%	—	< 0.5%	3%	—	< 0.5%	—	1%	1%	< 0.5%	< 0.5%	—	1%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.53	2.44	0.89	8.36	0.02	0.01	1.71	1.73	0.01	0.43	0.45	18.0	2,170	2,188	1.95	0.09	2.59	2,267
Mit.	2.34	2.26	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	18.0	2,146	2,164	1.94	0.09	2.59	2,243
% Reduced	7%	7%	1%	11%	< 0.5%	3%	—	< 0.5%	3%	—	< 0.5%	—	1%	1%	< 0.5%	< 0.5%	—	1%

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	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Area	8.75	8.70	0.09	9.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	126	126	0.01	< 0.005	—	127
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,233	3,233	0.31	0.04	—	3,251
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	15.1	14.5	4.62	61.1	0.10	0.07	9.76	9.83	0.07	2.47	2.54	109	14,182	14,291	11.7	0.55	33.8	14,782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Area	7.84	7.84	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,233	3,233	0.31	0.04	—	3,251
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172

Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	13.4	12.9	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	13,086	13,195	11.8	0.60	3.24	13,671
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.55	5.08	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	—	9,729	9,729	0.52	0.49	13.2	9,900
Area	8.29	8.27	0.05	4.88	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	35.4	35.4	< 0.005	< 0.005	—	35.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,233	3,233	0.31	0.04	—	3,251
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	13.8	13.3	4.85	45.8	0.10	0.07	9.39	9.45	0.06	2.38	2.44	109	13,107	13,215	11.8	0.56	15.7	13,692
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Area	1.51	1.51	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.86	5.86	< 0.005	< 0.005	—	5.88
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	535	535	0.05	0.01	—	538
Water	—	—	—	—	—	—	—	—	—	—	—	2.35	18.2	20.6	0.24	0.01	—	28.4
Waste	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	2.53	2.44	0.89	8.36	0.02	0.01	1.71	1.73	0.01	0.43	0.45	18.0	2,170	2,188	1.95	0.09	2.59	2,267

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	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Area	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,140	3,140	0.30	0.04	—	3,158
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	13.6	13.1	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	109	14,027	14,135	11.7	0.55	33.8	14,626
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Area	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,136	3,136	0.30	0.04	—	3,154
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	12.9	12.4	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	109	12,953	13,061	11.8	0.59	3.24	13,536
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.55	5.08	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	—	9,729	9,729	0.52	0.49	13.2	9,900
Area	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	22.3	22.3	< 0.005	< 0.005	—	22.5
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3,138	3,138	0.30	0.04	—	3,156
Water	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Waste	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	12.8	12.4	4.81	40.9	0.09	0.06	9.39	9.45	0.06	2.38	2.44	109	12,962	13,071	11.7	0.56	15.7	13,547
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Area	1.33	1.33	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	519	519	0.05	0.01	—	523
Water	—	—	—	—	—	—	—	—	—	—	—	2.35	12.2	14.5	0.24	0.01	—	22.3

Waste	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	2.34	2.26	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	18.0	2,146	2,164	1.94	0.09	2.59	2,243

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.17	1.60	1.58	< 0.005	0.07	—	0.07	0.06	—	0.06	—	290	290	0.01	< 0.005	—	291

Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.1	48.1	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.5	91.5	0.01	< 0.005	0.01	93.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	—	5.20	5.20	< 0.005	< 0.005	0.01	5.29
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	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.88

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.14	1.55	< 0.005	0.01	—	0.01	0.01	—	0.01	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	48.1	48.1	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.5	91.5	0.01	< 0.005	0.01	93.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	—	5.20	5.20	< 0.005	< 0.005	0.01	5.29
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	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	3.36	3.40	0.01	0.14	—	0.14	0.13	—	0.13	—	814	814	0.03	0.01	—	816

Dust From Material Movement	—	—	—	—	—	—	0.44	0.44	—	0.18	0.18	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.61	0.62	< 0.005	0.03	—	0.03	0.02	—	0.02	—	135	135	0.01	< 0.005	—	135
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.11	0.10	0.05	0.88	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	118	118	0.01	0.01	0.42	120
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.69	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	105	105	0.01	0.01	0.01	106
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	0.01	0.01	0.01	0.09	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.4	13.4	< 0.005	< 0.005	0.02	13.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.21	2.21	< 0.005	< 0.005	< 0.005	2.25
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

3.4. Grading (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	0.55	4.36	0.01	0.02	—	0.02	0.02	—	0.02	—	814	814	0.03	0.01	—	816
Dust From Material Movement	—	—	—	—	—	—	0.44	0.44	—	0.18	0.18	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.80	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	135	135	0.01	< 0.005	—	135
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.11	0.10	0.05	0.88	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	118	118	0.01	0.01	0.42	120
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.69	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	105	105	0.01	0.01	0.01	106

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	0.01	0.01	0.01	0.09	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.4	13.4	< 0.005	< 0.005	0.02	13.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.21	2.21	< 0.005	< 0.005	< 0.005	2.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	0.48	4.42	5.81	0.01	0.17	—	0.17	0.16	—	0.16	—	1,074	1,074	0.04	0.01	—	1,078
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.81	1.06	< 0.005	0.03	—	0.03	0.03	—	0.03	—	178	178	0.01	< 0.005	—	178
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.33	0.31	0.17	2.75	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	370	370	0.02	0.02	1.32	377
Vendor	0.02	0.02	0.54	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	392	392	0.01	0.06	0.96	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.29	0.26	0.22	2.16	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	327	327	0.03	0.02	0.03	333
Vendor	0.02	0.01	0.58	0.21	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	393	393	0.01	0.06	0.03	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.13	0.13	0.09	1.00	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	152	152	0.01	0.01	0.25	155
Vendor	0.01	0.01	0.25	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	176	176	< 0.005	0.03	0.19	184

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.2	25.2	< 0.005	< 0.005	0.04	25.6
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.1	29.1	< 0.005	< 0.005	0.03	30.5
Hauling	0.00	0.00	0.00	0.00	0.00	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. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.15	1.26	6.64	0.01	0.03	—	0.03	0.03	—	0.03	—	1,074	1,074	0.04	0.01	—	1,078

Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.03	0.03	0.23	1.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	178	178	0.01	< 0.005	—	178
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.33	0.31	0.17	2.75	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	370	370	0.02	0.02	1.32	377
Vendor	0.02	0.02	0.54	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	392	392	0.01	0.06	0.96	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.29	0.26	0.22	2.16	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	327	327	0.03	0.02	0.03	333
Vendor	0.02	0.01	0.58	0.21	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	393	393	0.01	0.06	0.03	411
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.13	0.13	0.09	1.00	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	152	152	0.01	0.01	0.25	155
Vendor	0.01	0.01	0.25	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	176	176	< 0.005	0.03	0.19	184
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	25.2	25.2	< 0.005	< 0.005	0.04	25.6
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.1	29.1	< 0.005	< 0.005	0.03	30.5
Hauling	0.00	0.00	0.00	0.00	0.00	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. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.71	9.24	0.02	0.24	—	0.24	0.22	—	0.22	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	1.22	1.69	< 0.005	0.04	—	0.04	0.04	—	0.04	—	283	283	0.01	< 0.005	—	284

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31	0.28	0.15	2.53	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	362	362	0.02	0.02	1.19	369
Vendor	0.02	0.02	0.52	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	384	384	0.01	0.06	0.86	403
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.27	0.25	0.19	1.98	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	321	321	0.02	0.02	0.03	326
Vendor	0.02	0.01	0.55	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	385	385	0.01	0.06	0.02	402
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.19	0.18	0.13	1.46	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	238	238	0.02	0.01	0.37	242
Vendor	0.02	0.01	0.38	0.14	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	275	275	0.01	0.04	0.26	287
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.04	0.03	0.02	0.27	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.3	39.3	< 0.005	< 0.005	0.06	40.0
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	45.4	45.4	< 0.005	0.01	0.04	47.6
Hauling	0.00	0.00	0.00	0.00	0.00	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. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.23	2.01	10.6	0.02	0.05	—	0.05	0.05	—	0.05	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.37	1.93	< 0.005	0.01	—	0.01	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.31	0.28	0.15	2.53	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	362	362	0.02	0.02	1.19	369
Vendor	0.02	0.02	0.52	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	384	384	0.01	0.06	0.86	403
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.27	0.25	0.19	1.98	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	321	321	0.02	0.02	0.03	326
Vendor	0.02	0.01	0.55	0.20	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	385	385	0.01	0.06	0.02	402
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.19	0.18	0.13	1.46	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	238	238	0.02	0.01	0.37	242
Vendor	0.02	0.01	0.38	0.14	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	275	275	0.01	0.04	0.26	287
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.04	0.03	0.02	0.27	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.3	39.3	< 0.005	< 0.005	0.06	40.0
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	45.4	45.4	< 0.005	0.01	0.04	47.6
Hauling	0.00	0.00	0.00	0.00	0.00	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 (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.87	2.71	< 0.005	0.06	—	0.06	0.06	—	0.06	—	502	502	0.02	< 0.005	—	504
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.05	0.04	0.34	0.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	83.1	83.1	< 0.005	< 0.005	—	83.4
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	0.28	0.27	0.14	2.33	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	355	355	0.02	0.01	1.08	361
Vendor	0.02	0.01	0.50	0.18	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.76	393
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.25	0.24	0.18	1.83	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	314	314	0.01	0.02	0.03	320
Vendor	0.02	0.01	0.53	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.02	392
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.05	0.05	0.03	0.40	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	68.3	68.3	< 0.005	< 0.005	0.10	69.5
Vendor	< 0.005	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.5	78.5	< 0.005	0.01	0.07	82.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.01	13.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	0.59	3.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	502	502	0.02	< 0.005	—	504
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	83.1	83.1	< 0.005	< 0.005	—	83.4
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	0.28	0.27	0.14	2.33	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	355	355	0.02	0.01	1.08	361
Vendor	0.02	0.01	0.50	0.18	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.76	393
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.25	0.24	0.18	1.83	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	314	314	0.01	0.02	0.03	320
Vendor	0.02	0.01	0.53	0.19	< 0.005	0.01	0.11	0.11	0.01	0.03	0.03	—	375	375	0.01	0.06	0.02	392
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.05	0.05	0.03	0.40	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	68.3	68.3	< 0.005	< 0.005	0.10	69.5
Vendor	< 0.005	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	78.5	78.5	< 0.005	0.01	0.07	82.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.01	13.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.69	6.63	9.91	0.01	0.26	—	0.26	0.24	—	0.24	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.00	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	0.07	0.64	0.95	< 0.005	0.02	—	0.02	0.02	—	0.02	—	145	145	0.01	< 0.005	—	145

Paving	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	0.12	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Paving	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	0.07	0.06	0.03	0.56	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	85.0	85.0	< 0.005	< 0.005	0.26	86.5
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.49	7.49	< 0.005	< 0.005	0.01	7.62
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	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26
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

3.12. Paving (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	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	0.02	0.02	0.19	1.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	145	145	0.01	< 0.005	—	145
Paving	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	< 0.005	< 0.005	0.03	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Paving	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	0.07	0.06	0.03	0.56	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	85.0	85.0	< 0.005	< 0.005	0.26	86.5
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.49	7.49	< 0.005	< 0.005	0.01	7.62
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	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26
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

3.13. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134

Architectural Coating	60.7	60.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.8	12.8	< 0.005	< 0.005	—	12.8
Architectural Coatings	5.82	5.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.12	2.12	< 0.005	< 0.005	—	2.13
Architectural Coatings	1.06	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	0.05	0.03	0.47	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.0	71.0	< 0.005	< 0.005	0.22	72.2
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
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	—	6.25	6.25	< 0.005	< 0.005	0.01	6.36
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	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.05
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

3.14. Architectural Coating (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	60.7	60.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.8	12.8	< 0.005	< 0.005	—	12.8
Architectural Coatings	5.82	5.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.12	2.12	< 0.005	< 0.005	—	2.13
Architectural Coatings	1.06	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	0.05	0.03	0.47	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.0	71.0	< 0.005	< 0.005	0.22	72.2
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
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	—	6.25	6.25	< 0.005	< 0.005	0.01	6.36
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	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.05
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Total	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Total	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Total	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Total	6.32	5.84	4.52	51.2	0.10	0.07	9.76	9.82	0.06	2.47	2.53	—	10,713	10,713	0.50	0.48	31.3	10,899
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Total	5.56	5.06	5.30	40.6	0.09	0.07	9.76	9.82	0.06	2.47	2.53	—	9,644	9,644	0.57	0.52	0.81	9,814
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639
Total	1.01	0.93	0.88	7.47	0.02	0.01	1.71	1.73	0.01	0.43	0.44	—	1,611	1,611	0.09	0.08	2.19	1,639

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,233	3,233	0.31	0.04	—	3,251
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	535	535	0.05	0.01	—	538
Total	—	—	—	—	—	—	—	—	—	—	—	—	535	535	0.05	0.01	—	538

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,140	3,140	0.30	0.04	—	3,158
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,140	3,140	0.30	0.04	—	3,158

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	3,136	3,136	0.30	0.04	—	3,154
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,136	3,136	0.30	0.04	—	3,154
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	519	519	0.05	0.01	—	523
Total	—	—	—	—	—	—	—	—	—	—	—	—	519	519	0.05	0.01	—	523

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	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

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Consumer Products	7.26	7.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.91	0.86	0.09	9.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.4	26.4	< 0.005	< 0.005	—	26.5
Total	8.75	8.70	0.09	9.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	126	126	0.01	< 0.005	—	127
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Consumer Products	7.26	7.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.84	7.84	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72

Consumer Products	1.33	1.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.08	0.08	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.15	2.15	< 0.005	< 0.005	—	2.16
Total	1.51	1.51	0.01	0.89	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.86	5.86	< 0.005	< 0.005	—	5.88

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Consumer Products	6.72	6.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100

Consumer Product	6.72	6.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.58	0.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.30	7.30	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	99.5	99.5	0.01	< 0.005	—	100
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72
Consumer Products	1.23	1.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.33	1.33	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	3.70	3.70	< 0.005	< 0.005	—	3.72

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	110	124	1.47	0.04	—	172
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.35	18.2	20.6	0.24	0.01	—	28.4
Total	—	—	—	—	—	—	—	—	—	—	—	2.35	18.2	20.6	0.24	0.01	—	28.4

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Total	—	—	—	—	—	—	—	—	—	—	—	14.2	73.6	87.8	1.46	0.04	—	135
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.35	12.2	14.5	0.24	0.01	—	22.3
Total	—	—	—	—	—	—	—	—	—	—	—	2.35	12.2	14.5	0.24	0.01	—	22.3

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Total	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Total	—	—	—	—	—	—	—	—	—	—	—	94.6	0.00	94.6	9.45	0.00	—	331
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8
Total	—	—	—	—	—	—	—	—	—	—	—	15.7	0.00	15.7	1.57	0.00	—	54.8

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.43	2.43
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Site Preparation	Site Preparation	2/13/2026	3/13/2026	5.00	20.0	—
Grading	Grading	3/14/2026	5/16/2026	5.00	45.0	—

Building Construction	Building Construction	5/17/2026	4/16/2028	5.00	500	—
Paving	Paving	4/17/2028	6/5/2028	5.00	35.0	—
Architectural Coating	Architectural Coating	6/6/2028	7/25/2028	5.00	35.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	6.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	62.6	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	18.6	6.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	6.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	12.5	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	6.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	62.6	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	18.6	6.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	6.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	12.5	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	687,083	229,028	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	30.0	0.00	—
Grading	—	—	135	0.00	—
Paving	0.00	0.00	0.00	0.00	1.92

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	1.92	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005
2028	0.00	532	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
Single Family Housing	1,643	1,660	1,488	592,367	13,711	13,856	12,418	4,944,690

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	1,643	1,660	1,488	592,367	13,711	13,856	12,418	4,944,690

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	87
No Fireplaces	87
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	87
No Fireplaces	87
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

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)
687082.5	229,028	0.00	0.00	—

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)
Single Family Housing	3,408,100	346	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)
Single Family Housing	3,305,898	346	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)
Single Family Housing	7,405,901	35,949,164

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	7,405,901	20,025,491

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	176	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	176	—

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
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

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

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

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	33.9	annual days of extreme heat
Extreme Precipitation	0.95	annual days with precipitation above 20 mm
Sea Level Rise	—	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	0	0	N/A
Drought	3	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	1	1	2
Drought	3	1	1	3
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	5	1	1	4

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	84.6
AQ-PM	97.4
AQ-DPM	26.6
Drinking Water	96.9
Lead Risk Housing	51.1
Pesticides	82.1
Toxic Releases	50.3
Traffic	19.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	98.0
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	23.9
Solid Waste	92.8
Sensitive Population	—
Asthma	71.3

Cardio-vascular	83.0
Low Birth Weights	43.8
Socioeconomic Factor Indicators	—
Education	89.1
Housing	2.99
Linguistic	88.1
Poverty	74.6
Unemployment	43.1

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	26.57513153
Employed	21.14718337
Median HI	40.93417169
Education	—
Bachelor's or higher	17.50288721
High school enrollment	100
Preschool enrollment	30.74554087
Transportation	—
Auto Access	75.69613756
Active commuting	66.90619787
Social	—
2-parent households	71.41023996
Voting	69.20313102
Neighborhood	—
Alcohol availability	90.51713076

Park access	11.08687283
Retail density	4.760682664
Supermarket access	10.63775183
Tree canopy	8.07134608
Housing	—
Homeownership	44.53997177
Housing habitability	72.34697806
Low-inc homeowner severe housing cost burden	65.63582702
Low-inc renter severe housing cost burden	94.52072373
Uncrowded housing	40.97266778
Health Outcomes	—
Insured adults	33.59425125
Arthritis	0.0
Asthma ER Admissions	21.4
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	30.3
Cognitively Disabled	35.0
Physically Disabled	57.4
Heart Attack ER Admissions	23.4
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	97.3

Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	12.4
Elderly	60.7
English Speaking	43.9
Foreign-born	50.6
Outdoor Workers	3.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.0
Traffic Density	33.2
Traffic Access	0.0
Other Indices	—
Hardship	75.7
Other Decision Support	—
2016 Voting	64.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	82.0
Healthy Places Index Score for Project Location (b)	35.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes

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

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	The Project Site is located within the City Limits and is adjacent to other urban land uses.
Characteristics: Utility Information	Electricity utility provider as stated in the site plan.
Land Use	Parcel acreage as per the Site Plan/APN map.
Construction: Construction Phases	No demolition phase as there are no existing structures on site.
Operations: Hearths	No wood stoves or gas powered fireplaces according to the site plan.
Operations: Energy Use	The development will not be connected to natural gas lines and will solely be powered by electricity. The energy use from natural gas was converted to kilowatts then added to the default kilowatt electricity demand to account for additional electricity usage.
Operations: Fleet Mix	The district accepted fleet mix data for the operational year (2029).

Appendix B. AERMOD Modeling Results

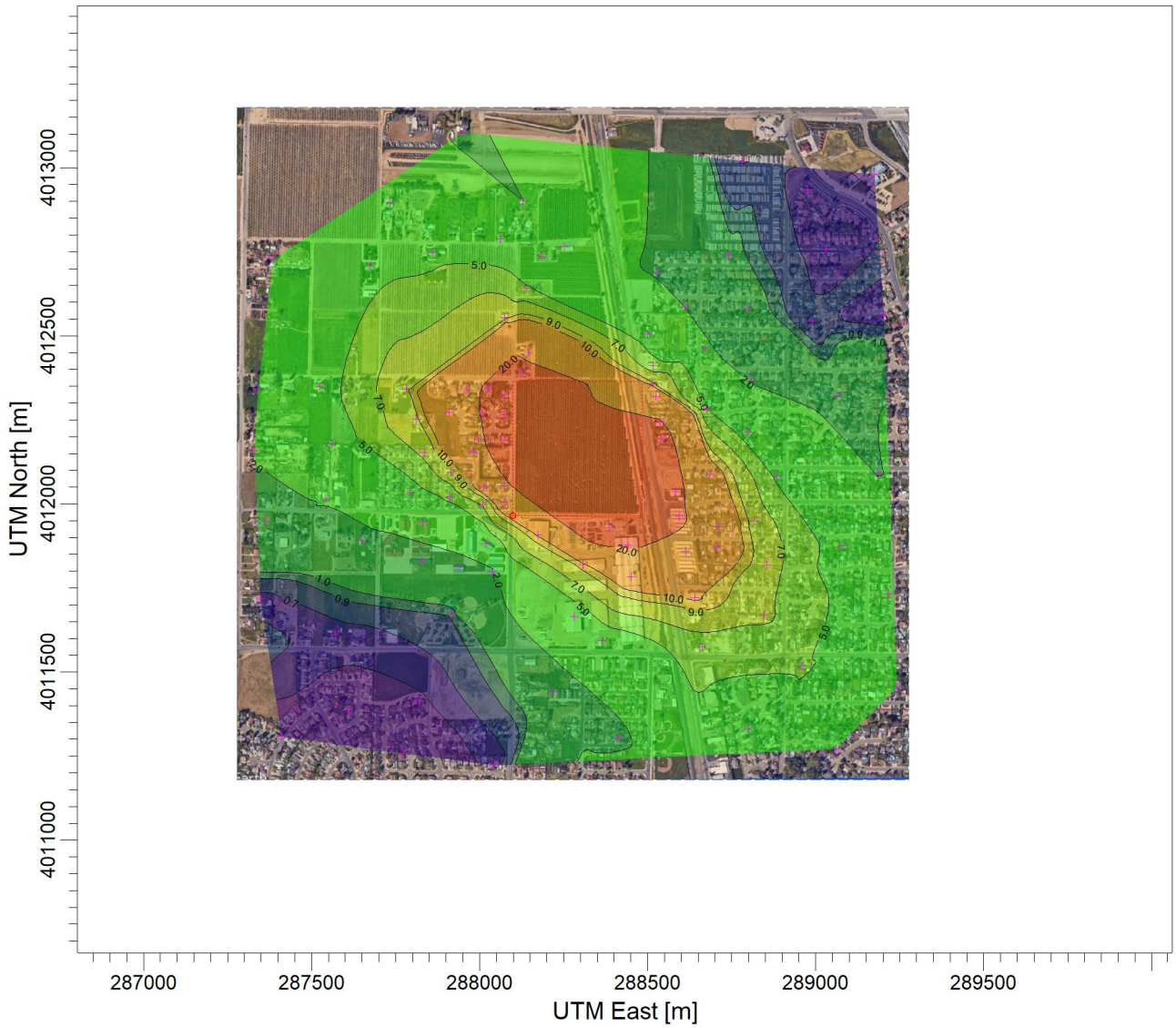
Prepared by Core Environmental Consulting:

Jesse Madsen, Owner, Principal Environmental Scientist
Clovis, CA

March 2025

PROJECT TITLE:

C:\Lakes\AERMOD View\24013 - Santa Fe West Subdivision HRA\24013 - S



PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 4 YEARS FOR SOURCE GROUP: AREA1 ug/m^3

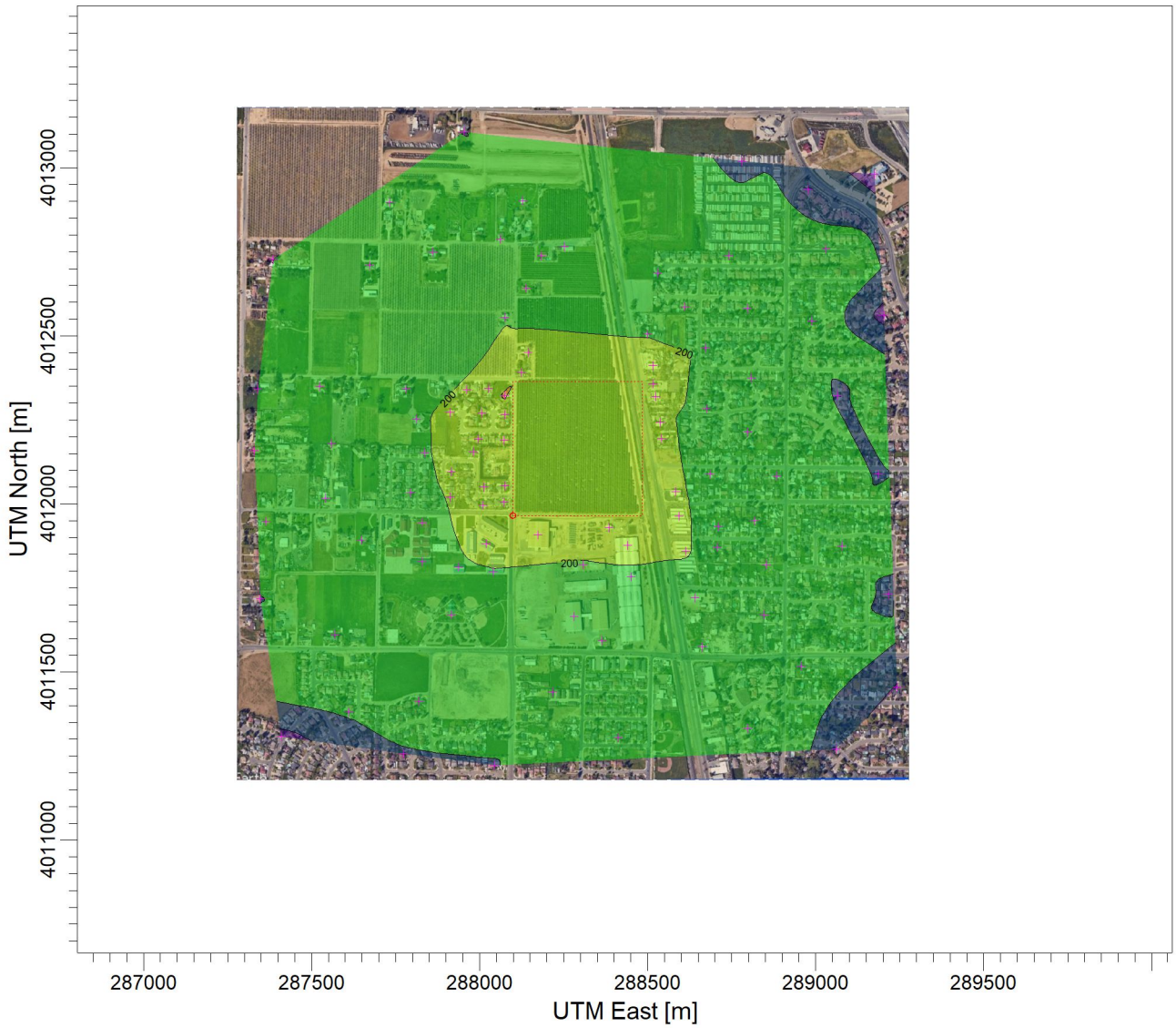
Max: 29.8 [ug/m^3] at (288384.76, 4011928.55)

0.3 0.5 0.7 0.9 1.0 2.0 5.0 7.0 9.0 10.0 20.0 29.8

COMMENTS:	SOURCES: **1**	COMPANY NAME:	
	RECEPTORS: **101**	MODELER:	
	OUTPUT TYPE: **Concentration**	SCALE: 1:20,493 0 0.5 km	
	MAX: **29.8 ug/m^3**	DATE: **3/20/2025**	PROJECT NO.:

PROJECT TITLE:

C:\Lakes\AERMOD View\24013 - Santa Fe West Subdivision HRA\24013 - S



PLOT FILE OF HIGH 1ST HIGH 1-HR VALUES FOR SOURCE GROUP: AREA1 ug/m^3

Max: 307 [ug/m^3] at (288075.36, 4012323.29)

84 90 100 200 300 307

COMMENTS:	SOURCES: **1**	COMPANY NAME:	
	RECEPTORS: **101**	MODELER:	
	OUTPUT TYPE: **Concentration**	SCALE: 1:20,493 0 0.5 km	
	MAX: **307 ug/m^3**	DATE: **3/20/2025**	PROJECT NO.:

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 13.0.0
** Lakes Environmental Software Inc.
** Date: 3/20/2025
** File: C:\Lakes\AERMOD View\24013 - Santa Fe West Subdivision HRA\24013 - Santa Fe
West Subdivision HRA.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\24013 - Santa Fe West Subdivision HRA\24013 - S
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   POLLUTID OTHER
   RUNORNOT RUN
   ERRORFIL "24013 - Santa Fe West Subdivision HRA.err"
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1        AREA       288098.660  4011966.150       85.020
** DESCRSRC Construction
** Source Parameters **
   SRCPARAM AREA1        6.5261E-06     4.000   385.000   398.000     0.000
0.000
   SRCGROUP AREA1    AREA1
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
** DESCRREC "" ""
```

DISCCART	288124.13	4012390.36	85.30	85.30
DISCCART	288075.36	4012323.29	85.11	85.11
DISCCART	288073.84	4012265.38	85.30	85.30
DISCCART	288072.31	4012189.17	85.11	85.11
DISCCART	288073.84	4012053.53	85.25	85.25
DISCCART	288072.31	4012004.75	85.14	85.14
DISCCART	288018.97	4011882.82	85.21	85.21
DISCCART	288174.43	4011907.21	85.21	85.21
DISCCART	288384.76	4011928.55	85.23	85.23
DISCCART	288441.15	4011876.73	85.12	85.12
DISCCART	288593.56	4011963.60	85.35	85.35
DISCCART	288582.89	4012036.76	85.62	85.62
DISCCART	288541.74	4012193.74	85.62	85.62
DISCCART	288537.17	4012242.52	85.55	85.55
DISCCART	288523.45	4012318.72	85.81	85.81
DISCCART	288515.83	4012356.83	85.82	85.82
DISCCART	288515.83	4012411.69	85.99	85.99
DISCCART	288499.07	4012504.67	85.92	85.92
DISCCART	288143.95	4012451.32	85.33	85.33
DISCCART	288026.59	4012343.11	85.54	85.54
DISCCART	288006.77	4012271.47	85.27	85.27
DISCCART	287996.11	4012192.22	85.12	85.12
DISCCART	287980.86	4012154.12	84.74	84.74
DISCCART	288012.87	4012050.48	84.81	84.81
DISCCART	288011.35	4011997.13	84.92	84.92
DISCCART	287938.19	4011812.71	85.03	85.03
DISCCART	287915.33	4011670.97	83.99	83.99
DISCCART	288040.31	4011799.00	84.96	84.96
DISCCART	288307.03	4011818.81	84.71	84.71
DISCCART	288611.85	4011859.96	85.27	85.27
DISCCART	288706.35	4011872.15	85.33	85.33
DISCCART	288709.39	4011931.60	85.25	85.25
DISCCART	288685.01	4012088.58	85.82	85.82
DISCCART	288674.34	4012283.67	85.75	85.75
DISCCART	288671.29	4012465.04	86.27	86.27
DISCCART	288610.33	4012586.97	86.00	86.00
DISCCART	288139.37	4012641.84	85.74	85.74
DISCCART	288075.36	4012554.96	85.47	85.47
DISCCART	287860.46	4012750.05	85.34	85.34
DISCCART	287672.99	4012708.90	84.92	84.92
DISCCART	287962.57	4012340.06	85.41	85.41
DISCCART	287781.20	4012341.58	84.84	84.84
DISCCART	287910.75	4012273.00	85.23	85.23
DISCCART	287813.21	4012251.66	84.64	84.64
DISCCART	287834.55	4012152.59	84.45	84.45
DISCCART	287915.33	4012094.68	84.57	84.57
DISCCART	287793.40	4012032.19	84.55	84.55
DISCCART	287912.28	4012021.52	84.66	84.66
DISCCART	287829.98	4011945.31	84.75	84.75
DISCCART	287828.45	4011827.96	84.83	84.83

DISCCART	288281.12	4011664.87	84.76	84.76
DISCCART	288451.82	4011783.76	84.55	84.55
DISCCART	288364.94	4011594.76	84.69	84.69
DISCCART	288640.81	4011721.27	85.43	85.43
DISCCART	288662.15	4011574.95	85.69	85.69
DISCCART	288846.57	4011670.97	85.62	85.62
DISCCART	288854.19	4011820.33	85.69	85.69
DISCCART	288817.61	4011949.89	85.42	85.42
DISCCART	288797.79	4012213.56	86.01	86.01
DISCCART	288808.46	4012375.11	85.99	85.99
DISCCART	288796.27	4012580.87	86.58	86.58
DISCCART	288529.55	4012687.56	85.94	85.94
DISCCART	288741.40	4012739.38	86.31	86.31
DISCCART	288183.57	4012737.86	85.51	85.51
DISCCART	288252.16	4012765.29	85.45	85.45
DISCCART	288060.67	4012788.51	85.44	85.44
DISCCART	288127.68	4012902.68	85.31	85.31
DISCCART	287953.95	4013106.18	85.76	85.76
DISCCART	287733.07	4012897.71	85.43	85.43
DISCCART	287385.62	4012726.47	84.82	84.82
DISCCART	287340.95	4012341.79	84.54	84.54
DISCCART	287524.60	4012349.23	84.59	84.59
DISCCART	287559.34	4012177.99	84.28	84.28
DISCCART	287331.02	4012158.14	84.52	84.52
DISCCART	287541.97	4012016.67	84.13	84.13
DISCCART	287648.69	4011892.58	84.56	84.56
DISCCART	287363.28	4011947.18	84.37	84.37
DISCCART	287348.39	4011718.86	84.49	84.49
DISCCART	287569.27	4011612.14	84.22	84.22
DISCCART	287410.44	4011306.88	82.92	82.92
DISCCART	287611.46	4011381.33	83.62	83.62
DISCCART	287772.78	4011257.24	84.71	84.71
DISCCART	287819.93	4011413.60	84.29	84.29
DISCCART	288043.29	4011222.50	84.31	84.31
DISCCART	288217.02	4011440.90	85.17	85.17
DISCCART	288413.08	4011304.40	85.12	85.12
DISCCART	288797.76	4011331.70	85.07	85.07
DISCCART	289060.83	4011272.14	85.33	85.33
DISCCART	289242.00	4011455.79	85.67	85.67
DISCCART	288956.60	4011517.83	85.24	85.24
DISCCART	289217.18	4011731.27	85.91	85.91
DISCCART	289078.20	4011875.21	86.04	86.04
DISCCART	289187.40	4012088.65	86.17	86.17
DISCCART	288884.62	4012083.68	86.06	86.06
DISCCART	289063.31	4012321.94	86.15	86.15
DISCCART	289202.29	4012562.67	86.49	86.49
DISCCART	288988.86	4012545.30	86.74	86.74
DISCCART	289031.05	4012758.73	86.45	86.45
DISCCART	288976.45	4012934.94	86.35	86.35
DISCCART	288780.39	4013019.32	86.86	86.86

```
   DISCCART    289174.99   4012979.61   87.30   87.30
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
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**
**
ME STARTING
   SURFFILE visalia-muni-93144\Visalia_07-10.SFC
   PROFFILE visalia-muni-93144\Visalia_07-10.PFL
   SURFDATA 93144 2007
   UAIRDATA 23230 2007 OAKLAND/WSO_AP
   PROFBASE 89.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 AREA1 1ST "24013 - Santa Fe West Subdivision HRA.AD\01H1G001.PLT" 31
   PLOTFILE ANNUAL AREA1 "24013 - Santa Fe West Subdivision HRA.AD\AN00G001.PLT" 32
   SUMMFILE "24013 - Santa Fe West Subdivision HRA.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W187     163       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


 ***********************************
 *** SETUP Finishes Successfully ***
```

```
 **********************************

↑ *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                      ***        08:13:31

                                 PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                          ***     MODEL SETUP OPTIONS SUMMARY
 ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses RURAL Dispersion Only.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Assumes No FLAGPOLE Receptor Heights.
      * The User Specified a Pollutant Type of: OTHER

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates ANNUAL Averages

 **This Run Includes:      1 Source(s);       1 Source Group(s); and     101
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                 and:      0 SWPOINT source(s)
```

```
 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  21112

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and
Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    89.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                              ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Input Runstream File:          aermod.inp

 **Output Print File:             aermod.out


 **Detailed Error/Message File:   24013 - Santa Fe West Subdivision HRA.err

 **File for Summary of Results:   24013 - Santa Fe West Subdivision HRA.sum

 *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                      ***        08:13:31

                                 PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE  AIRCRAFT
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF AREA
```

```
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 AREA1            0   0.65261E-05  288098.7 4011966.1    85.0     4.00    385.00
398.00      0.00     0.00     NO                     NO
↑ *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                       ***        08:13:31

                                  PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                SOURCE IDs
 -----------                                                ----------


  AREA1      AREA1       ,
↑ *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                       ***        08:13:31

                                  PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                            *** DISCRETE CARTESIAN RECEPTORS ***
                                          (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                          (METERS)

     ( 288124.1, 4012390.4,      85.3,      85.3,       0.0);         ( 288075.4,
4012323.3,      85.1,      85.1,       0.0);
     ( 288073.8, 4012265.4,      85.3,      85.3,       0.0);         ( 288072.3,
4012189.2,      85.1,      85.1,       0.0);
     ( 288073.8, 4012053.5,      85.2,      85.2,       0.0);         ( 288072.3,
4012004.8,      85.1,      85.1,       0.0);
     ( 288019.0, 4011882.8,      85.2,      85.2,       0.0);         ( 288174.4,
4011907.2,      85.2,      85.2,       0.0);
     ( 288384.8, 4011928.5,      85.2,      85.2,       0.0);         ( 288441.1,
4011876.7,      85.1,      85.1,       0.0);
     ( 288593.6, 4011963.6,      85.3,      85.3,       0.0);         ( 288582.9,
4012036.8,      85.6,      85.6,       0.0);
     ( 288541.7, 4012193.7,      85.6,      85.6,       0.0);         ( 288537.2,
4012242.5,      85.5,      85.5,       0.0);
```

(288523.5, 4012318.7, 85.8, 85.8, 0.0); (288515.8, 4012356.8, 85.8, 85.8, 0.0);
(288515.8, 4012411.7, 86.0, 86.0, 0.0); (288499.1, 4012504.7, 85.9, 85.9, 0.0);
(288144.0, 4012451.3, 85.3, 85.3, 0.0); (288026.6, 4012343.1, 85.5, 85.5, 0.0);
(288006.8, 4012271.5, 85.3, 85.3, 0.0); (287996.1, 4012192.2, 85.1, 85.1, 0.0);
(287980.9, 4012154.1, 84.7, 84.7, 0.0); (288012.9, 4012050.5, 84.8, 84.8, 0.0);
(288011.3, 4011997.1, 84.9, 84.9, 0.0); (287938.2, 4011812.7, 85.0, 85.0, 0.0);
(287915.3, 4011671.0, 84.0, 84.0, 0.0); (288040.3, 4011799.0, 85.0, 85.0, 0.0);
(288307.0, 4011818.8, 84.7, 84.7, 0.0); (288611.8, 4011860.0, 85.3, 85.3, 0.0);
(288706.3, 4011872.1, 85.3, 85.3, 0.0); (288709.4, 4011931.6, 85.2, 85.2, 0.0);
(288685.0, 4012088.6, 85.8, 85.8, 0.0); (288674.3, 4012283.7, 85.8, 85.8, 0.0);
(288671.3, 4012465.0, 86.3, 86.3, 0.0); (288610.3, 4012587.0, 86.0, 86.0, 0.0);
(288139.4, 4012641.8, 85.7, 85.7, 0.0); (288075.4, 4012555.0, 85.5, 85.5, 0.0);
(287860.5, 4012750.0, 85.3, 85.3, 0.0); (287673.0, 4012708.9, 84.9, 84.9, 0.0);
(287962.6, 4012340.1, 85.4, 85.4, 0.0); (287781.2, 4012341.6, 84.8, 84.8, 0.0);
(287910.8, 4012273.0, 85.2, 85.2, 0.0); (287813.2, 4012251.7, 84.6, 84.6, 0.0);
(287834.5, 4012152.6, 84.5, 84.5, 0.0); (287915.3, 4012094.7, 84.6, 84.6, 0.0);
(287793.4, 4012032.2, 84.5, 84.5, 0.0); (287912.3, 4012021.5, 84.7, 84.7, 0.0);
(287830.0, 4011945.3, 84.8, 84.8, 0.0); (287828.5, 4011828.0, 84.8, 84.8, 0.0);
(288281.1, 4011664.9, 84.8, 84.8, 0.0); (288451.8, 4011783.8, 84.5, 84.5, 0.0);
(288364.9, 4011594.8, 84.7, 84.7, 0.0); (288640.8, 4011721.3, 85.4, 85.4, 0.0);
(288662.1, 4011574.9, 85.7, 85.7, 0.0); (288846.6, 4011671.0, 85.6, 85.6, 0.0);
(288854.2, 4011820.3, 85.7, 85.7, 0.0); (288817.6, 4011949.9, 85.4, 85.4, 0.0);
(288797.8, 4012213.6, 86.0, 86.0, 0.0); (288808.5, 4012375.1, 86.0, 86.0, 0.0);
(288796.3, 4012580.9, 86.6, 86.6, 0.0); (288529.5, 4012687.6, 85.9, 85.9, 0.0);
(288741.4, 4012739.4, 86.3, 86.3, 0.0); (288183.6, 4012737.9, 85.5, 85.5, 0.0);

(288252.2, 4012765.3, 85.5, 85.5, 0.0); (288060.7, 4012788.5, 85.4, 85.4, 0.0);
(288127.7, 4012902.7, 85.3, 85.3, 0.0); (287954.0, 4013106.2, 85.8, 85.8, 0.0);
(287733.1, 4012897.7, 85.4, 85.4, 0.0); (287385.6, 4012726.5, 84.8, 84.8, 0.0);
(287341.0, 4012341.8, 84.5, 84.5, 0.0); (287524.6, 4012349.2, 84.6, 84.6, 0.0);
(287559.3, 4012178.0, 84.3, 84.3, 0.0); (287331.0, 4012158.1, 84.5, 84.5, 0.0);
(287542.0, 4012016.7, 84.1, 84.1, 0.0); (287648.7, 4011892.6, 84.6, 84.6, 0.0);
(287363.3, 4011947.2, 84.4, 84.4, 0.0); (287348.4, 4011718.9, 84.5, 84.5, 0.0);
(287569.3, 4011612.1, 84.2, 84.2, 0.0); (287410.4, 4011306.9, 82.9, 82.9, 0.0);
(287611.5, 4011381.3, 83.6, 83.6, 0.0); (287772.8, 4011257.2, 84.7, 84.7, 0.0);
(287819.9, 4011413.6, 84.3, 84.3, 0.0); (288043.3, 4011222.5, 84.3, 84.3, 0.0);
(288217.0, 4011440.9, 85.2, 85.2, 0.0); (288413.1, 4011304.4, 85.1, 85.1, 0.0);
(288797.8, 4011331.7, 85.1, 85.1, 0.0); (289060.8, 4011272.1, 85.3, 85.3, 0.0);
(289242.0, 4011455.8, 85.7, 85.7, 0.0); (288956.6, 4011517.8, 85.2, 85.2, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(289217.2, 4011731.3, 85.9, 85.9, 0.0); (289078.2, 4011875.2, 86.0, 86.0, 0.0);
(289187.4, 4012088.6, 86.2, 86.2, 0.0); (288884.6, 4012083.7, 86.1, 86.1, 0.0);
(289063.3, 4012321.9, 86.1, 86.1, 0.0); (289202.3, 4012562.7, 86.5, 86.5, 0.0);
(288988.9, 4012545.3, 86.7, 86.7, 0.0); (289031.0, 4012758.7, 86.5, 86.5, 0.0);
(288976.5, 4012934.9, 86.3, 86.3, 0.0); (288780.4, 4013019.3, 86.9, 86.9, 0.0);
(289175.0, 4012979.6, 87.3, 87.3, 0.0);

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54,   3.09,   5.14,   8.23,   10.80,

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

```
   Surface file:   visalia-muni-93144\Visalia_07-10.SFC
                 Met Version:  21112
   Profile file:   visalia-muni-93144\Visalia_07-10.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:    93144                  Upper air station no.:    23230
                  Name: UNKNOWN                                     Name:
OAKLAND/WSO_AP
                  Year:   2007                                      Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
 07 01 01   1 01 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  277.1    2.0
 07 01 01   1 02 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  276.1    2.0
 07 01 01   1 03 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  276.1    2.0
 07 01 01   1 04  -11.5  0.137 -9.000 -9.000 -999.  121.     20.5  0.02   0.79
1.00    2.36  123.   10.0  274.1    2.0
 07 01 01   1 05 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  273.1    2.0
 07 01 01   1 06   -6.3  0.100 -9.000 -9.000 -999.   75.     14.3  0.02   0.79
1.00    1.76  122.   10.0  273.1    2.0
 07 01 01   1 07  -11.5  0.137 -9.000 -9.000 -999.  121.     20.5  0.02   0.79
1.00    2.36  125.   10.0  272.1    2.0
 07 01 01   1 08  -19.9  0.200 -9.000 -9.000 -999.  214.     43.8  0.02   0.79
0.63    3.36  143.   10.0  274.1    2.0
 07 01 01   1 09   -3.6  0.174 -9.000 -9.000 -999.  175.    134.1  0.02   0.79
0.35    2.86  147.   10.0  275.1    2.0
 07 01 01   1 10    8.7  0.192  0.218  0.011   43.  201.    -73.0  0.02   0.79
0.26    2.86  141.   10.0  276.1    2.0
 07 01 01   1 11   16.3  0.248  0.321  0.012   73.  296.    -84.4  0.03   0.79
0.22    3.36  184.   10.0  276.1    2.0
 07 01 01   1 12   20.2 -9.000 -9.000 -9.000  140. -999. -99999.0  0.02   0.79
0.21    0.00    0.   10.0  276.1    2.0
 07 01 01   1 13   20.5  0.182  0.472  0.012  185.  187.    -26.7  0.03   0.79
0.21    2.36  163.   10.0  278.1    2.0
 07 01 01   1 14   16.9  0.212  0.471  0.011  223.  234.    -51.0  0.03   0.79
0.22    2.86  169.   10.0  279.1    2.0
 07 01 01   1 15   52.0  0.226  0.810  0.012  368.  258.    -20.0  0.03   0.79
0.25    2.86  162.   10.0  281.1    2.0
 07 01 01   1 16   10.8  0.132  0.482  0.012  375.  119.    -19.3  0.02   0.79
0.35    1.76  224.   10.0  282.1    2.0
```

```
 07 01 01   1 17 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
0.61    0.00    0.   10.0  280.1    2.0
 07 01 01   1 18  -11.7  0.139 -9.000 -9.000 -999.  125.     21.3  0.02   0.79
1.00    2.36   17.   10.0  278.1    2.0
 07 01 01   1 19  -11.6  0.138 -9.000 -9.000 -999.  123.     20.9  0.02   0.79
1.00    2.36   34.   10.0  278.1    2.0
 07 01 01   1 20 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  277.1    2.0
 07 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  276.1    2.0
 07 01 01   1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  274.1    2.0
 07 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  274.1    2.0
 07 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.02   0.79
1.00    0.00    0.   10.0  274.1    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01   10.0 1 -999.  -99.00   277.2   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                      ***        08:13:31

                                 PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   4
YEARS FOR SOURCE GROUP: AREA1    ***
                                 INCLUDING SOURCE(S):     AREA1       ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF OTHER    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         288124.13    4012390.36       26.12885                      288075.36
4012323.29       28.76425
         288073.84    4012265.38       28.90464                      288072.31
4012189.17       27.14984
         288073.84    4012053.53       18.69348                      288072.31
```

4012004.75 12.23793
288018.97 4011882.82 2.67615 288174.43
4011907.21 10.20056
288384.76 4011928.55 29.80336 288441.15
4011876.73 21.19149
288593.56 4011963.60 22.04621 288582.89
4012036.76 22.91207
288541.74 4012193.74 23.76448 288537.17
4012242.52 20.77189
288523.45 4012318.72 13.93465 288515.83
4012356.83 9.27157
288515.83 4012411.69 5.66022 288499.07
4012504.67 3.77244
288143.95 4012451.32 16.02060 288026.59
4012343.11 22.30392
288006.77 4012271.47 20.56550 287996.11
4012192.22 17.72689
287980.86 4012154.12 14.80672 288012.87
4012050.48 11.47397
288011.35 4011997.13 7.26665 287938.19
4011812.71 1.55124
287915.33 4011670.97 0.91155 288040.31
4011799.00 1.90991
288307.03 4011818.81 9.58504 288611.85
4011859.96 16.99676
288706.35 4011872.15 12.94156 288709.39
4011931.60 13.02950
288685.01 4012088.58 11.49508 288674.34
4012283.67 5.01579
288671.29 4012465.04 2.12264 288610.33
4012586.97 1.99519
288139.37 4012641.84 5.15502 288075.36
4012554.96 8.68702
287860.46 4012750.05 4.28525 287672.99
4012708.90 4.44109
287962.57 4012340.06 16.75081 287781.20
4012341.58 8.66246
287910.75 4012273.00 13.32995 287813.21
4012251.66 8.82709
287834.55 4012152.59 7.38954 287915.33
4012094.68 8.32119
287793.40 4012032.19 3.89433 287912.28
4012021.52 5.46127
287829.98 4011945.31 2.65111 287828.45
4011827.96 1.39847
288281.12 4011664.87 3.32484 288451.82
4011783.76 11.83869
288364.94 4011594.76 3.34938 288640.81
4011721.27 10.27053
288662.15 4011574.95 6.03591 288846.57

4011670.97 7.43166
288854.19 4011820.33 7.95887 288817.61
4011949.89 8.28905
288797.79 4012213.56 3.98079 288808.46
4012375.11 1.73351
288796.27 4012580.87 1.14434 288529.55
4012687.56 1.85836
288741.40 4012739.38 1.08891 288183.57
4012737.86 3.13293
288252.16 4012765.29 2.47756 288060.67
4012788.51 3.20474
288127.68 4012902.68 1.98924 287953.95
4013106.18 1.47638
287733.07 4012897.71 2.92134 287385.62
4012726.47 3.25027
287340.95 4012341.79 2.78087 287524.60
4012349.23 4.23895
287559.34 4012177.99 3.44955 287331.02
4012158.14 2.10630
287541.97 4012016.67 2.11590 287648.69
4011892.58 1.47966
287363.28 4011947.18 1.28929 287348.39
4011718.86 0.60442
287569.27 4011612.14 0.57291 287410.44
4011306.88 0.30124

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 4 YEARS FOR SOURCE GROUP: AREA1 ***
INCLUDING SOURCE(S): AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC
- -
287611.46 4011381.33 0.36093 287772.78
4011257.24 0.33277
287819.93 4011413.60 0.44749 288043.29

```
4011222.50        0.53835
         288217.02    4011440.90        1.26641                             288413.08
4011304.40        1.52170
         288797.76    4011331.70        3.17761                             289060.83
4011272.14        3.25725
         289242.00    4011455.79        3.39470                             288956.60
4011517.83        5.20950
         289217.18    4011731.27        3.10058                             289078.20
4011875.21        3.79686
         289187.40    4012088.65        1.93249                             288884.62
4012083.68        4.59217
         289063.31    4012321.94        1.15316                             289202.29
4012562.67        0.49819
         288988.86    4012545.30        0.73943                             289031.05
4012758.73        0.55427
         288976.45    4012934.94        0.56788                             288780.39
4013019.32        0.68579
         289174.99    4012979.61        0.38826

↑ *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                       ***        08:13:31

                                  PAGE  10
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  AREA1    ***
                                  INCLUDING SOURCE(S):     AREA1       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF OTHER    IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        288124.13   4012390.36      293.75564  (07120103)                288075.36
4012323.29      306.58504  (07120103)
        288073.84   4012265.38      277.54422  (07120103)                288072.31
4012189.17      263.55492  (07010604)
        288073.84   4012053.53      261.42775  (07030522)                288072.31
4012004.75      261.72328  (07030522)
        288018.97   4011882.82      229.52126  (08012224)                288174.43
4011907.21      237.66202  (08010101)
        288384.76   4011928.55      243.22447  (07010301)                288441.15
```

4011876.73 228.68539 (07010301)
288593.56 4011963.60 213.90651 (09010103) 288582.89
4012036.76 212.71421 (09122305)
288541.74 4012193.74 217.16779 (09120918) 288537.17
4012242.52 215.86263 (08121922)
288523.45 4012318.72 243.73944 (07011624) 288515.83
4012356.83 251.99391 (07020822)
288515.83 4012411.69 247.69283 (07120723) 288499.07
4012504.67 194.65745 (07030701)
288143.95 4012451.32 226.86806 (09120603) 288026.59
4012343.11 278.95606 (07120103)
288006.77 4012271.47 255.19733 (07010604) 287996.11
4012192.22 251.22661 (07010604)
287980.86 4012154.12 242.14276 (07010604) 288012.87
4012050.48 249.00648 (07010604)
288011.35 4011997.13 246.20915 (07030522) 287938.19
4011812.71 189.63766 (07122407)
287915.33 4011670.97 155.00500 (09011307) 288040.31
4011799.00 196.42691 (08010101)
288307.03 4011818.81 193.96548 (08011906) 288611.85
4011859.96 206.89277 (07011002)
288706.35 4011872.15 173.03460 (09010103) 288709.39
4011931.60 169.82565 (09122305)
288685.01 4012088.58 171.22266 (09011005) 288674.34
4012283.67 168.72356 (08121922)
288671.29 4012465.04 180.53282 (07011624) 288610.33
4012586.97 168.09418 (07042203)
288139.37 4012641.84 157.33587 (09031206) 288075.36
4012554.96 185.79188 (07121918)
287860.46 4012750.05 139.04463 (07022405) 287672.99
4012708.90 154.33586 (07120103)
287962.57 4012340.06 211.71372 (07120103) 287781.20
4012341.58 153.61906 (07010604)
287910.75 4012273.00 217.63043 (07010604) 287813.21
4012251.66 188.03202 (07010604)
287834.55 4012152.59 192.73914 (07010604) 287915.33
4012094.68 215.56562 (07010604)
287793.40 4012032.19 171.92960 (07030522) 287912.28
4012021.52 204.82127 (07030522)
287829.98 4011945.31 170.46710 (07030522) 287828.45
4011827.96 159.91136 (10122806)
288281.12 4011664.87 153.91807 (09122403) 288451.82
4011783.76 187.27147 (10021001)
288364.94 4011594.76 141.64725 (09122306) 288640.81
4011721.27 167.71315 (08013007)
288662.15 4011574.95 141.32992 (07010301) 288846.57
4011670.97 134.48038 (07010621)
288854.19 4011820.33 138.58782 (08011519) 288817.61
4011949.89 143.58729 (09011502)
288797.79 4012213.56 143.17987 (08121922) 288808.46

4012375.11   130.83705 (08011702)
        288796.27   4012580.87   143.85575 (07011624)   288529.55
4012687.56   132.87277 (08011920)
        288741.40   4012739.38   128.92965 (07042203)   288183.57
4012737.86   137.96416 (08010801)
        288252.16   4012765.29   133.10843 (08020501)   288060.67
4012788.51   131.98767 (09031206)
        288127.68   4012902.68   116.72259 (08010801)   287953.95
4013106.18   98.56344 (09031206)
        287733.07   4012897.71   114.96049 (08011804)   287385.62
4012726.47   98.56139 (07011407)
        287340.95   4012341.79   100.69428 (07010604)   287524.60
4012349.23   113.70843 (10123107)
        287559.34   4012177.99   142.86931 (07010604)   287331.02
4012158.14   116.67882 (07010604)
        287541.97   4012016.67   130.58683 (07030522)   287648.69
4011892.58   130.95106 (07020406)
        287363.28   4011947.18   112.98434 (07030522)   287348.39
4011718.86   99.18981 (07021520)
        287569.27   4011612.14   111.78667 (10013004)   287410.44
4011306.88   87.18483 (10010622)

↑ *** AERMOD - VERSION 24142 ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West Subdivision HRA\24013 - S ***   03/20/25
*** AERMET - VERSION 21112 ***   ***   ***   08:13:31

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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: AREA1   ***
INCLUDING SOURCE(S):   AREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER   IN MICROGRAMS/M**3 **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
- -
        287611.46   4011381.33   101.15726 (07021521)   287772.78
4011257.24   98.70258 (08010101)
        287819.93   4011413.60   114.99853 (08010101)   288043.29
4011222.50   97.97696 (09020703)
        288217.02   4011440.90   119.36008 (09122403)   288413.08
4011304.40   108.20130 (09122306)
        288797.76   4011331.70   108.50611 (07010301)   289060.83

```
4011272.14       90.99447  (07122120)
        289242.00   4011455.79       89.19714  (09032306)                288956.60
4011517.83      112.21768  (07021203)
        289217.18   4011731.27       96.31870  (08010704)                289078.20
4011875.21      108.81760  (09031001)
        289187.40   4012088.65       98.14632  (08031406)                288884.62
4012083.68      129.82473  (08121924)
        289063.31   4012321.94       98.08031  (09120722)                289202.29
4012562.67       86.53834  (09012105)
        288988.86   4012545.30      105.12185  (10120322)                289031.05
4012758.73      106.00070  (07011624)
        288976.45   4012934.94       91.04421  (07120723)                288780.39
4013019.32       90.11915  (08012023)
        289174.99   4012979.61       84.04774  (07020822)

 *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                       ***       08:13:31

                                 PAGE  12
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                  *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   4 YEARS ***


                                   ** CONC OF OTHER    IN MICROGRAMS/M**3
               **


                        NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV,
ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

AREA1     1ST HIGHEST VALUE IS      29.80336 AT (  288384.76,  4011928.55,    85.23,
   85.23,    0.00)  DC
          2ND HIGHEST VALUE IS      28.90464 AT (  288073.84,  4012265.38,    85.30,
   85.30,    0.00)  DC
          3RD HIGHEST VALUE IS      28.76425 AT (  288075.36,  4012323.29,    85.11,
   85.11,    0.00)  DC
          4TH HIGHEST VALUE IS      27.14984 AT (  288072.31,  4012189.17,    85.11,
   85.11,    0.00)  DC
          5TH HIGHEST VALUE IS      26.12885 AT (  288124.13,  4012390.36,    85.30,
   85.30,    0.00)  DC
          6TH HIGHEST VALUE IS      23.76448 AT (  288541.74,  4012193.74,    85.62,
   85.62,    0.00)  DC
          7TH HIGHEST VALUE IS      22.91207 AT (  288582.89,  4012036.76,    85.62,
```

```
   85.62,    0.00)  DC
          8TH HIGHEST VALUE IS      22.30392 AT (  288026.59,  4012343.11,    85.54,
   85.54,    0.00)  DC
          9TH HIGHEST VALUE IS      22.04621 AT (  288593.56,  4011963.60,    85.35,
   85.35,    0.00)  DC
         10TH HIGHEST VALUE IS      21.19149 AT (  288441.15,  4011876.73,    85.12,
   85.12,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
🡅 *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                       ***        08:13:31

                                  PAGE  13
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                                *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                    ** CONC OF OTHER    IN MICROGRAMS/M**3
               **

                                                        DATE
                                            NETWORK
GROUP ID                            AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

AREA1    HIGH   1ST HIGH VALUE IS     306.58504  ON 07120103: AT (  288075.36,
4012323.29,    85.11,    85.11,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
🡅 *** AERMOD - VERSION 24142  ***   *** C:\Lakes\AERMOD View\24013 - Santa Fe West
Subdivision HRA\24013 - S ***        03/20/25
 *** AERMET - VERSION  21112 ***   ***
                       ***        08:13:31

                                  PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*
```

```
*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            1 Warning Message(s)
A Total of        10959 Informational Message(s)

A Total of        35064 Hours Were Processed

A Total of         9719 Calm Hours Identified

A Total of         1240 Missing Hours Identified (  3.54 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
ME W187     163       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
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Appendix C. HARP 2 ADMRT Calculation Results

Prepared by Core Environmental Consulting:

Jesse Madsen, Owner, Principal Environmental Scientist
Clovis, CA

March 2025

Project Site

CORE ENVIRONMENTAL CONSULTING Core Environmental Consulting Clovis, CA 93612 (559) 202-3941	PROJECT NAME **Santa Fe West Subdivision**	DATE **3/20/25**	SCALE **NOT TO SCALE**	**APPENDIX C RECEPTOR MAP**
	PROJECT NUMBER **24013**	DRAWN BY **JM**	LAT/LONG **36.231321, -119.355838**	

**HARP - Air Dispersion Modeling and Risk Tool v22118
**3/20/2025
**Exported Risk Results

REC	GRP	X	Y	RISK_SUM	SCENARIO	INHAL_RISK
1	ALL	288124.1	4012390	3.15E-06	3YrCancerDerived_Inh	3.15E-06
2	ALL	288075.4	4012323	3.47E-06	3YrCancerDerived_Inh	3.47E-06
3	ALL	288073.8	4012265	3.48E-06	3YrCancerDerived_Inh	3.48E-06
4	ALL	288072.3	4012189	3.27E-06	3YrCancerDerived_Inh	3.27E-06
5	ALL	288073.8	4012054	2.25E-06	3YrCancerDerived_Inh	2.25E-06
6	ALL	288072.3	4012005	1.48E-06	3YrCancerDerived_Inh	1.48E-06
7	ALL	288019	4011883	3.23E-07	3YrCancerDerived_Inh	3.23E-07
8	ALL	288174.4	4011907	1.23E-06	3YrCancerDerived_Inh	1.23E-06
9	ALL	288384.8	4011929	3.59E-06	3YrCancerDerived_Inh	3.59E-06
10	ALL	288441.2	4011877	2.55E-06	3YrCancerDerived_Inh	2.55E-06
11	ALL	288593.6	4011964	2.66E-06	3YrCancerDerived_Inh	2.66E-06
12	ALL	288582.9	4012037	2.76E-06	3YrCancerDerived_Inh	2.76E-06
13	ALL	288541.7	4012194	2.87E-06	3YrCancerDerived_Inh	2.87E-06
14	ALL	288537.2	4012243	2.50E-06	3YrCancerDerived_Inh	2.50E-06
15	ALL	288523.5	4012319	1.68E-06	3YrCancerDerived_Inh	1.68E-06
16	ALL	288515.8	4012357	1.12E-06	3YrCancerDerived_Inh	1.12E-06
17	ALL	288515.8	4012412	6.82E-07	3YrCancerDerived_Inh	6.82E-07
18	ALL	288499.1	4012505	4.55E-07	3YrCancerDerived_Inh	4.55E-07
19	ALL	288144	4012451	1.93E-06	3YrCancerDerived_Inh	1.93E-06
20	ALL	288026.6	4012343	2.69E-06	3YrCancerDerived_Inh	2.69E-06
21	ALL	288006.8	4012271	2.48E-06	3YrCancerDerived_Inh	2.48E-06
22	ALL	287996.1	4012192	2.14E-06	3YrCancerDerived_Inh	2.14E-06
23	ALL	287980.9	4012154	1.79E-06	3YrCancerDerived_Inh	1.79E-06
24	ALL	288012.9	4012050	1.38E-06	3YrCancerDerived_Inh	1.38E-06
25	ALL	288011.4	4011997	8.76E-07	3YrCancerDerived_Inh	8.76E-07
26	ALL	287938.2	4011813	1.87E-07	3YrCancerDerived_Inh	1.87E-07
27	ALL	287915.3	4011671	1.10E-07	3YrCancerDerived_Inh	1.10E-07
28	ALL	288040.3	4011799	2.30E-07	3YrCancerDerived_Inh	2.30E-07
29	ALL	288307	4011819	1.16E-06	3YrCancerDerived_Inh	1.16E-06
30	ALL	288611.9	4011860	2.05E-06	3YrCancerDerived_Inh	2.05E-06
31	ALL	288706.4	4011872	1.56E-06	3YrCancerDerived_Inh	1.56E-06
32	ALL	288709.4	4011932	1.57E-06	3YrCancerDerived_Inh	1.57E-06
33	ALL	288685	4012089	1.39E-06	3YrCancerDerived_Inh	1.39E-06
34	ALL	288674.3	4012284	6.05E-07	3YrCancerDerived_Inh	6.05E-07
35	ALL	288671.3	4012465	2.56E-07	3YrCancerDerived_Inh	2.56E-07
36	ALL	288610.3	4012587	2.41E-07	3YrCancerDerived_Inh	2.41E-07
37	ALL	288139.4	4012642	6.22E-07	3YrCancerDerived_Inh	6.22E-07
38	ALL	288075.4	4012555	1.05E-06	3YrCancerDerived_Inh	1.05E-06
39	ALL	287860.5	4012750	5.17E-07	3YrCancerDerived_Inh	5.17E-07
40	ALL	287673	4012709	5.35E-07	3YrCancerDerived_Inh	5.35E-07

41	ALL	287962.6	4012340	2.02E-06	3YrCancerDerived_Inh	2.02E-06
42	ALL	287781.2	4012342	1.04E-06	3YrCancerDerived_Inh	1.04E-06
43	ALL	287910.8	4012273	1.61E-06	3YrCancerDerived_Inh	1.61E-06
44	ALL	287813.2	4012252	1.06E-06	3YrCancerDerived_Inh	1.06E-06
45	ALL	287834.6	4012153	8.91E-07	3YrCancerDerived_Inh	8.91E-07
46	ALL	287915.3	4012095	1.00E-06	3YrCancerDerived_Inh	1.00E-06
47	ALL	287793.4	4012032	4.70E-07	3YrCancerDerived_Inh	4.70E-07
48	ALL	287912.3	4012022	6.58E-07	3YrCancerDerived_Inh	6.58E-07
49	ALL	287830	4011945	3.20E-07	3YrCancerDerived_Inh	3.20E-07
50	ALL	287828.5	4011828	1.69E-07	3YrCancerDerived_Inh	1.69E-07
51	ALL	288281.1	4011665	4.01E-07	3YrCancerDerived_Inh	4.01E-07
52	ALL	288451.8	4011784	1.43E-06	3YrCancerDerived_Inh	1.43E-06
53	ALL	288364.9	4011595	4.04E-07	3YrCancerDerived_Inh	4.04E-07
54	ALL	288640.8	4011721	1.24E-06	3YrCancerDerived_Inh	1.24E-06
55	ALL	288662.2	4011575	7.28E-07	3YrCancerDerived_Inh	7.28E-07
56	ALL	288846.6	4011671	8.96E-07	3YrCancerDerived_Inh	8.96E-07
57	ALL	288854.2	4011820	9.60E-07	3YrCancerDerived_Inh	9.60E-07
58	ALL	288817.6	4011950	9.99E-07	3YrCancerDerived_Inh	9.99E-07
59	ALL	288797.8	4012214	4.80E-07	3YrCancerDerived_Inh	4.80E-07
60	ALL	288808.5	4012375	2.09E-07	3YrCancerDerived_Inh	2.09E-07
61	ALL	288796.3	4012581	1.38E-07	3YrCancerDerived_Inh	1.38E-07
62	ALL	288529.6	4012688	2.24E-07	3YrCancerDerived_Inh	2.24E-07
63	ALL	288741.4	4012739	1.31E-07	3YrCancerDerived_Inh	1.31E-07
64	ALL	288183.6	4012738	3.78E-07	3YrCancerDerived_Inh	3.78E-07
65	ALL	288252.2	4012765	2.99E-07	3YrCancerDerived_Inh	2.99E-07
66	ALL	288060.7	4012789	3.86E-07	3YrCancerDerived_Inh	3.86E-07
67	ALL	288127.7	4012903	2.40E-07	3YrCancerDerived_Inh	2.40E-07
68	ALL	287954	4013106	1.78E-07	3YrCancerDerived_Inh	1.78E-07
69	ALL	287733.1	4012898	3.52E-07	3YrCancerDerived_Inh	3.52E-07
70	ALL	287385.6	4012726	3.92E-07	3YrCancerDerived_Inh	3.92E-07
71	ALL	287341	4012342	3.35E-07	3YrCancerDerived_Inh	3.35E-07
72	ALL	287524.6	4012349	5.11E-07	3YrCancerDerived_Inh	5.11E-07
73	ALL	287559.3	4012178	4.16E-07	3YrCancerDerived_Inh	4.16E-07
74	ALL	287331	4012158	2.54E-07	3YrCancerDerived_Inh	2.54E-07
75	ALL	287542	4012017	2.55E-07	3YrCancerDerived_Inh	2.55E-07
76	ALL	287648.7	4011893	1.78E-07	3YrCancerDerived_Inh	1.78E-07
77	ALL	287363.3	4011947	1.55E-07	3YrCancerDerived_Inh	1.55E-07
78	ALL	287348.4	4011719	7.29E-08	3YrCancerDerived_Inh	7.29E-08
79	ALL	287569.3	4011612	6.91E-08	3YrCancerDerived_Inh	6.91E-08
80	ALL	287410.4	4011307	3.63E-08	3YrCancerDerived_Inh	3.63E-08
81	ALL	287611.5	4011381	4.35E-08	3YrCancerDerived_Inh	4.35E-08
82	ALL	287772.8	4011257	4.01E-08	3YrCancerDerived_Inh	4.01E-08
83	ALL	287819.9	4011414	5.40E-08	3YrCancerDerived_Inh	5.40E-08
84	ALL	288043.3	4011223	6.49E-08	3YrCancerDerived_Inh	6.49E-08

85	ALL	288217	4011441	1.53E-07	3YrCancerDerived_Inh	1.53E-07
86	ALL	288413.1	4011304	1.83E-07	3YrCancerDerived_Inh	1.83E-07
87	ALL	288797.8	4011332	3.83E-07	3YrCancerDerived_Inh	3.83E-07
88	ALL	289060.8	4011272	3.93E-07	3YrCancerDerived_Inh	3.93E-07
89	ALL	289242	4011456	4.09E-07	3YrCancerDerived_Inh	4.09E-07
90	ALL	288956.6	4011518	6.28E-07	3YrCancerDerived_Inh	6.28E-07
91	ALL	289217.2	4011731	3.74E-07	3YrCancerDerived_Inh	3.74E-07
92	ALL	289078.2	4011875	4.58E-07	3YrCancerDerived_Inh	4.58E-07
93	ALL	289187.4	4012089	2.33E-07	3YrCancerDerived_Inh	2.33E-07
94	ALL	288884.6	4012084	5.54E-07	3YrCancerDerived_Inh	5.54E-07
95	ALL	289063.3	4012322	1.39E-07	3YrCancerDerived_Inh	1.39E-07
96	ALL	289202.3	4012563	6.01E-08	3YrCancerDerived_Inh	6.01E-08
97	ALL	288988.9	4012545	8.91E-08	3YrCancerDerived_Inh	8.91E-08
98	ALL	289031.1	4012759	6.68E-08	3YrCancerDerived_Inh	6.68E-08
99	ALL	288976.5	4012935	6.85E-08	3YrCancerDerived_Inh	6.85E-08
100	ALL	288780.4	4013019	8.27E-08	3YrCancerDerived_Inh	8.27E-08

**HARP - Air Dispersion Modeling and Risk Tool v22118
**3/20/2025
**Exported Risk Results

REC	GRP	X	Y	SCENARIO	RESP	MAXHI
1	ALL	288124.1	4012390	NonCancerChronicDerived_Inh	0.0016536	0.0016536
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HARP Project Summary Report 3/3/2025 1:03:34 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: 24018 - QUIGLEY PARK
Project Output Directory: C:\HARP2\Projects\24018 - QUIGLEY PARK
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:1
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev		
Multi	Annual Ems	MaxHr Ems	MWAF			
	(lbs/yr)	(lbs/hr)				
AREA1	0	0	9901	DieselExhPM	1	22
0	1					

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL		
InhChronicREL	OralChronicREL	InhChronic8HRREL				
9901	DieselExhPM	1.1				5

AIR DISPERSION MODELING INFORMATION
Versions used in HARP. All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 18081
AERMAP: 18081
BPIPPRM: 04274
AERPLOT: 13329

METEOROLOGICAL INFORMATION
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:

LIST OF AIR DISPERSION FILES
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list
_____

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)
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AREA1CancerRisk.csv
AREA1CancerRiskSumByRec.csv
AREA1GLCList.csv
AREA1HRAInput.hra
AREA1NCAcuteRisk.csv
AREA1NCAcuteRiskSumByRec.csv
AREA1NCChronicRisk.csv
AREA1NCChronicRiskSumByRec.csv
AREA1Output.txt
AREA1PathwayRec.csv
AREA1PolDB.csv

Spatial averaging files (\sa\)
_____

Appendix C

Biological Evaluation

BIOLOGICAL EVALUATION
SANTA FE WEST SUBDIVISION PROJECT
TULARE COUNTY, CALIFORNIA

Prepared by

LIVE OAK ASSOCIATES, INC.
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February 11, 2025 PN 2937-01

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EXECUTIVE SUMMARY

Live Oak Associates, Inc. (LOA) investigated the biological resources of an approximately 34-acre parcel proposed for the development of a 174-lot residential subdivision in the City of Tulare, California and evaluated potential project-related impacts to such resources pursuant to the California Environmental Quality Act (CEQA). This site is located in the northern city limits at the intersection of North E Street and Zumwalt Avenue.

The project site was surveyed on January 2, 2025 for its biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law. At the time, the site consisted of an almond orchard and associated agricultural roads and infrastructure. The site supported several species of weedy grasses and forbs typical of a disturbed agricultural environment. The project site did not contain wildlife movement corridors, sensitive natural communities, designated critical habitat, or state or federally protected waters or wetlands.

Two special status birds known from the vicinity, the Swainson's hawk and loggerhead shrike, have some potential to nest on site or close enough to the site that they could experience significant project related impacts. Project related impacts are also considered potentially significant for other nesting birds and raptors. Impacts to Swainson's hawks, loggerhead shrike, and other nesting birds and raptors will be reduced to a less than significant level by either constructing the project outside of the nesting season or, if construction must occur during the nesting season, conducting preconstruction surveys and avoiding active nests.

The project will either have no impact or a less than significant impact, as defined by CEQA, on the following biotic resources: all 12 special plant species known to occur in the region; 15 special status animal species that would not likely use the site (i.e., the project site is outside their typical range or habitats of the site are not suitable for them); two special status animal species that may occasionally use habitats of the project site for foraging; jurisdictional waters; wildlife movement corridors; and sensitive natural communities and designated critical habitat. The project appears to be consistent with City of Tulare General Plan policies related to biological resources and is presumably not subject to any Habitat Conservation Plans or Natural Community Conservation Plans.

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1.0 INTRODUCTION

Live Oak Associates, Inc. (LOA) conducted an investigation of the biotic resources of an approximately 34-acre parcel ("project site" or "site") in Tulare, California that is proposed for the development of a 174-lot residential subdivision ("project"). This report describes the biotic habitats of the project site, evaluates the suitability of each habitat for special status plant and animal species, identifies potentially significant impacts to sensitive or protected biological resources from the project and proposes measures that, if implemented, would mitigate those impacts to a less than significant level as defined by the California Environmental Quality Act (CEQA).

1.1 PROJECT LOCATION

The project site is located at the intersection of North E Street and Zumwalt Avenue, approximately 0.8 miles west of State Route 99, within the northern boundary of the City of Tulare in Tulare County (Figure 1). The site can be found on the *Tulare* U.S. Geological Survey (USGS) 7.5-minute quadrangle, in Section 34 of Township 19 South, Range 24 East, Mount Diablo Base and Meridian (Figure 2).

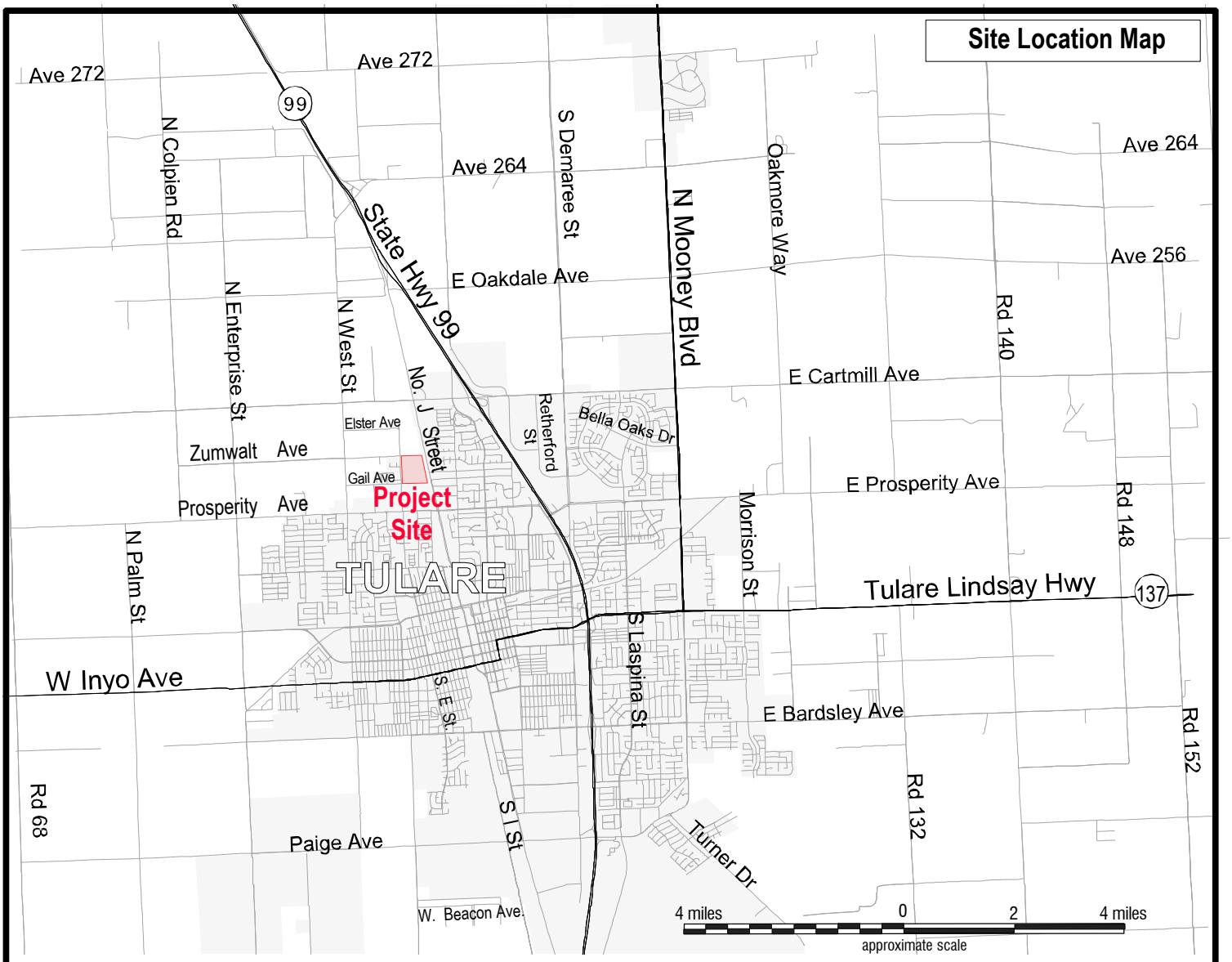
1.2 PROJECT DESCRIPTION

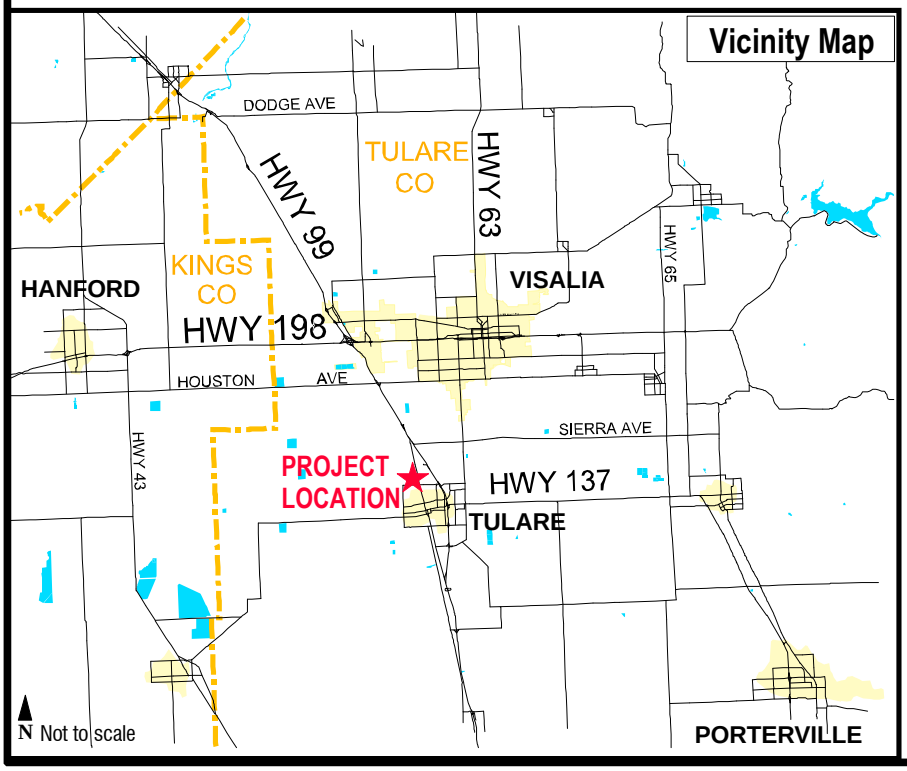
The project is the subdivision of the subject parcel into 174 residential lots, followed by site development with single-family residences, roads, and other residential infrastructure (Figure 3).

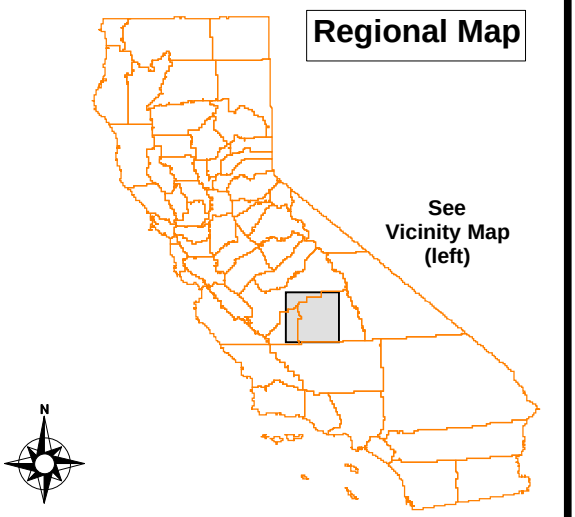
1.3 REPORT OBJECTIVES

This report summarizes a biological study conducted by LOA to facilitate environmental review pursuant to CEQA. As such, the report's objectives are to:

- Characterize the project site's existing biological resources, including biotic habitats, flora and fauna, soils, and aquatic resources
- Evaluate the project site's potential to support sensitive resources such as special status species, sensitive natural communities, and jurisdictional waters and wetlands
- Summarize all state and federal natural resource protection laws that may be relevant to project implementation





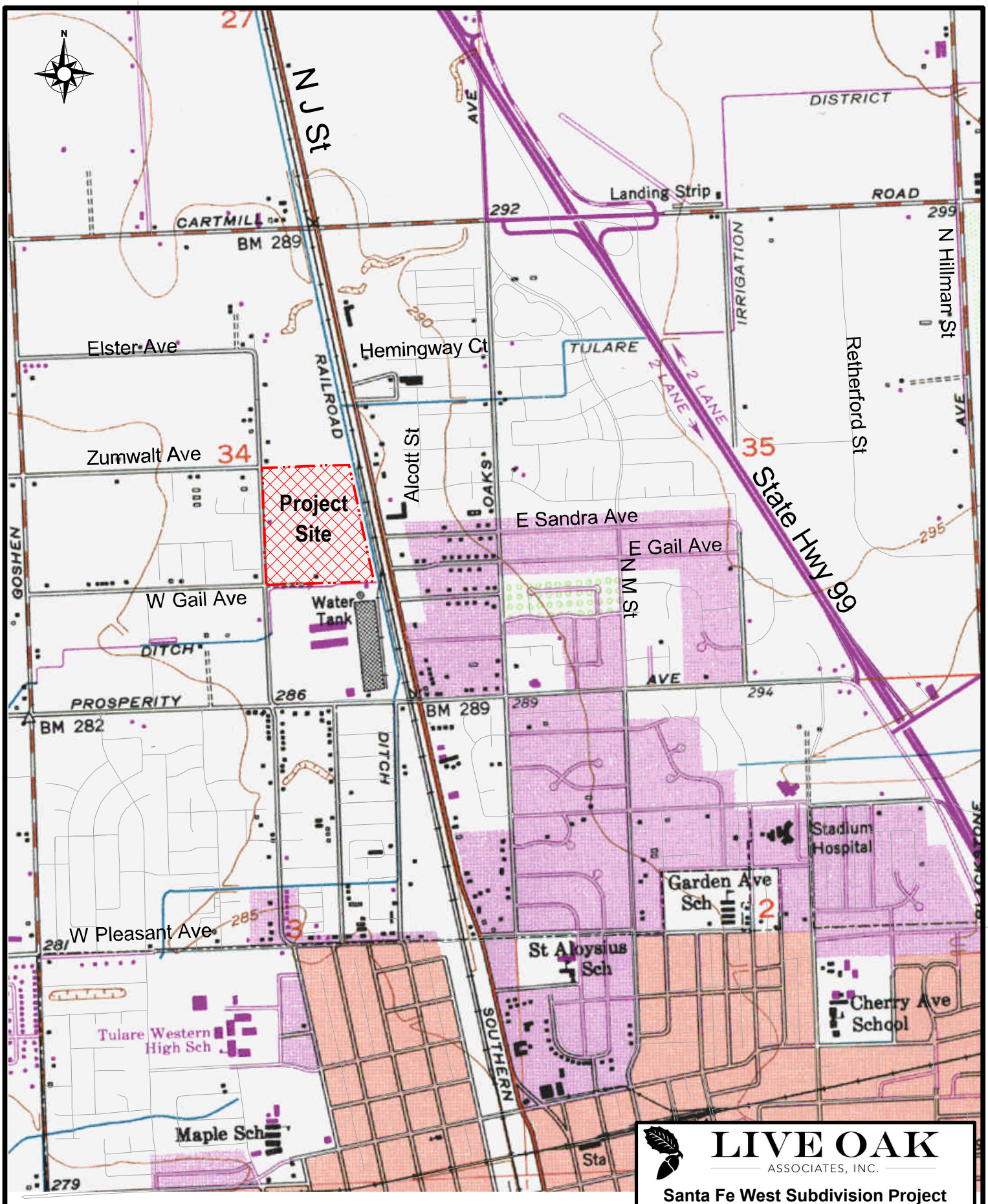


LIVE OAK ASSOCIATES, INC.

Santa Fe West Subdivision Project

Vicinity Map

Date	Project #	Figure #
2/11/2025	2937-01	1



1/2 mile 0 1/4 1/2 mile

approximate scale

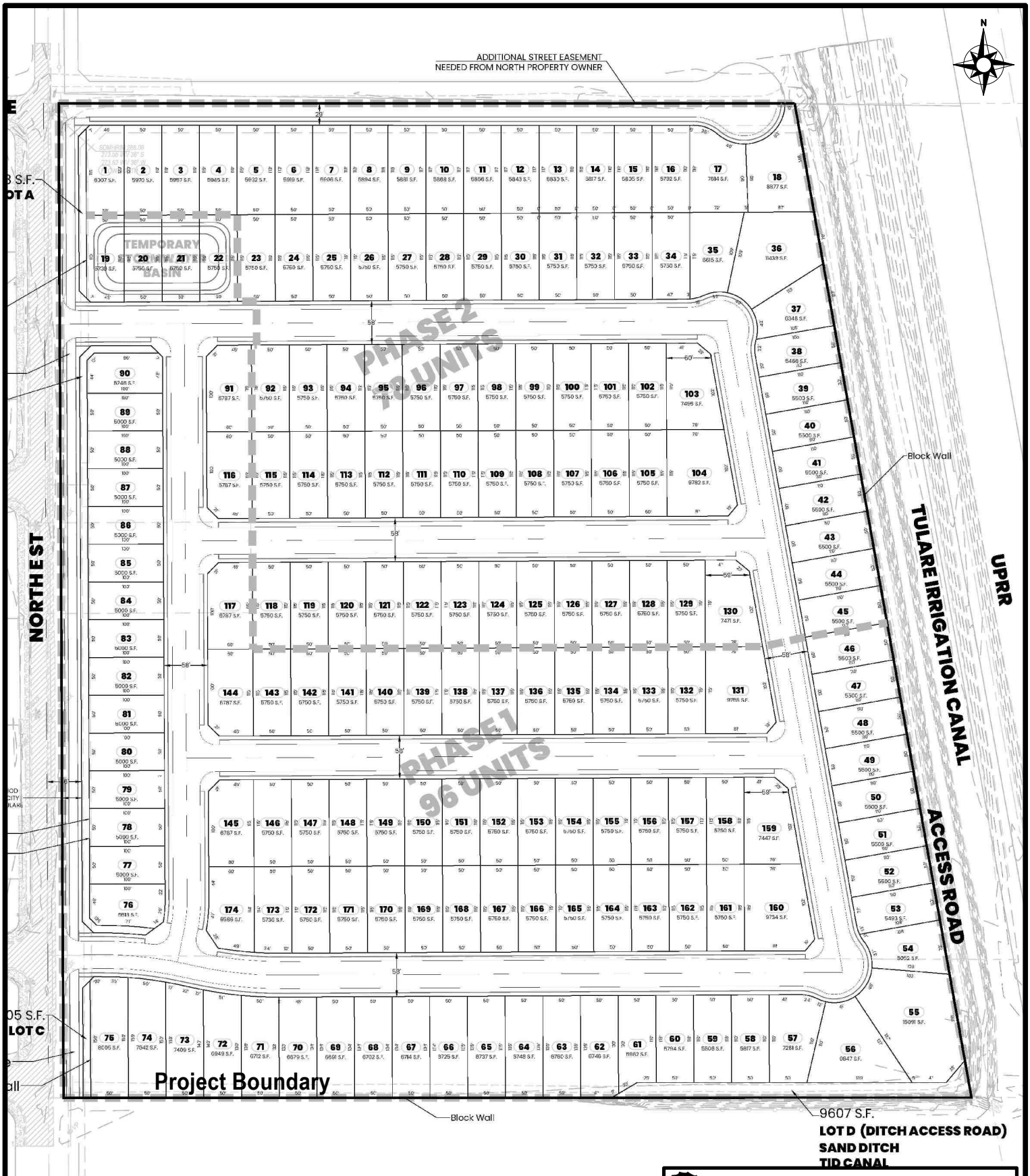
From USGS
Tulare 7.5' Quadrangle 1969

LIVE OAK
ASSOCIATES, INC.

Santa Fe West Subdivision Project

U.S.G.S. Quadrangle

Date	Project #	Figure #
2/11/2025	**2937-01**	**2**



400 feet 0 200' 400 feet

approximate scale

Site Plan Courtesy of
4Creeks Engineering

LIVE OAK
ASSOCIATES, INC.

Santa Fe West Subdivision Project

Site Plan

Date	Project #	Figure #
2/11/2025	2937-01	3

- Identify and discuss potential project-related impacts to biological resources within the context of CEQA and other state and federal laws
- Identify avoidance and mitigation measures that would reduce the magnitude of project-related impacts in a manner consistent with CEQA and species-specific guidelines

1.4 STUDY METHODOLOGY

The analysis of impacts, as discussed in Section 3.0 of this report, is based on the known and potential biotic resources of the project site (discussed in Section 2.0). Sources of information used in the preparation of this analysis include: (1) the *California Natural Diversity Data Base* (CDFW 2025); (2) the *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2025); (3) manuals, reports, and references related to plants and animals of the San Joaquin Valley; and (4) other available planning documents and biological studies from the general project vicinity. A field survey of the project site was conducted on January 2, 2025, by LOA biologist Natalie Neff. The survey entailed conducting a meandering walk through the project site while identifying the principal land uses of the project site and the constituent plants and animals of each land use. The field survey conducted for this study was sufficient to assess the significance of possible biological impacts associated with the development plans for the project site.

2.0 EXISTING CONDITIONS

2.1 REGIONAL SETTING

The project site is located in the eastern Tulare Basin, which lies in the southeast portion of the San Joaquin Valley. The San Joaquin Valley is a large, nearly flat alluvial plain bordered by the Sierra Nevada to the east, the Tehachapi Mountains to the south, the California coast ranges to the west, and the Sacramento-San Joaquin Delta to the north.

The San Joaquin Valley experiences a Mediterranean climate with warm, dry summers followed by cool, moist winters. Summer temperatures commonly exceed 100 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely exceed 70 degrees Fahrenheit with daytime highs often below 60 degrees Fahrenheit. Annual precipitation in the project vicinity varies considerably from year to year, but averages approximately 10.3 inches, almost all of which falls between the months of October and March in the form of rain (NOAA 2021).

The project vicinity is characterized by agricultural areas and urban development associated with the City of Tulare. Areas immediately surrounding the project site consist of agricultural lands to the north, a railroad and commercial/residential areas to the east, an industrial center to the south, and an elementary school, park, and residential area to the southwest and west. Several aquatic features lie within the immediate vicinity of the project site. These include Railroad Ditch, which borders the eastern edge of the project site, Sand Ditch, which borders the southern edge of the project site, a consistently inundated, fenced detention basin approximately 550 feet northeast of the project site, a consistently inundated, fenced treatment pond approximately 150 feet south of the project site, an intermittently inundated detention basin approximately 430 feet south of the project site within a fenced industrial park, and an intermittently inundated, fenced detention basin approximately 530 feet west of the project site.

The Elk Bayou is the principal drainage in the general vicinity and runs east to west. The Elk Bayou is a 13-mile-long distributary channel of the Lower Kaweah River and eventually flows back into the Tule River (ECORP Consulting, Inc. 2007). At the closest point, Elk Bayou lies approximately 5.5 miles south of the project site. Another natural drainage, Packwood Creek, is a distributary of the Kaweah River and lies approximately 3.1 miles north of the project site.

2.2 PROJECT SITE

The project site consists of an almond (*Prunus amygdalus*) orchard with associated agricultural dirt roads along the boundaries. Analysis of aerial imagery indicates that the site has been used for agricultural purposes since at least 1956 (Historic Aerials 2025).

The site is relatively flat with an elevation of approximately 285 feet National Geodetic Vertical Datum (NGVD) (see Figure 2). It contains a single soil type, Colpien loam, 0 to 2 percent slopes. Colpien loam is not considered hydric, meaning it does not have the propensity to pond water and support hydrophytic (water-loving) vegetation. The soils of the project site have been substantially altered due to decades of agricultural use of the site and, as a result, no longer maintain their native soil characteristics and have no particular significance to biological resources of the site.

An aerial view of the site is presented in Figure 4. A list of vascular plants identified on the site is presented in Appendix A. A list of terrestrial vertebrates using or potentially using the project site is presented in Appendix B. Representative photos of the site are presented in Appendix C.

2.3 BIOTIC HABITATS

At the time of LOA's field survey, the project site supported a single land use: orchard. Aside from the almond trees, the site was vegetated with common weedy grasses and forbs such as annual bluegrass (*Poa annua*), cheeseweed (*Malva parviflora*), white stemmed filaree (*Erodium moschatum*), and chickweed (*Stellaria media*).

The site's orchard may be used by a number of native wildlife species that have adapted to make use of agricultural lands. A variety of birds could nest in the orchard including northern mockingbirds (*Mimus polyglottos*), mourning doves (*Zenaida macroura*), Brewer's blackbirds (*Euphagus cyanocephalus*), and American robins (*Turdus migratorius*), among others. Ground nesting birds like killdeer (*Charadrius vociferus*) are highly disturbance tolerant and could nest in the dirt roads that surround the orchard.

Aerial Photo courtesy of Google Earth, 3/2024

LIVE OAK
ASSOCIATES, INC.

Santa Fe West Subdivision Project

Aerial Photograph

Date	Project #	Figure #
2/11/2025	**2937-01**	**4**

The site does not provide suitable nesting habitat for raptors, though it does provide some foraging habitat for hawks such as Cooper's hawk (*Acciputer cooperii*), which sometimes forages in orchards. Avian species seen foraging in the site's orchard during the survey include the California scrub jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), yellow-rumped warbler (*Setophaga coronata*), and black phoebe (*Sayornis nigricans*).

Amphibians such as the Pacific chorus frog (*Pseudacris regilla*) and western toad (*Anaxyrus boreas*) could potentially breed in the nearby aquatic habitats and subsequently disperse across the site. However, both of the ditches and three of the four ponding basins within the vicinity of the project site are intermittently inundated and may not always support amphibian reproduction. The continually inundated ponding basin that lies 150 feet south of the project site may be able to support amphibian reproduction; however, aerial imagery shows a lack of vegetation in and near the ponding basin, creating a sterile and unsuitable habitat for many amphibians. Furthermore, all ponding basins are separated from the project site by features that may function as barriers to amphibians to some degree, including fencing, streets, a railroad, and general urban development. Due to the reasons listed above, amphibian numbers in the orchard are expected to be relatively low.

The cover that weedy species provide within the almond orchard rows and the stacked woodpiles along the edges of the orchard provide some habitat for reptile species. Reptiles such as gophersnake (*Pituophis melanoleucus*), common kingsnake (*Lampropeltis getulus*), and western fence lizard (*Sceloporus occidentalis*) may forage within the orchard for invertebrates or, in the case of the snakes, small vertebrates associated with agriculture, such as deer mice (*Peromyscus maniculatus*).

Small mammal use of the site may include the Botta's pocket gopher (*Thomomys bottae*), deer mouse, desert cottontail (*Sylvilagus audubonii*), and California ground squirrel (*Otospermophilus beecheyi*). At the time of LOA's survey, burrowing rodent activity was minimal. Less than five Botta's pocket gopher burrows were found and California ground squirrel burrows were found in only two locations.

Common mammalian predators such as coyotes (*Canis latrans*), raccoons (*Procyon lotor*), and striped skunks (*Mephitis mephitis*) may forage or pass through the site. Bat species are known to

forage in orchards, though roosting habitat is absent. The almond trees of the orchard were not mature enough to support roosting habitat in the form of cavities or crevices nor was the canopy dense enough to provide roosting habitat for the foliage roosting hoary bat (*Lasiurus cinereus*).

2.4 SPECIAL STATUS PLANTS AND ANIMALS

Many species of plants and animals within the state of California have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.0, state and federal laws have provided California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as "candidates" for such listing. Still others have been designated as "species of special concern" by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists (i.e., California Rare Plant Ranks, or CRPR) of native plants considered rare, threatened, or endangered (CNPS 2025). Collectively, these plants and animals are referred to as "special status species."

The California Natural Diversity Data Base (CNDDB) was queried for special status plant and animal occurrences in the nine USGS 7.5-minute quadrangles containing and surrounding the project site (*Goshen, Visalia, Exeter, Paige, Tulare, Cairns Corner, Taylor Weir, Tipton,* and *Woodville*). A number of special status plants and animals were returned in the query and are summarized below in Table 1. Sources of information for this table included *California's Wildlife, Volumes I, II, and III* (Zeiner et. al 1988-1990), *California Natural Diversity Data Base* (CDFW 2025), *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al 2012), the *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2025), *Calflora.org,* and *eBird.org*.

TABLE 1. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

PLANTS

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	Occurrence on the Project Site
California Jewel-flower (*Caulanthus californicus*)	FE, CE, CRPR 1B.1	Occurs in chenopod scrub, pinyon and juniper woodland, and sandy valley and foothill grassland; blooms February–May; elevation 250-3,300 ft.	**Absent.** Although there is a historical occurrence of this species within the city limits of Tulare, the occurrence is from an unknown year in the 1900s and is presumed extirpated (CDFW 2025). Decades of agricultural disturbance would have eliminated any habitat that may have once been present on site or in the immediate vicinity.
San Joaquin Adobe Sunburst (*Pseudobahia peirsonii*)	FT, CE, CRPR 1B.1	Occurs in foothill grasslands in heavy clay soils of the Porterville and Centerville series, between 300 and 2,625 ft. in elevation. Blooms March-April.	**Absent.** Although there is a historical occurrence of this species within the city limits of Tulare, the occurrence is from 1897 and is presumed extirpated (CDFW 2025). Furthermore, the site lacks suitable soils for this species and decades of agricultural disturbance have made the landscape unsuitable for the persistence of this species.

CNPS-listed Species

Heartscale (*Atriplex cordulata var. cordulata*)	CRPR 1B.2	Occurs on saline or alkaline soils in chenopod scrub, meadows, seeps, and grasslands; blooms April-October; elevations below 1,230 ft.	**Absent.** Decades of agricultural disturbance would have eliminated any habitat that may have once been present on site or in the immediate vicinity.
Earlimart Orache (*Atriplex cordulata var. erecticaulis*)	CRPR 1B.2	Occurs in valley and foothill grasslands between 130 and 330 ft. in elevation; blooms August-September.	**Absent.** Decades of agricultural disturbance would have eliminated any habitat that may have once been present on site or in the immediate vicinity.
Brittlescale (*Atriplex depressa*)	CRPR 1B.2	Occurs in chenopod scrub, valley and foothill grassland, meadows and seeps, playas, and vernal pools. It is rarely found in riparian or marsh habitats. Blooms April-October; elevations below 1,050 ft.	**Absent.** Decades of agricultural disturbance would have eliminated any habitat that may have once been present on site or in the immediate vicinity.
Lesser Saltscale (*Atriplex minuscula*)	CRPR 1B.1	Occurs in cismontane woodland and valley and foothill grasslands of the San Joaquin Valley; alkaline/sandy soils; blooms May-October; elevation 50-660 ft.	**Absent.** Decades of agricultural disturbance would have eliminated any habitat that may have once been present on site or in the immediate vicinity.
Subtle Orache (*Atriplex subtilis*)	CRPR 1B.2	Occurs in alkaline vernal pools; blooms July-Oct.; elevations below 400 ft.	**Absent.** Vernal pools are absent from the project site and vicinity.
Recurved Larkspur (*Delphinium recurvatum*)	CRPR 1B.2	Occurs in alkaline soils of cismontane woodland and valley and foothill grasslands in elevations 100 – 2,000 feet. Blooms March-June.	**Absent.** The site lacks suitable soils for this species, and decades of agricultural disturbance would have eliminated any habitat that may have once been present on site or in the immediate vicinity.

TABLE 1. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

PLANTS (cont'd)

CNPS-listed Species

Species	Status	Habitat	Occurrence on the Project Site
Spiny-sepaled Button Celery (*Eryngium spinosepalum*)	CRPR 1B.2	Found in vernal pools, swales and valley and foothill grasslands at the eastern edge of the San Joaquin Valley and in the Tulare Basin; elevation between 330 and 840 ft. Blooms April to May.	**Absent.** The site is situated below this species' elevational range. Moreover, decades of agricultural disturbance would have eliminated any habitat that may have once been present on site or in the immediate vicinity.
California Satintail (*Imperata brevifolia*)	CRPR 2B.1	Occurs in coastal scrub, chaparral, riparian areas, Mojavean desert scrub, and alkali meadows and seeps at elevations below 1640 feet. Blooms September- May.	**Absent.** Suitable habitat for this species is absent from the project site and immediate vicinity.
Alkali-Sink Goldfields (*Lasthenia chrysantha*)	CRPR 1B.1	Occurs in valley grassland, alkali sink, wetland riparian areas less than 328 ft. in elevation in the southern Sacramento Valley and San Joaquin Valley. Blooms February – June.	**Absent.** Although there is a historical (1897) occurrence of this species within the city limits of Tulare, decades of agricultural disturbance would have eliminated any habitat that may have once been present on site or in the immediate vicinity.
California Alkali Grass (*Puccinellia simplex*)	CRPR 1B.2	Occurs in alkali sinks and flats within grassland and chenopod scrub habitats of the Central Valley, San Francisco Bay area and western Mojave Desert; elevations below 3,000 feet. Blooms March-May.	**Absent.** Suitable habitat for this species is absent from the project site and immediate vicinity.

TABLE 1. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	Occurrence on the Project Site
Valley Elderberry Longhorn Beetle (VELB) (*Desmocerus californicus dimorphus*)	FT	Lives in mature elderberry shrubs of California's Central Valley and Sierra foothills.	**Absent.** VELB distribution is no longer thought to include the San Joaquin Valley south of Merced County. Furthermore, blue elderberry shrubs required by this species are absent from the site.
Crotch Bumble Bee (*Bombus crotchii*)	CC	Once common in the Central Valley, this species is now absent from most of it, particularly in the central portion of its historic range. Where present, it is associated with open grassland and scrub habitats. Constructs nests underground in animal burrows. Overwintering sites are likely in soft soils or in debris or leaf litter. Its food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	**Absent.** The project site is situated in a matrix of intensive agricultural, residential, and municipal uses incompatible with this species' ecology. Moreover, the Crotch bumble bee is thought to be nearly extirpated from the valley floor (CDFW 2019). The closest CNDDB occurrence is approximately 6.7 miles northeast of the project site from 1961 (CDFW 2025). The nearest Bumble Bee Watch occurrence is more than 7 miles from project boundaries.
Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)	FT	Primarily found in vernal pools of California's Central Valley.	**Absent**. Suitable habitat in the form of vernal pools is absent from the site and immediately surrounding lands.
Western Spadefoot (*Spea hammondii*)	FPT, CSC	Occurs in grasslands of San Joaquin Valley, where it breeds in vernal pools or other seasonal wetlands and aestivates in underground refugia such as rodent burrows. Baumberger et al. (2019) recorded a maximum distance of around 860 feet between breeding and aestivation sites.	**Absent.** Suitable habitat for the western spadefoot is absent from the project site, and the site is situated within a matrix of urban and intensive agricultural lands within which this species would not have been able to persist. The closest extant CNDDB occurrence is from 2010, approximately 8.2 miles southeast from the project site (CDFW 2025).
Blunt-Nosed Leopard Lizard (*Gambelia sila*)	FE, CE, FP	Occurs in semiarid grasslands, alkali flats, and washes. Avoids densely vegetated areas. Inhabits the San Joaquin Valley and adjacent valleys and foothills north to southern Merced County.	**Absent.** Agricultural and residential use has eliminated any potential habitat from the project site and surrounding area. There are no CNDDB occurrences within 10 miles of the project site (CDFW 2025).
Northwestern Pond Turtle (*Actinemys marmorata*)	FPT, CSC	Found in ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires partially submerged rocks or logs for basking sites. Nesting takes place in open areas, on a variety of soil types, and up to ¼ mile away from water. Overwintering and summertime aestivation includes use of upland habitat, generally with leaf litter or other loose substrate for burying themselves.	**Absent.** The project site consists entirely of an orchard that lacks aquatic features and offers no upland habitat for this species. While there are ditches and basins within a distance from the site that pond turtles would be capable of migrating, all are located in a highly modified urban environment unlikely to support this species. Moreover, the four nearby basins are fenced, limiting any potential turtle immigration and emigration. There are no nearby iNaturalist records of this species and the only CNDDB occurrence in the general vicinity is from 1897, approximately 6.75 miles northeast of the project site (CDFW 2025)

TABLE 1. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS (cont'd)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	Occurrence on the Project Site
Swainson's Hawk (*Buteo swainsoni*)	CT	This breeding-season migrant to California nests in stands with few trees in riparian areas and juniper-sage flats, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	**Unlikely.** The project site does not contain nesting or foraging habitat for the Swainson's hawk, and this species is not expected to occur on site. However, Swainson's hawks do have the potential to nest in the immediate project vicinity. They are well-documented in the area; there are 31 CNDDB nesting occurrences within 10 miles of the site, with the closest located 2 miles southwest of the project site (CDFW 2025), and over 60 eBird sightings in the same area (eBird 2025).
Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*)	FT, CE	Occurs in valley foothill and desert riparian habitats in scattered locations in California. Requires extensive gallery riparian forests for nesting.	**Absent.** This species has been extirpated from the vicinity. Although a CNDDB occurrence was mapped approximately 6.5 miles northeast of the project site, the occurrence is presumed extirpated and is historical in nature, documented in 1919 (CDFW 2025). Furthermore, suitable habitat is absent from the project site.
Burrowing Owl (*Athene cunicularia*)	CC, CSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	**Absent.** The site consists entirely of unsuitable orchard land and is situated in a matrix of urban and intensive agricultural uses generally incompatible with burrowing owl ecology. Although burrowing owls are known from the greater Tulare area, with several detections logged at and near the wastewater treatment plant 2-3 miles to the south (eBird 2025), this species would not occur on or adjacent to the project site itself.
Tricolored Blackbird (*Agelaius tricolor*)	CT, CSC	Breeds colonially near fresh water in dense bulrush, cattails, or thickets of willows or shrubs, and increasingly in wheat or triticale fields. Forages in grassland and cropland areas.	**Absent.** Suitable habitat for this species is absent from the project site and immediately adjacent lands. Tricolored blackbirds are known from the general vicinity; there is one CNDDB occurrence documented within 10 miles of the project site (CDFW 2025) and over 15 sightings within 10 miles of the project site on eBird (eBird 2025), including two within two miles of the site. However, this species has no appreciable potential to occur on the site itself.

TABLE 1. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS (cont'd)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	Occurrence on the Project Site
Tipton Kangaroo Rat (*Dipodomys nitratoides nitratoides*)	FE, CE	Inhabits valley saltbrush scrub, valley sink scrub, and grassland habitats located from the Valley floor to 300 ft. in elevation.	**Absent.** Suitable habitat is absent from the project site, and the site is situated in a matrix of intensive agricultural and urban uses within which this species would not have been able to persist. There are no CNDDB occurrences within 10 miles of the site (CDFW 2025).
San Joaquin Kit Fox (*Vulpes macrotis mutica*)	FE, CT	Frequents desert alkali scrub and annual grasslands and may forage in adjacent agricultural habitats. Utilizes enlarged ground squirrel burrows as denning habitat. May become adapted to urban environments, as has occurred in the cities of Bakersfield, Taft, and Coalinga.	**Unlikely.** This species was historically known from the project vicinity. There are twelve CNDDB occurrences within 10 miles of the project site, with the closest mapped generally to Tulare in 1992 (CDFW 2025); the remaining eleven were recorded in the 1970s. The project site is situated in a matrix of residential and municipal developments, orchards, and other land uses generally incompatible with kit fox ecology, and the site itself consists of an orchard, which does not constitute kit fox habitat. These factors, combined with the lack of modern sightings, suggest a very low probably of kit fox occurrence on site.

State Species of Special Concern

Northern California Legless Lizard (*Anniella pulchra*)	CSC	Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Requires moist soils.	**Absent.** Suitable habitat is absent from the project site and the surrounding lands. The only CNDDB occurrence within 10 miles of the project site is a historical occurrence from 1934, mapped generally to the City of Visalia, approximately 7 miles northeast of the project site (CDFW 2025).
Mountain Plover (*Charadrius montanus*)	CSC	Over 90% of the North American population winters in California before moving to breeding grounds outside of California in the spring. Forages on flat ground including agricultural fields and grazed pastures.	**Absent.** Orchards provide unsuitable habitat for this species and there are no known occurrences within 10 miles of the project site (CDFW 2025, eBird 2025).
Loggerhead Shrike (*Lanius ludovicianus*)	CSC	Found in a variety of arid habitats Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**Possible.** This species is known from the vicinity. There are five eBird sightings within 5 miles of the project site (eBird 2025). Loggerhead shrikes could feasibly nest in the site's orchard trees.
Pallid Bat (*Antrozous pallidus*)	CSC	Found in grasslands, chaparral, and woodlands, where it feeds on ground- and vegetation-dwelling arthropods, and occasionally takes insects in flight. Prefers to roost in rock crevices, but many also use tree cavities, caves, bridges, and buildings.	**Possible.** Although the project site provides unsuitable roosting habitat for this species, the orchard may be utilized for foraging.

TABLE 1. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS (cont'd)

State Species of Special Concern

Species	Status	Habitat	Occurrence on the Project Site
Western Mastiff Bat (*Eumops perotis californicus*)	CSC	Frequents open, semi-arid to arid habitats, including conifer, and deciduous woodlands, coastal scrub, grasslands, palm oasis, chaparral and urban. Roosts in cliff faces, high buildings, and tunnels.	**Possible.** Although the project site provides unsuitable roosting habitat for this species, this species may occasionally forage over the site. A CNDDB occurrence of this species was documented in 2002 approximately 5 miles north of the project site (CDFW 2025).
American Badger (*Taxidea taxus*)	CSC	This species inhabits open and dry sections of grasslands, shrub, and forest habitats with friable soil.	**Absent.** Orchards provides unsuitable habitat for this species and there are no CNDDB or iNaturalist occurrences within 10 miles of the project site.

***OCCURRENCE DESIGNATIONS AND STATUS CODES**

Present: Species observed on the site at time of field surveys or during recent past.
Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.
Possible: Species not observed on the site, but could occur there from time to time.
Unlikely: Species not observed on the site, and would not be expected to occur there except, perhaps, as a transient
Absent: Species not observed on the site and precluded from occurring because habitat requirements are not met.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPT	Federally Proposed Threatened	CSC	California Species of Special Concern
FC	Federal Candidate	CFP	California Fully Protected
		CC	California Candidate for Listing

CRPR CODES

1A	Plants Presumed Extinct in California	2B	Plants Rare, Threatened, or Endangered in California, but more common elsewhere
1B	Plants Rare, Threatened, or Endangered in California and elsewhere		

2.5 JURISDICTIONAL WATERS

Jurisdictional waters are those rivers, creeks, drainages, lakes, ponds, reservoirs, and wetlands that are subject to the authority of the USACE, CDFW, and/or the RWQCB. In general, the USACE regulates navigable waters, tributaries to navigable waters, and wetlands with a continuous surface connection to these waters, where wetlands are defined by the presence of hydric soils, hydrophytic vegetation, and wetland hydrology. All waters under USACE jurisdiction are also regulated by the RWQCB as waters of the State. Additionally, the RWQCB

asserts jurisdiction over certain isolated features disclaimed by the USACE. The CDFW has jurisdiction over waters that have a defined bed and bank. The regulation of jurisdictional waters is discussed in more detail in Section 3.2.8.

Aquatic features, including any potentially jurisdictional waters or wetlands, are absent from the project site.

2.6 DESIGNATED CRITICAL HABITAT

As will be discussed further in Section 3.0, the USFWS often designates areas of "critical habitat" when it lists species as threatened or endangered. Critical habitat is a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

Designated critical habitat is absent from the project site and immediately surrounding lands.

2.7 CALIFORNIA SENSITIVE NATURAL COMMUNITIES

California Sensitive Natural Communities are natural communities designated by CDFW as those that are of limited distribution, distinguished by significant biological diversity, home to special status plant and animal species, of importance in maintaining water quality or sustaining flows, etc.

No habitats designated as a Sensitive Natural Community by CDFW or any other sensitive habitats are present on the site or surrounding lands.

2.8 WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors are routes that animals regularly and predictably follow during seasonal migration, dispersal from native ranges, daily travel within home ranges, and inter-population movements. Movement corridors in California are typically associated with valleys, rivers and creeks supporting riparian vegetation, and ridgelines.

The project site does not contain or adjoin any geographic features that could function as a wildlife movement corridor.

3.0 RELEVANT GOALS, POLICIES, AND LAWS

3.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

In California, any project carried out or approved by a public agency that will result in a direct or reasonably foreseeable indirect physical change in the environment must comply with CEQA. The purpose of CEQA is to ensure that a project's potential impacts on the environment are evaluated and methods for avoiding or reducing these impacts are considered before the project is allowed to move forward. A secondary aim of CEQA is to provide justification to the public for the approval of any projects involving significant impacts on the environment.

According to Section 15382 of the CEQA Guidelines, a 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 interest." Although the lead agency may set its own CEQA significance thresholds, project impacts to biological resources are generally considered to be significant if they would meet any of the following criteria established in Appendix G of the CEQA Guidelines:

- 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 CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS.
- 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.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Furthermore, CEQA Guidelines Section 15065(a) requires the lead agency to make "mandatory findings of significance" if there is substantial evidence that a project may:

- 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, or substantially reduce the number or restrict the range of an endangered, rare or threatened species.
- Achieve short-term environmental goals to the detriment of long-term environmental goals.
- Produce environmental effects that are individually limited but cumulatively considerable, meaning that the incremental effects of the project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects.

3.2 OTHER RELEVANT LAWS AND POLICIES

3.2.1 General Plan Policies of the City of Tulare

In compliance with CEQA, the lead agency must consider conformance with applicable goals and policies of the City of Tulare General Plan. The City of Tulare General Plan was released in October 2014 and is valid through 2035. Implementation of goals in the general plan is accomplished via a set of policies specific to each goal.

Relevant biological resource goals of the City of Tulare General Plan can be found in section 4: Conservation and Open Space Element and are as follows:

- Design and plan new development to reduce impacts to natural and cultural resources;
- Ensure a reliable, adequate water supply while protecting and enhancing the environment;
- Protect Elk Bayou;
- Protect rare and endangered species;
- Protect and enhance natural areas;
- Encourage the planting of native trees, shrubs, and grasslands;
- Preserve mature Valley Oaks and their habitats;
- Preserve and manage wetlands

3.2.2 Threatened and Endangered Species

In California, imperiled plants and animals may be afforded special legal protections under the California Endangered Species Act (CESA) and/or Federal Endangered Species Act (FESA). Species may be listed as "threatened" or "endangered" under one or both Acts, and/or as "rare" under CESA. Under both Acts, "endangered" means a species is in danger of extinction throughout all or a significant portion of its range, and "threatened" means a species is likely to become endangered within the foreseeable future. Under CESA, "rare" means a species may become endangered if their present environment worsens. Both Acts prohibit "take" of listed species, defined under CESA as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" (California Fish and Game Code, Section 86), and more broadly defined under FESA to include "harm" (16 USC, Section 1532(19), 50 CFR, Section 17.3). The USFWS commonly interprets "take" to include the loss of habitat utilized by a listed species.

When state and federally listed species have the potential to be impacted by a project, the USFWS and CDFW must be included in the CEQA process. These agencies review the environmental document to determine the adequacy of its treatment of endangered species issues and to make project-specific recommendations for the protection of listed species. Projects that may result in the "take" of listed species must generally enter into consultation with the USFWS and/or CDFW pursuant to FESA and CESA, respectively. In some cases, incidental take authorization(s) from these agencies may be required before the project can be implemented.

3.2.3 California Fully Protected Species

The classification of certain animal species as "fully protected" was the State of California's initial effort in the 1960s, prior to the passage of the California Endangered Species Act (CESA), to identify and provide additional protection to those species that were rare or faced possible extinction. Following CESA enactment in 1970, many fully protected species were also listed as California threatened or endangered. The list of fully protected species are identified, and their protections stipulated, in California Fish and Game Code Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and fish (5515). Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take, except in conjunction with necessary scientific research and protection of livestock.

3.2.4 Migratory Birds

The Federal Migratory Bird Treaty Act (FMBTA: 16 USC 703-712) prohibits killing, possessing, or trading in any bird species covered in one of four international conventions to which the United States is a party, except in accordance with regulations prescribed by the Secretary of the Interior. The name of the act is misleading, as it actually covers almost all birds native to the United States, even those that are non-migratory. The FMBTA encompasses whole birds, parts of birds, and bird nests and eggs.

Native birds are also protected under California state law. The California Fish and Game Code makes it unlawful to take or possess any non-game bird covered by the FMBTA (Section 3513), as well as any other native non-game bird (Section 3800), even if incidental to lawful activities.

3.2.5 Birds of Prey

Birds of prey are also protected in California under provisions of the State Fish and Game Code, Section 3503.5, 1992), which states that it is "unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

3.2.6 Nesting Birds

In California, protection is afforded to the nests and eggs of all birds. California Fish and Game Code (Section 3503) states that it is "unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Breeding-season disturbance that causes nest abandonment and/or loss of reproductive effort is considered a form of "take" by the CDFW.

3.2.7 Habitat Conservation Plans and Natural Community Conservation Plans

Section 10 of the federal Endangered Species Act establishes a process by which non-federal projects can obtain authorization to incidentally take listed species, provided take is minimized and thoroughly mitigated. A Habitat Conservation Plan (HCP), developed by the project applicant in collaboration with the USFWS and/or NMFS, ensures that such minimization and mitigation will occur, and is a prerequisite to the issuance of a federal incidental take permit. Similarly, a Natural Community Conservation Plan (NCCP), developed by the project applicant in collaboration with CDFW, provides for the conservation of biodiversity within a project area, and permits limited incidental take of state-listed species.

3.2.8 Wetlands and Other Jurisdictional Waters

Section 404 of the federal Clean Water Act (CWA) regulates the discharge of dredged or fill material into "navigable waters" (33 U.S.C. §1344), defined in the CWA as "the waters of the United States, including the territorial seas" (33 U.S.C. §1362(7)). The CWA does not supply a definition for waters of the U.S., and that has been the subject of considerable debate since the CWA's passage in 1972. A variety of regulatory definitions have been promulgated by the two federal agencies responsible for implementing the CWA, the Environmental Protection Agency (EPA) and USACE. These definitions have been interpreted, and in some cases, invalidated, by federal courts.

Waters of the U.S. are presently defined by the EPA and USACE's joint 2023 Revised Definition of 'Waters of the U.S.' Rule (2023 WOTUS Rule), issued in January 2023 and amended in August 2023. Generally speaking, waters of the U.S. include:

- Waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide
- The territorial seas
- Interstate waters
- Impoundments of waters otherwise defined as waters of the United States under the definition

- Tributaries to other waters of the U.S. that are relatively permanent, standing or continuously flowing bodies of water
- Wetlands adjacent to other waters of the U.S. that have a continuous surface connection to those waters

The 2023 WOTUS Rule also defines a number of exclusions from the definition of waters of the U.S., many of which are longstanding exclusions from earlier regulatory regimes. These generally include:

- Waste treatment systems
- Prior converted cropland
- Ditches excavated wholly in and draining only dry land that do not carry a relatively permanent flow of water
- Certain artificial features, e.g. irrigation basins, swimming pools, borrow pits, and artificially irrigated areas
- Swales and erosional features characterized by low volume, infrequent, or short duration flow

All activities that involve the discharge of dredge or fill material into waters of the U.S. are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values.

Under the Porter-Cologne Water Quality Control Act of 1969, the State Water Resources Control Board (SWRCB) has regulatory authority to protect the water quality of all surface water and groundwater in the State of California ("waters of the State"). Nine RWQCBs oversee water quality at the local and regional level. The RWQCB for a given region regulates discharges of fill or pollutants into waters of the State through the issuance of various permits and orders. Discharges into waters of the State that are also waters of the U.S. require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining a Section 404 Clean Water Act permit. Discharges into waters of the State that are not also waters of the U.S. require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB.

The SWRCB and RWQCBs also administer the federal National Pollution Discharge Elimination System (NPDES) program, which is concerned with the discharge of stormwater and other

pollutants into water bodies. Projects that disturb one or more acres of soil must obtain coverage under the SWRCB's current NPDES Construction Stormwater General Permit. A prerequisite for permit coverage is the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Other types of pollutant discharges into waters of the U.S., such as wastewater, may require coverage under a different NPDES general permit, and in some cases an individual permit.

CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1601 and 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a Notification of Lake or Streambed Alteration. If CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. Such an agreement typically stipulates that certain measures will be implemented to protect the habitat values of the lake or drainage in question.

4.0 IMPACTS AND MITIGATIONS

The project considered in this evaluation of impacts to biological resources is the conversion of 34 acres of orchard to a residential subdivision. This analysis assumes that all areas of the site will experience permanent impacts from proposed development.

4.1 POTENTIALLY SIGNIFICANT PROJECT IMPACTS

4.1.1 Potential Project Impacts to Nesting Raptors and Migratory Birds Including Loggerhead Shrike and Swainson's Hawk

Potential Impacts. The site's orchard trees have the potential to be used for nesting by a variety of migratory birds, possibly including the loggerhead shrike (*Lanius ludovicianus*), a California Species of Concern. Larger trees in the immediate project vicinity have the potential to support nesting raptors, possibly including the Swainson's hawk (*Buteo swainsoni*), a California Threatened species. Nearly all birds are protected by state and federal law. If project construction takes place during the nesting season, birds nesting on site could be injured or killed by construction activities, while birds nesting near the site could be disturbed such that they would abandon their nests. Construction-related mortality of nesting birds and disturbance leading to nest abandonment would violate state and federal laws and constitute a significant impact of the project.

Swainson's hawks and loggerhead shrikes are not expected to be adversely affected by project-related loss of habitat. In fact, Swainson's hawks are not expected to utilize the site at all due to the absence of nesting and foraging habitat on the site. Orchards are not important habitat for loggerhead shrikes and many square miles of similar and higher quality habitat exist in the region. For these reasons, project-related loss of habitat for the Swainson's hawk and loggerhead shrike are considered less than significant under CEQA.

Mitigation. The following measures will be implemented for the protection of nesting birds and raptors including the Swainson's hawk and loggerhead shrike.

> ***Mitigation Measure 4.1.1a (Construction Timing).*** If feasible, future construction activities will take place entirely outside of the avian nesting season, defined as February 1 to August 31.

***Mitigation Measure 4.1.1b (Preconstruction Surveys*).** If construction must occur between February 1 and August 31, a qualified biologist will conduct surveys for active bird nests within 7 days prior to the start of work during this period. The survey area will encompass the site and surrounding lands within ¼ mile for nesting Swainson's hawks, 500 feet for other nesting raptors, and 250 feet for nesting birds.

***Mitigation Measure 4.1.1c (Avoidance of Active Nests*).** Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. This buffer will be identified on the ground with flagging or fencing and will be maintained until the biologist has determined that the young have fledged and are capable of foraging independently.

Implementation of the above measures will reduce potential project impacts to nesting birds and raptors, including loggerhead shrike and Swainson's hawk, to a less than significant level under CEQA and facilitate compliance with state and federal laws protecting these species.

4.2 LESS THAN SIGNIFICANT PROJECT IMPACTS

4.2.1 Potential Project Impacts to Special Status Plants

Potential Impacts. Twelve (12) special status plant species have been documented in the project vicinity (see Table 1). All 12 species are considered absent from the project site due to an absence of suitable habitat and/or soils, the site's being situated outside of the species' distribution, or a combination thereof. Therefore, impacts to special status plants are considered less than significant under CEQA.

Mitigation. Mitigation measures are not warranted.

4.2.2 Potential Project Impacts to Special Status Animal Species Absent from or Unlikely to Occur Within the Project Site

Potential Impacts. Of the 18 special status animal species that potentially occur in the general vicinity of the site, 15 are considered absent from or unlikely to occur within the project site due to the absence of suitable habitat and/or the project site being situated outside of the species' known distribution (see Table 2). These comprise the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), Crotch bumblebee (*Bombus crotchii*), vernal pool fairy shrimp (*Branchinecta lynchi*), western spadefoot (*Spea hammondii*), blunt-nosed leopard lizard (*Gambelia sila*), northwestern pond turtle (*Actinemys marmorata*), western yellow-billed cuckoo

(*Coccyzus americanus occidentalis*), burrowing owl (*Athene cunicularia*), tricolored blackbird (*Agelaius tricolor*), Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), San Joaquin kit fox (*Vulpes macrotis mutica*), northern California legless lizard (*Anniella pulchra*), mountain plover (*Charadrius montanus*), and American badger (*Taxidea taxus*). The project is expected to have an insignificant effect or no effect on these species through construction mortality/disturbance or loss of habitat because there is little or no likelihood that they are present. The Swainson's hawk is also not expected to utilize the site but could be impacted by the project if nesting near the project site at the time of construction (see Section 4.1.1).

Mitigation. Mitigation is not warranted.

4.2.3 Project Impacts to Special Status Animal Species that Would Use the Site for Non-Sensitive Activities Only

Potential Impacts. Two special status animal species, the pallid bat (*Antrozous pallidus*) and western mastiff bat (*Eumops perotis* ssp. *californicus*), have the potential to pass through or forage on the site from time to time but would not roost on or near enough to the site that they could be vulnerable to construction-related disturbance or reproductive failure (see Table 1). Individuals of these species are unlikely to be injured or killed by construction activities because they are highly mobile while foraging and would be expected to simply avoid active work areas.

The project would not adversely affect these species through loss of foraging habitat. The site does not offer unique foraging habitat for the pallid bat and western mastiff bat, nor is it likely to represent an important part of any individual foraging range, given its disturbed nature and urban setting. Similar and higher quality foraging habitats are abundant in the project vicinity and elsewhere in the region.

Mitigation. Mitigation is not warranted.

4.2.4 Potential Project Impacts to Jurisdictional Waters

Potential Impacts. As discussed, the project site does not contain aquatic features, including any potentially jurisdictional waters or wetlands. No impacts to jurisdictional waters are anticipated.

Mitigation. Mitigation is not warranted.

4.2.5 Potential Project Impacts to Wildlife Movement Corridors

Potential Impacts. The project site does not contain or adjoin any wildlife movement corridors, and will have no impact on such resources.

Mitigation. Mitigation is not warranted.

4.2.6 Project Impacts to Sensitive Natural Communities and Designated Critical Habitat

No Impact. Sensitive Natural Communities and Designated Critical Habitat are absent from the project site and surrounding lands. Project development would have no impact on Sensitive Natural Communities or Designated Critical Habitat.

Mitigation. No mitigation is warranted.

4.2.7 Consistency with Local Policies and Ordinances

Potential Impacts. The project appears consistent with the City of Tulare General Plan policies related to biological resources.

Mitigation. Mitigation measures are not warranted.

4.2.8 Consistency with Habitat Conservation Plans and Natural Community Conservation Plans

Potential Impacts. There are no known HCPs or NCCPs that would apply to the project.

Mitigation. Mitigation measures are not warranted.

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APPENDIX A: VASCULAR PLANTS OF THE PROJECT SITE

APPENDIX A
VASCULAR PLANTS OF THE PROJECT SITE

The plant species listed below were observed on the project site during LOA's January 2, 2025 surveys. The U.S. Fish and Wildlife Service wetland indicator status of each plant, if available, has been shown following its common name.

OBL - Obligate
FACW - Facultative Wetland
FAC - Facultative
FACU - Facultative Upland
UPL - Upland

ARECACEAE – Palm Family		
Washingtonia spp.	Fan Palm	FACW
ASTERACEAE – Sunflower Family		
Lactuca serriola	Prickly Lettuce	FACU
Senecio vulgaris	Common Groundsel	FACU
CARYOPHYLLACEAE – Carnation Family		
Stellaria media	Chickweed	FACU
FAGACEAE – Oak Family		
Quercus lobata	Valley Oak	FACU
GERANIACEAE – Geranium Family		
Erodium moschatum	White Stemmed Filaree	
MALVACEAE – Mallow Family		
Malva parviflora	Cheeseweed	UPL
POACEAE – Grass Family		
Poa annua	Annual Bluegrass	FAC
ROSACEAE – Rose Family		
Prunus amygdalus	Almond	UPL

APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES POTENTIALLY OCCURRING ON THE PROJECT SITE

APPENDIX B
TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE PROJECT SITE

The species listed below are those that may be expected to routinely and predictably use or pass through the project site during some or all of the year. An asterisk denotes a species observed on or immediately adjacent to the site during surveys conducted by LOA on January 2, 2025.

CLASS: AMPHIBIA
ORDER: ANURA (Frogs and Toads)
FAMILY: BUFONIDAE (True Toads)
Western Toad (*Bufo boreas*)
FAMILY: HYLIDAE (Treefrogs and Relatives)
Pacific Tree Frog (*Pseudacris regilla*)

CLASS: REPTILIA
ORDER: SQUAMATA (Lizards and Snakes)
SUBORDER: SAURIA (Lizards)
FAMILY: PHRYNOSOMATIDAE
Western Fence Lizard (*Sceloporus occidentalis*)
SUBORDER: SERPENTES (Snakes)
FAMILY: COLUBRIDAE (Colubrids)
Pacific Gopher Snake (*Pituophis catenifer catenifer*)
Common Kingsnake (*Lampropeltis californiae*)
FAMILY: VIPERIDAE (Vipers)
Western Rattlesnake (*Crotalus viridis*)

CLASS: AVES
ORDER: CICONIIFORMES (Herons, Storks, Ibises and Relatives)
FAMILY: CATHARTIDAE (New World Vultures)
Turkey Vulture (*Cathartes aura*)
ORDER: FALCONIFORMES (Vultures, Hawks, and Falcons)
FAMILY: ACCIPITRIDAE (Hawks, Old World Vultures, and Harriers)
Cooper's Hawk (*Accipiter cooperi*)
Red-tailed Hawk (*Buteo jamaicensis*)
ORDER: COLUMBIFORMES (Pigeons and Doves)
FAMILY: COLUMBIDAE (Pigeons and Doves)
Rock Pigeon (*Columba livia*)
*Mourning Dove (*Zenaida macroura*)
Eurasian Collared Dove (*Streptopelia decaocto*)
ORDER: STRIGIFORMES (Owls)
FAMILY: TYTONIDAE (Barn Owls)
Barn Owl (*Tyto alba*)
ORDER: APODIFORMES (Swifts and Hummingbirds)
FAMILY: TROCHILIDAE (Hummingbirds)
*Anna's Hummingbird (*Calypte anna*)
ORDER: PASSERIFORMES (Perching Birds)

FAMILY: TYRANNIDAE (Tyrant Flycatchers)
*Black Phoebe (*Sayornis nigricans*)
Western Kingbird (*Tyrannus verticalis*)
FAMILY: CORVIDAE (Jays, Magpies, and Crows)
*California Scrub Jay (*Aphelocoma coerulescens*)
*American Crow (*Corvus brachyrhynchos*)
Common Raven (*Corvus corax*)
FAMILY: HIRUNDINIDAE (Swallows)
Cliff Swallow (*Petrochelidon pyrrhonota*)
Barn Swallow (*Hirundo rustica*)
FAMILY: AEGITHALIDAE (Bushtits)
Bushtit (*Psaltriparus minimus*)
FAMILY: TURDIDAE (Thrushes)
Western Bluebird (*Sialia mexicana*)
American Robin (*Turdus migratorius*)
FAMILY: MIMIDAE (Mockingbirds and Thrashers)
Northern Mockingbird (*Mimus polyglottos*)
FAMILY: PARULIDAE (Wood Warblers and Relatives)
*Yellow-rumped Warbler (*Dendroica coronata*)
FAMILY: STURNIDAE (Starlings and Allies)
European Starling (*Sturnus vulgaris*)
FAMILY: EMBERIZIDAE (Sparrows)
*White-crowned Sparrow (*Zonotrichia leucophrys*)
FAMILY: ICTERIDAE (Blackbirds, Orioles and Allies)
Red-winged Blackbird (*Agelaius phoeniceus*)
Great-tailed Grackle (*Quiscalus mexicanus*)
Brewer's Blackbird (*Euphagus cyanocephalus*)
Brown-headed Cowbird (*Molothrus ater*)
Bullock's Oriole (*Icterus bullock*)
FAMILY: FRINGILLIDAE (Finches)
*House Finch (*Carpodacus mexicanus*)
Lesser Goldfinch (*Carduelis psaltria*)
FAMILY: PASSERIDAE (Old World Sparrows)
House Sparrow (*Passer domesticus*)

CLASS: MAMMALIA
ORDER: DIDELPHIMORPHIA (Marsupials)
FAMILY: DIDELPHIDAE (Opossums)
Virginia Opossum (*Didelphis virginiana*)
ORDER: CHIROPTERA (Bats)
FAMILY: VESPERTILIONIDAE (Vespertilionid Bats)
Yuma Myotis (*Myotis yumanensis*)
California Myotis (*Myotis californicus*)
Western Pipistrelle (*Pipistrellus hesperus*)
Big Brown Bat (*Eptesicus fuscus*)
FAMILY: MOLOSSIDAE (Free-tailed Bat)
Brazilian Free-tailed Bat (*Tadarida brasiliensis*)

ORDER: LAGOMORPHA (Rabbits, Hares, and Pikas)

FAMILY: LEPORIDAE (Rabbits and Hares)

Audubon's Cottontail (*Sylvilagus audubonii*)

ORDER: RODENTIA (Rodents)

FAMILY: SCIURIDAE (Squirrels, Chipmunks, and Marmots)

*California Ground Squirrel (*Otospermophilus beecheyi*)

FAMILY: GEOMYIDAE (Pocket Gophers)

*Botta's Pocket Gopher (*Thomomys bottae*)

FAMILY: MURIDAE (Mice, Rats and Voles)

Western Harvest Mouse (*Reithrodontomys megalotis*)

Deer Mouse (*Peromyscus maniculatus*)

Norway Rat (*Rattus norvegicus*)

House Mouse (*Mus musculus*)

California Vole (*Microtus californicus*)

FAMILY: HETEROMYIDAE (Kangaroo Rats)

Heermann's Kangaroo Rat (*Dipodomys heermanni*)

ORDER: CARNIVORA (Carnivores)

FAMILY: CANIDAE (Foxes, Wolves, and Relatives)

Red Fox (*Vulpes vulpes*)

Coyote (*Canis latrans*)

*Domestic Dog (*Canis familiaris*)

FAMILY: PROCYONIDAE (Raccoons and Relatives)

Raccoon (*Procyon lotor*)

FAMILY: MUSTELIDAE (Weasels and Relatives)

Striped Skunk (*Mephitis mephitis*)

FAMILY: FELIDAE (Cats)

*Feral Cat (*Felis catus*)

APPENDIX C:
SELECT PHOTOGRAPHS OF THE PROJECT SITE

Photo 1: Representative photo of almond orchard

Photo 2: Facing south, western edge of project site.

Photo 3: Facing east, northern edge of project site (right side).

Photo 4: Facing north, east edge of project site with Railroad Ditch and railroad tracks on the right side.

Photo 5: Facing west, southern edge of project site. Sand Ditch and industrial area on the left side.

Photo 6: Facing east, southern edge of project site featuring ground squirrel burrows (bottom left) and small valley oak tree.

Photo 7: Facing east, southern border of project site. Small valley oak tree and industrial center on right.

Photo 8: The only ground squirrel burrows found in the orchard.

Appendix D

Cultural Resources Technical Memorandum

TECHNICAL MEMORANDUM

Date: February 11, 2025

To: Brad Perrine, Senior Environmental Planner, 4Creeks, Inc.

From: Consuelo Sauls, M.A., RPA, Archaeologist, Taylored Archaeology

Subject: **Cultural Resources Technical Memorandum Desktop Review for the Santa Fe West Subdivision Project, City of Tulare, County of Tulare, California**

Introduction

Taylored Archaeology has conducted a records search for the Santa Fe West Subdivision Project (Project). The proposed Project consists of a single-family residential development located in the City of Tulare, Tulare County, California. The objective of the records search was to identify whether any prehistoric or historical cultural resources had been recorded previously within the Project boundary and/or within a 0.5-mile radius buffer of the Project area.

The Project is currently undergoing environmental evaluation under the California Environmental Quality Act (CEQA) with the City of Tulare serving as lead agency.

Project Description and Location

The proposed Project consists of approximately 34.14 acres of rural land proposed for development of 174 single-family residential lots and will include paved streets with sidewalks, streetlights, utilities, and landscaping. Local streets within the development will connect to North E Street to the west.

The Project site is in the northwestern portion of the City of Tulare, west of Highway 99 (Figure 1). Specifically, the Project is located at the northeast corner of West Gail Avenue and North E Street and is surrounded by residential development to the west, and a canal, railroad, and residential development to the east, and commercial to the south. The Project site consists of Tulare County Assessor's Parcel Numbers 164-100-008 and 164-100-009 within Township 19 South, Range 24 East, in the southeast quarter of Section 34 as depicted on the 1950 (photorevised 1969) United States Geological Survey (USGS) 7.5-minute series Tulare, California topographic quadrangle map (Figure 2). See Attachment A for Figures 1 – 3.

Methods

Taylored Archaeology researched potential cultural resources within the Project vicinity by requesting a cultural resources records search from the Southern San Joaquin Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS), at California State University, Bakersfield and reviewing records in relationship to the Project area. The records search covered the Project area and all land within a 0.5-mile radius of the Project boundary. The search also included a review of the following: the Archaeological Resources Directory, the National Register of Historic Places, the California Registry of Historic Resources, the California Points of Historical Interest, the California Historical Landmarks, the

California State Historic Resources Inventory, and a review of cultural resources reports on file with the SSJVIC. Taylored Archaeology additionally sent a request for a Sacred Lands File (SLF) search to the Native American Heritage Commission (NAHC) to know whether the Project area is located on, or in the vicinity of, tribal lands or sacred sites.

Archival research included a review of available historical maps and aerial photographs for the Project site and vicinity. The archival research focused on documenting modifications to the physical setting and identifying any potential natural or man-made features (e.g., stream courses, canals, ditches, roads, habitation markers, buildings and vegetation).

Records Search Results

The SSJVIC provided the results of the cultural resources records search (File No. 25-013) for the Project on January 21, 2025 (Attachment B). The records search review indicated three cultural resources studies have been conducted previously within the Project area. None of these studies specifically involved a portion of the Project area (Table 1).

Table 1
Previous Cultural Resource Reports within the Project Area

Report Number	Author(s)	Date	Report Title	Study
TU-00041	William Self	1995	Class I Overview, Santa Fe Pacific Pipeline Partners, L.P., Proposed Concord to Colton Pipeline Project	Archaeological Literature Review
TU-00102	Brian Hatoff, Barb Voss, Sharon Waechter, and Stephen Wee Vance Bente	1995	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project	Archaeological field survey
TU-01190	Annie R. Mitchell	1957	Jim Savage and the Tulareño Indians	Book; No survey of Project area

The records search results identified four cultural resources studies (Table 2) conducted within a 0.5-mile radius of the Project boundary. These include two phase I archaeological surveys, one phase I archaeological and historical survey, and one archaeological monitoring report. Two of the four prior cultural studies, TU-00102 and TU-01324, were linear pedestrian surveys adjacent to the east of the Project site.

Table 2
Previous Cultural Resource Reports within a 0.5-mile radius of the Project Area

Report Number	Author(s)	Date	Report Title	Study
TU-00102	Brian Wickstrom and Emily Anderson	1997	Cultural Resource Survey for the Selma to Bakersfield Fiberoptic Line, Southern San Joaquin Valley, California	Archaeological field survey

Report Number	Author(s)	Date	Report Title	Study
TU-01324	Cindy Arrington, Bryon Bass, Joan Brown, Chris Corey and Kevin Hunt	2006	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California	Archaeological Monitoring and Findings Report
TU-01646	Lorna Billat	2005	Property Assessment for Tulare Almond Orchard / CV2947 Wireless Facility, 2478 North E Street, Tulare, Tulare County, California	Archaeological Field Survey
TU-01677	Kathryn Haley	2011	Historical Resources Compliance Report for the Cartmill Avenue Interchange Project, City of Tulare, Tulare County, California	Architectural/Historical Field Survey and Evaluation
	Traci O'Brien	2011	Archaeological Survey Report for the Cartmill Avenue Interchange Project, City of Tulare, Tulare County, California	Archaeological Field Survey

According to the records search results, no known cultural resources were previously recorded within the Project boundary. Three cultural resources were previously recorded within a 0.5-mile radius of the Project area (Table 3). P-54-002182, is a segment of Railroad Ditch adjacent to the east and south of the Project boundary and was not evaluated for listing in the National Register of Historic Places (NRHP) nor the California Register of Historic Resources (CRHR). P-54-004626 is the Southern Pacific Railroad adjacent to the east of the Project boundary, with the closest recorded segment of this resource approximately 18 miles southeast of the Project. This segment of the resource was evaluated and found eligible for listing in the NRHP. The third resource, P-54-005211, is a segment of the Liberty Ditch which was found not eligible for listing in the CRHR. None of these resources overlap the Project site. Overall, the Project will not impact these identified resources.

Table 3
Previous Recorded Cultural Resource within a 0.5-mile radius of the Project Area

Resource Number	Age Association	Resource Type	Resource Description	NRHP/CRHR Eligibility Status	Distance from Project Boundary
P-54-002182	Historic	Structure	A segment of Railroad Ditch	Not evaluated	Adjacent to south and east
P-54-004626	Historic	Structure	Remnants of segment of the Southern Pacific Railroad	Eligible for NRHP (Criterion A)	Adjacent to east, closest recorded segment approximately 18 miles southeast
P-54-005211	Historic	Structure	Liberty Ditch- canal segment	Not eligible for CRHR	0.70 miles northeast

Sacred Lands File Search Results

Taylored Archaeology submitted a SLF search request for the Project site to the NAHC on January 8, 2025. The NAHC's email response (Appendix C) was received on January 9, 2025, indicating that the SLF results were negative.

Archival Research

Available historical topographic maps were examined dated as early as 1925 and aerial photographs as early as 1946. Topographic maps ranging from 1925 to 1969 showed a building in the southern portion within the Project boundary (USGS). Aerial photographs of the Project site dating from 1946 to 2022 demonstrate that the land within the Project boundary has been used for agriculture for nearly a century (USAAA 1946, Google Earth Pro 2025, NETROnline 2025). The house in the southern portion was demolished sometime before 1969 according to the 1969 aerial photograph. By 1984 all buildings on the Project site appear to have been demolished or removed (NETROnline 2025). Aerial images show that the Project site continued to be used for agriculture until 2024 (Google Earth Pro 2025).

Conclusion and Recommendations

A review of the SSJVIC record search results indicate no prior surveys were conducted within, nor cultural resources recorded within, the Project boundary. Three historical resources were recorded within a 0.5-mile radius of the Project boundary. Based upon the Project description, none of these resources will be impacted by the proposed Project. The results of the SLF search conducted by the NAHC were negative for the presence of cultural resources within the Project site. Archival research of available historical topographic maps and aerial photographs of the Project site identified the site as being utilized for agricultural purposes for the past 100 plus years. While rural residences and outbuildings were previously present on the Project site, all buildings within the Project boundary appear to have been demolished and removed since at least 1984.

While past agricultural activities may have potentially destroyed or obscured ground surface evidence of archaeological resources within the Project boundary, intact archaeological resources related to prior occupation of the area may potentially exist below the ground surface.

Taylored Archaeology therefore recommends the following:

- In the event of accidental discovery of unidentified archaeological remains during development or ground-moving activities in the Project area, all work should be halted in the immediate vicinity (within a 100-foot radius) until a qualified archaeologist can identify the discovery and assess its significance.
- If human remains are uncovered during construction, the Tulare County Coroner is to be notified to investigate the remains and arrange proper treatment and disposition. If the remains are identified on the basis of archaeological context, age, cultural associations, or biological traits to be those of a Native American, California Health and Safety Code 7050.5 and PRC 5097.98 require that the coroner notify the Native American Heritage Commission within 24 hours of discovery. The Native American Heritage Commission will then identify the Most Likely Descendent who will

be afforded an opportunity to make recommendations regarding the treatment and disposition of the remains.

Taylored Archaeology appreciates the opportunity to assist you on this project. If you have any questions concerning this letter, please do not hesitate to contact Consuelo Sauls at csaulsarchaeo@gmail.com.

Sincerely,

Consuelo Sauls

Consuelo Sauls, M.A., RPA 41591505
Professional Archaeologist

Attachment A: Project Maps
Attachment B: Records Search Results Letter
Attachment C: Sacred Lands File Results

References

Google Earth Pro.
2025 Google Earth Software, Google, Inc.

NETROnline
2025 "Historic Aerials". https://www.historicaerials.com/ Accessed January 29, 2025.

United States Geological Survey (USGS)
1925 *Tulare, California, Quadrangle Map*. 7.5-minute series. U.S. Geological Survey, Denver, Colorado.

1950 *Tulare, California, Quadrangle Map*. 7.5-minute series. U.S. Geological Survey, Denver, Colorado.

1969 *Tulare, California, Quadrangle Map, 1950, photo revised 1969*. 7.5-minute series. U.S. Geological Survey, Denver, Colorado.

2012 *Tulare, California, Quadrangle Map*. 7.5-minute series. U.S. Geological Survey, Denver, Colorado.

2015 *Tulare, California, Quadrangle Map*. 7.5-minute series. U.S. Geological Survey, Denver, Colorado.

2018 *Tulare, California, Quadrangle Map*. 7.5-minute series. U.S. Geological Survey, Denver, Colorado.

2021 *Tulare, California, Quadrangle Map*. 7.5-minute series. U.S. Geological Survey, Denver, Colorado.

U.S. Agricultural Adjustment Administration (USAAA)
1946 Fresno County, California Aerial Survey No. 1946 F-K 14-32, http://digitized.library.fresnostate.edu/cdm/singleitem/collection/aerial/id/16455, accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, accessed January 29, 2025.

ATTACHMENT A

Project Maps

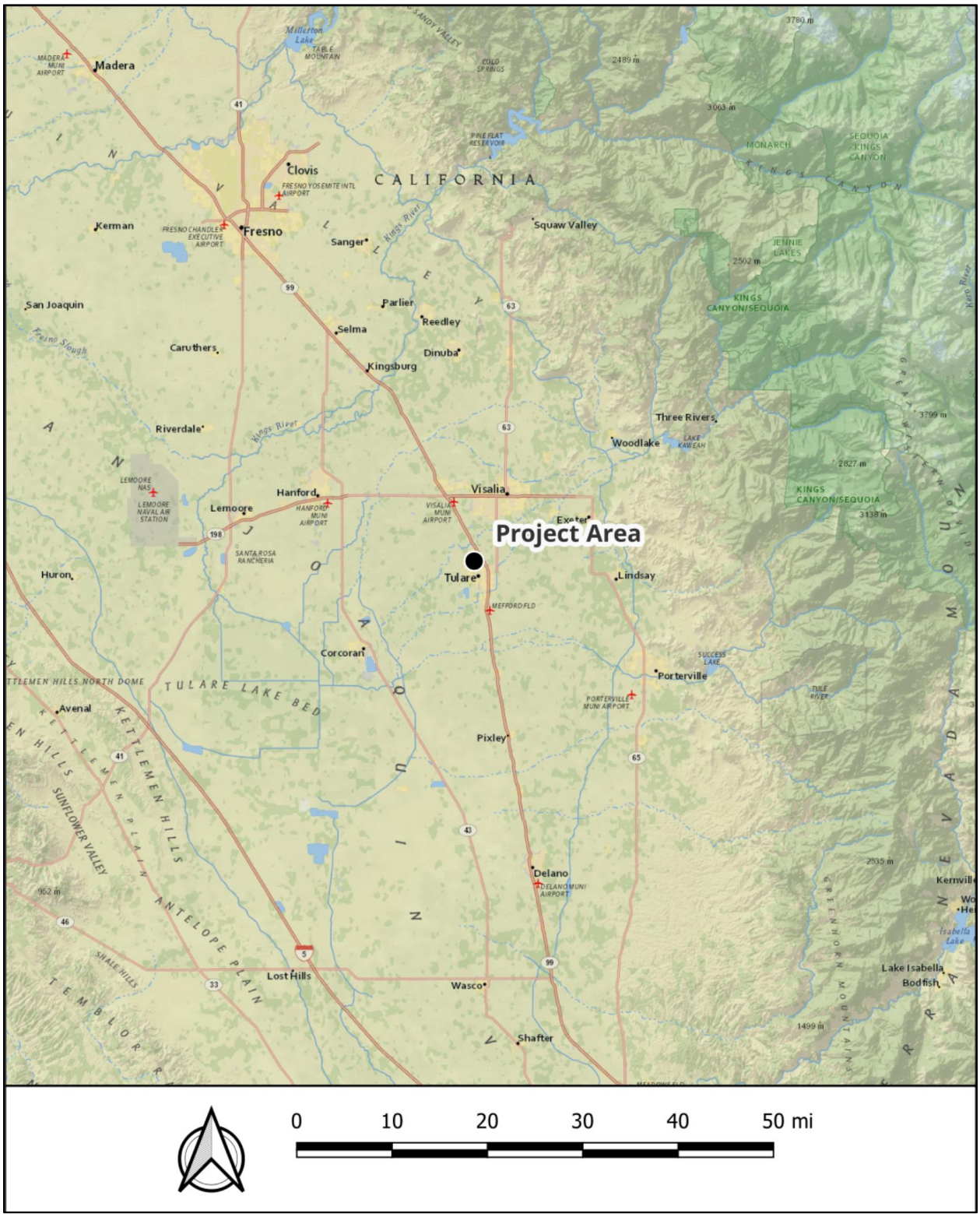

Figure 1 Project vicinity in Tulare, California

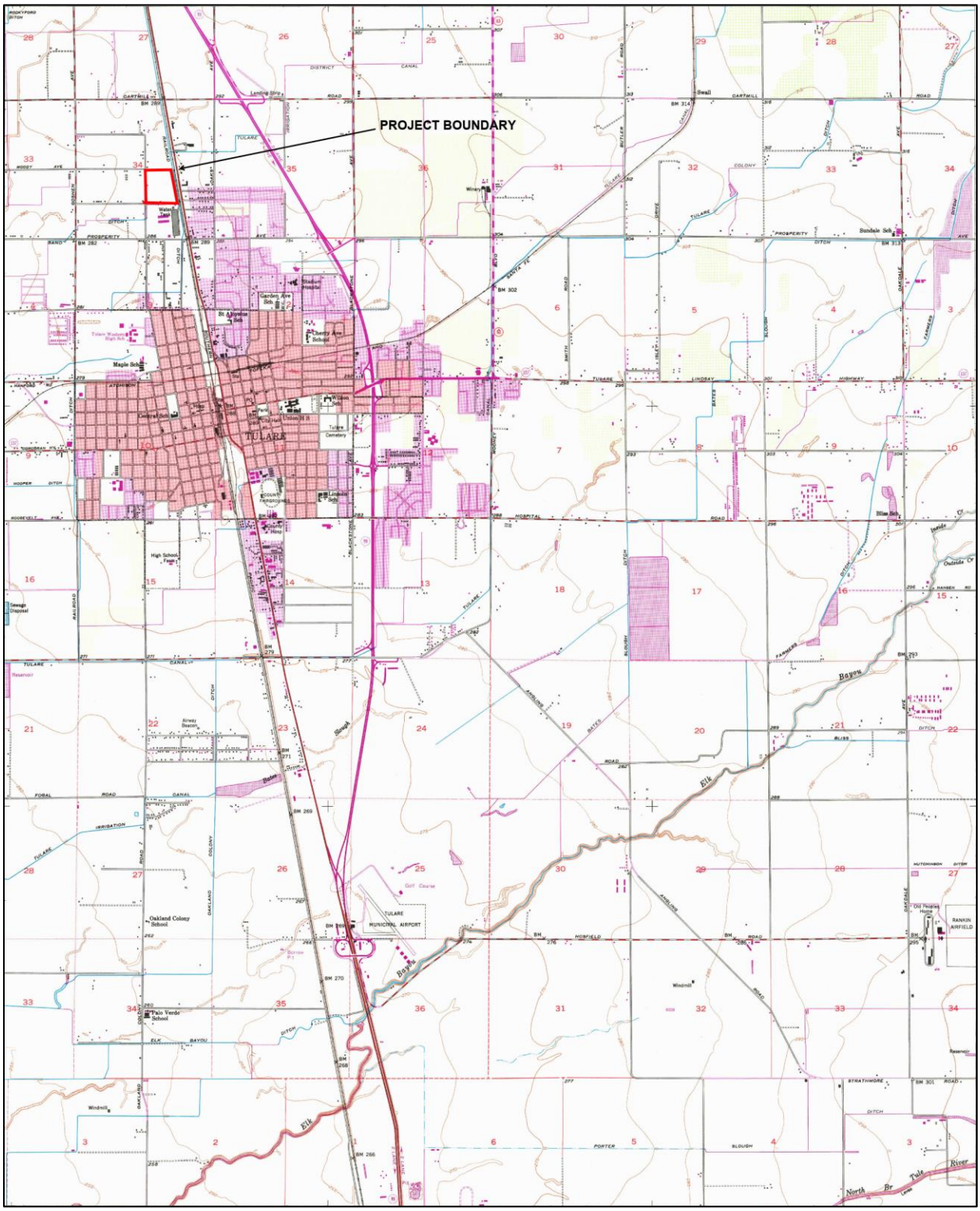

Figure 2 Project location on the USGS Tulare, CA 7.5-minute quadrangle

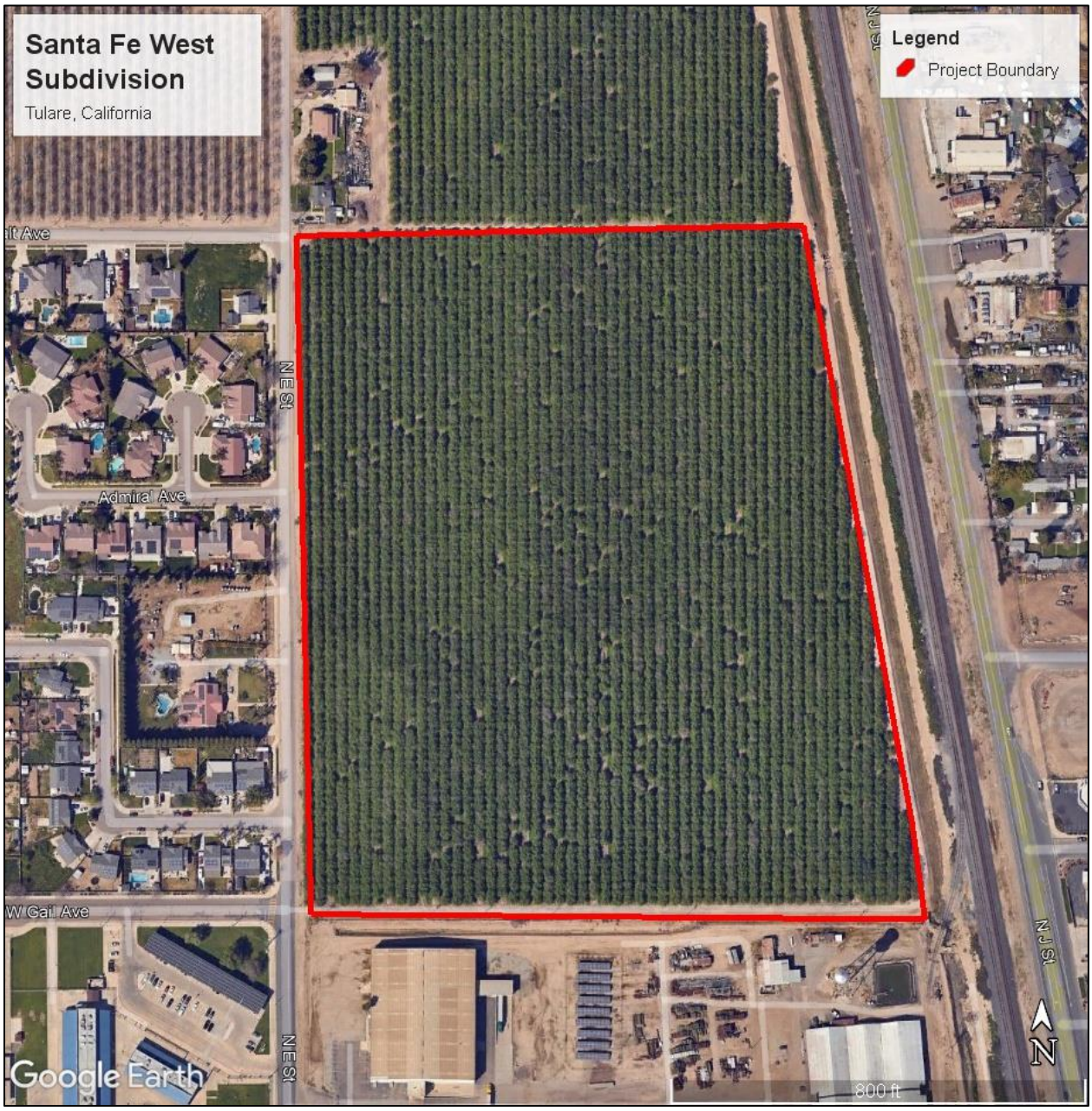

Figure 3 Aerial view of the Project boundary

ATTACHMENT B

Records Search Results

6083 N Figarden Dr., Ste. 616, Fresno, CA 93722
559.797.1572 / csaulsarchaeo@gmail.com

California Historical Resources Information System

Fresno
Inyo
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
Email: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

1/21/2025

Consuelo Sauls
Taylored Archaeology
6083 N. Figarden Drive, Suite 616
Fresno, CA 93722

Re: E Street Tentative Subdivision Map
Records Search File No.: 25-013

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on Tulare USGS 7.5' quad. The following reflects the results of the records search for the project area and the 0.5 mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☐ Custom GIS Maps ☒ GIS Data ☐ Hand Drawn Maps (Inyo County Only)

Resources within project area:	None
Resources within 0.5 mile radius:	P-54-002182, 004626, 005211
Reports within project area:	TU-00041, 00102, 01190
Reports within 0.5 mile radius:	TU-00103, 01324, 01646, 01677

Resource Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Database Printout (details): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (details): ☒ enclosed ☐ not requested ☐ nothing listed

Report Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Resource Record Copies: ☒ enclosed ☐ not requested ☐ nothing listed

Report Copies: ☒ enclosed ☐ not requested ☐ nothing listed

OHP Built Environment Resources Directory: ☒ enclosed ☐ not requested ☐ nothing listed

Archaeological Determinations of Eligibility: ☒ enclosed ☐ not requested ☐ nothing listed

CA Inventory of Historic Resources (1976): ☐ enclosed ☐ not requested ☒ nothing listed

Caltrans Bridge Survey: Not available at SSJVIC; please see https://dot.ca.gov/programs/environmental-analysis/cultural-studies/california-historical-bridges-tunnels

Ethnographic Information: Not available at SSJVIC

Historical Literature: Not available at SSJVIC

Historical Maps: Not available at SSJVIC; please see http://historicalmaps.arcgis.com/usgs/

Local Inventories: Not available at SSJVIC

GLO and/or Rancho Plat Maps: Not available at SSJVIC; please see http://www.glorecords.blm.gov/search/default.aspx#searchTabIndex=0&searchByTypeIndex=1 and/or http://www.oac.cdlib.org/view?docId=hb8489p15p;developer=local;style=oac4;doc.view=items

Shipwreck Inventory: Not available at SSJVIC; please see https://www.slc.ca.gov/shipwrecks/

Soil Survey Maps: Not available at SSJVIC; please see http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Celeste M. Thomson
Coordinator

ATTACHMENT C

Sacred Lands File Results

6083 N Figarden Dr., Ste. 616, Fresno, CA 93722
559.797.1572 / csaulsarchaeo@gmail.com

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Reginald Pagaling
Chumash

VICE-CHAIRPERSON
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

SECRETARY
Sara Dutschke
Miwok

PARLIAMENTARIAN
Wayne Nelson
Luiseño

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
Laurena Bolden
Serrano

COMMISSIONER
Reid Milanovich
Cahuilla

COMMISSIONER
Bennae Calac
Pauma-Yuima Band of Luiseño Indians

ACTING EXECUTIVE SECRETARY
STEVEN QUINN

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

January 9, 2025

Consuelo Sauls
Taylored Archaeology

Via Email to: csaulsarchaeo@gmail.com

Re: E Street Tentative Subdivision Map Project, Tulare County

To Whom It May Concern:

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: melina.carlos@nahc.ca.gov

Sincerely,

Melina Carlos

Melina Carlos
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Tulare County
1/9/2025

County	Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Tulare	Kitanemuk & Yowlumne Tejon Indians	N	Delia Dominguez, Chairperson	115 Radio Street Bakersfield, CA, 93305	(626) 339-6785		2deedominguez@gmail.com	Kitanemuk Southern Valley Yokut	Fresno,Kern,Kings,Los Angeles,Madera,Monterey,San Benito,San Luis Obispo,Tulare	
	Santa Rosa Rancheria Tachi Yokut Tribe	F	Nichole Escalon, Cultural Specialist I	P.O. Box 8 Lemoore, CA, 93245	(559) 924-1278			Southern Valley Yokut	Fresno,Kern,Kings,Merced,Monterey,San Benito,San Luis Obispo,Tulare	10/3/2023
	Santa Rosa Rancheria Tachi Yokut Tribe	F	Samantha McCarty, Cultural Specialist II	P.O. Box 8 Lemoore, CA, 93245	(559) 633-3440		smccarty@tachi-yokut-nsn.gov	Southern Valley Yokut	Fresno,Kern,Kings,Merced,Monterey,San Benito,San Luis Obispo,Tulare	10/3/2023
	Santa Rosa Rancheria Tachi Yokut Tribe	F	Shana Powers, THPO	P.O. Box 8 Lemoore, CA, 93245	(559) 423-3900			Southern Valley Yokut	Fresno,Kern,Kings,Merced,Monterey,San Benito,San Luis Obispo,Tulare	10/3/2023
	Table Mountain Rancheria	F	Bob Pennell, Cultural Resource	P.O. Box 410 Friant, CA, 93626	(559) 325-0351	(559) 325-0394	rpennell@tmr.org	Yokut	Fresno,Kern,Kings,Madera,Monterey,San Benito,San Luis Obispo,Tulare	
	Table Mountain Rancheria	F	Michelle Heredia-Cordova, Chairperson	P.O. Box 410 Friant, CA, 93626	(559) 822-2587	(559) 822-2693	mhcordova@tmr.org	Yokut	Fresno,Kern,Kings,Madera,Monterey,San Benito,San Luis Obispo,Tulare	12/21/2023
	Tule River Indian Tribe	F	Joey Garfield, Tribal Archaeologist	P. O. Box 589 Porterville, CA, 93258	(559) 783-8892	(559) 783-8932	joey.garfield@tuleirivertribe-nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,Kings,M	7/22/2016
	Tule River Indian Tribe	F	Kerri Vera, Environmental Department	P. O. Box 589 Porterville, CA, 93258	(559) 783-8892	(559) 783-8932	kerri.vera@tuleirivertribe-nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,Kings,M	7/22/2016

Native American Heritage Commission
Native American Contact List
Tulare County
1/9/2025

County	Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
	Tule River Indian Tribe	F	Neil Peyron, Chairperson	P.O. Box 589 Porterville, CA, 93258	(559) 781-4271	(559) 781-4610	neil.peyron@tuleriver tribe-nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,Kings,M	
	Wuksachi Indian Tribe/Eshom Valley Band	N	Kenneth Woodrow, Chairperson	1179 Rock Haven Ct. Salinas, CA, 93906	(831) 443-9702		kwood8934@aol.com	Foothill Yokut Mono	Alameda,Calaveras,Contra Costa,Fresno,Inyo,Kings,Madera, Marin,Mariposa,Merced,Mono,M	6/19/2023

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

Record: PROJ-2025-000137
Report Type: List of Tribes
Counties: Tulare
NAHC Group: All

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed E Street Tentative Subdivision Map Project, Tulare County.

COMMUNITY DEVELOPMENT

March 5, 2025

Santa Rosa Rancheria Tachi Yokut Tribe
Rueben Barrios Sr., Chairperson
P.O. Box 8
Lemoore, CA 93245

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 Tribal Consultation Government §21080.3.1

Dear Tribal Chairperson:

The City of Tulare has begun to process the following applications: Tentative Subdivision Map No. 2025-03 – Santa Fe West. The proposed project would develop a 171-lot single-family residential subdivision and related improvements. The proposed project site is split zoned R-1-6 (Single-family Residential, 6,000 sq. ft. minimum lot area), R-1-20 (Single-family Residential, 20,000 sq. ft. minimum lot area), and R-1-12.5 (Single-family Residential, 12,500 sq. ft. minimum lot area). The applicant has applied for a Zone Amendment to rezone the property to R-1-4 (Single-family Residential, 4,000 sq. ft. minimum lot area). The project site is located east of North E Street, west of North J Street and north of West Gail Avenue (APN 164-100-008 & 009).

The Project site is within the Tulare USGS quadrangle. It is located in Section 34, Township 19S, Range 24E, Mount Diablo Base and Meridian (BDM&M). An aerial image of the project site has been included (attached).

In compliance with AB 52 pursuant to Government Code §21080.3.1 this Department is requesting your review and comments on the potential impacts on cultural places associated with your tribe by this proposal. Your participation is important to the preparation of a environmental documentation to ensure that cultural places important to your tribe are identified, and the potential impacts associated with implementation of the project are mitigated.

If you have not responded by **April 6, 2025**, this Department will assume your tribe has declined consultation. Notification of the availability of public hearing notices will continue to be provided, even if consultation is declined.

Should you have any comments or questions please contact me at (559) 684-4221 or at jcoelho@tulare.ca.gov.

Respectfully,

Jonathan Coelho
Assistant Planner

Attachments:

I. Location Map

II. Site Plan

ZUMWALT AVE
NE ST
NAVAL CT
ADMIRAL AVE
ADMIRAL AVE
NE ST
RUSSELL DR
NE ST
NE ST
NJ ST
NJ ST
NJ ST
W SANDRA AVE
W GAIL AVE
W LYNN AVE
ALCOTT ST
ALCOTT ST

4CREEKS
324 S Santa Fe, STE A
Visalia, CA
559 802 3052
info@4-creeks.com
www.4-creeks.com

SET NOT FOR CONSTRUCTION
For planning purposes only, do not scale drawings

TENTATIVE SUBDIVISION MAP

P1.0

Appendix E

Phase I Environmental Site Assessment

Prepared For

BLUE FERN DEVELOPMENT
18300 REDMOND WAY, SUITE 120
REDMOND, WA 98052

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

PROPOSED DEVELOPMENT APNs 164-100-008 & 164-100-009 NORTHEAST OF THE T INTERSECTION OF NORTH E STREET AND WEST GAIL AVENUE TULARE, CALIFORNIA

Date Issued: August 15, 2024
Project Number 24-59

Prepared By

PAUL HUMPHREY, EP
7402 EAST CLINTON AVENUE
FRESNO, CALIFORNIA 93737
TEL (559) 592-3555

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EXECUTIVE SUMMARY

Paul Humphrey, EP has performed a Phase I Environmental Site Assessment (ESA) in general accordance with the scope of work and limitations set forth by Blue Fern Development for the property identified as Tulare County Recorder's Office as assessor's parcel numbers (APNs) 164-100-008 & 164-100-009, Tulare, California (the "Subject Property").

The Phase I Environmental Site Assessment is designed to provide Blue Fern Development with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the Subject Property. This assessment was conducted utilizing generally accepted ESA industry standards in accordance with ASTM E1527-21, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312).

The Subject Property includes two parcels of land totaling approximately 35 acres located northeast of the T intersection of North E Street and West Gail Avenue in Tulare, California. The Subject Property is identified as APNs 164-100-008 & 164-100-009. The Subject Property consists of agricultural land planted with an almond orchard.

At the time of the August 7, 2024, site reconnaissance, a groundwater monitoring well was observed at the east boundary of the Subject Property approximately 435 feet south of the northeast corner of the site. According to regulatory records reviewed through the online database known as Geotracker (http://geotracker.waterboards.ca.gov) maintained by the State Water Resource Control Board (SWRCB), this groundwater monitoring well is identified as MW-10. Paul Humphrey, EP was unable to determine if MW-10 is located on the Subject Property or the adjoining Tulare Irrigation District irrigation canal access road which is along the east boundary of the Subject Property. Regulatory records identified MW-10 as part of an ongoing investigation of a release of petroleum constituents to soil and groundwater at a facility located approximately 280 feet east of the Subject Property. The release site is listed as Mack Sylver-Bulk Plant at 2052 North J Street. For a discussion of the monitoring well and the former bulk fuel distribution facility, see the database review section below and Section 4.1.

Based on available historical documentation, the Subject Property consisted of agricultural land with two rural residences and outbuildings, and a small area of possible animal corrals in 1937, and agricultural land with a rural residence and outbuildings by 1946 and up to at least the mid-2000s. The Subject Property has consisted of agricultural land since at least 2009.

The Subject Property is situated within an agricultural, residential, and industrial area of Tulare, California. The Subject Property is bound to the north by a single-family residence and agricultural land; to the east by an irrigation canal, railroad tracks and North J Street followed by two automotive repair shops, a restaurant, a former bulk fuel/oil facility, two storage facilities, two equipment storge yards, and an all-terrain vehicle dealership; to the south by an irrigation canal followed by Tulare Industrial Center; and to the west by North E Street followed by single-family residence.

According to the online Geotracker database maintained by the SWRCB, groundwater in the area of the Subject Property was at a depth of 111 feet below surface grade in January 2017. The direction of groundwater flow was identified as ranging from southwest to south during 1996 to 2005 groundwater monitoring events.

Paul Humphrey, EP obtained and reviewed a database report from Environmental Risk Information Services (ERIS) for the Property and the surrounding area. The Subject Property was not identified in the database. The ERIS database listed off-site facilities as nine RCRA NON GEN, three ENVIROSTOR, one RECYCLING, four LUST, one UST, seven HHSS, six UST SWEEPS, one AST, one AST SWRCB, two DELISTED TNK, one CERS TANK, seven HIST TANK, two CLEANUP SITES, nine CUPA, one FINDS/FRS, one PFAS IND, one SCH, one CDO/CAO, one CERZ HAZ, eight EMISSIONS, and one CDL listings within the search radii.

The following is a discussion of one adjoining property of environmental significance and the associated database listings.

- Mack Sylver-Bulk Plant - 2052 North J Street: This bulk fuel/oil facility was formerly located approximately 280 feet east of the east boundary of the Subject Property, beyond an irrigation canal, railroad tracks, and North J Street. This facility is listed in the database as one AST, one CDO/CAO, one AST SWRCB, one PFAS IND, one CLEANUP SITES, one CUPA, and two EMISSIONS. These listings are associated with reporting, registration, and oversight actions with local and State regulatory agencies as a bulk fuel/oil facility with a release of petroleum hydrocarbons to soil and groundwater at this facility. According to regulatory documentation, this facility was a bulk fuel/oil facility beginning in approximately 1930. The Geotracker database maintained by the SWRCB states as their summary the following: *The Site is a bulk fuel storage and distribution station. Preliminary investigations in 1994 and 1996 indicated soils on the Site were impacted with significant concentrations of total petroleum hydrocarbons (TPH) compounds, including free floating product. Groundwater and soil remediation was initiated in 2003 and was ceased in 2005 and remains incomplete. The site has soil vapor extraction and removed additional free product. Eleven monitoring wells were constructed as a result of the initial investigations. A former domestic well that served a neighboring restaurant had to be abandoned due to impacts from TPH-diesel, ethylbenzene, and xylenes from the Site. The monitoring wells are on a quarterly monitoring schedule*. Regulatory information indicates that a significant amount of the impacts to soil and groundwater were removed between 2003 and 2005, however, the remediation was not completed. In June 2016, the Central Valley Regional Water Quality Control Board (RWQCB) directed the new owners of the site, identified as Mr. Robert Wasnick of BMW Investments, LLC, to conduct additional groundwater monitoring and to assess existing wells. Assessments to comply with the June 2016 RWQCB directive were conducted at the site between August 2016 and April 2018. At the time of sampling of monitoring wells on January 24, 2017, monitoring wells associated with this facility were identified as either dry or not able to be located except for MW-10. Groundwater analytical results in monitoring well MW10 (located at the east boundary of the Subject Property) were reported not detected above the reporting limit of contaminants of concern except for TPH-D at 490-micrograms per liter (µg/L). Prior sampling results of MW-10 identified low levels of TPH-D in 2001, 2002, and 2003, low levels of total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and xylenes (BTEX) in 2002. From the first quarter 2004 through the third quarter 2005, fuel hydrocarbons were reported as non-detect in MW-10. Paul Humphrey, EP contacted Kyle Wright with the RWQCB on August 7, 2024. According to Mr. Wright, all on-site wells at this facility were dry at the time of sampling in January 2017 and the owner will be required to provide a workplan to fully evaluate the remaining contamination. He indicated this will include installation of new monitoring wells at the facility and likely will require additional remediation.

Based on review of regulatory documentation, off-site location, and/or estimated direction of groundwater flow, the remaining off-site facilities listed in the database do not represent a recognized environmental condition.

Conclusions

Paul Humphrey, EP has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-21 of the property identified as APNs 164-100-008 & 164-100-009, Tulare, California, the Subject Property. Any exceptions to or deletions from this practice are described in Section 1.4 of this report.

Recognized Environmental Conditions (RECs) are defined by the ASTM Standard Practice E1527-21 as: (1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment. Paul Humphrey, EP's assessment has revealed the following RECs associated with the Subject Property or nearby properties:

- The identified low level of petroleum hydrocarbons in groundwater monitoring well MW-10 at the east boundary of the Subject Property during 2001, 2002, 2003, and January 2017 groundwater sampling, represents a recognized environmental condition. The identified source of the impacts to groundwater has been identified as the former bulk fuel/oil facility located at 2052 North J Street located approximately 280 feet to the east of the Subject Property.

Controlled Recognized Environmental Conditions (CRECs) are defined by the ASTM Standard Practice E1527-21 as a recognized environmental condition affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (for example, activity and use limitations or other property use limitations). Paul Humphrey, EP's assessment has revealed the following CRECs associated with the Subject Property or nearby properties:

- No on-site CRECs were identified during the course of this assessment.

Historical Recognized Environmental Condition (HREC) is defined by the ASTM Standard Practice E1527-21 as a previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls (for example, activity and use limitations or other property use limitations). Paul Humphrey, EP's assessment has revealed the following HRECs associated with the Subject Property or nearby properties:

- No on-site HRECs were identified during the course of this assessment.

Business Environmental Risk (BER) is defined by the ASTM Standard Practice E1527-21 as a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of commercial real estate, not necessarily related to those environmental issues required to be investigated in this practice. BERs do not qualify as recognized environmental conditions, as defined by the ASTM Standard Practice E1527-21. Paul Humphrey, EP's investigation has revealed the following BERs associated with the Subject Property or nearby properties:

- The Subject Property was historically and is currently used for agricultural purposes. There is a potential that agricultural related chemicals such as pesticides, herbicides, and fertilizers, may have been used onsite. Based on Paul Humphrey, EP's experience, during previous site development activities, near surface soils (where residual agricultural chemical concentrations would have most likely been present, if at all) are likely generally mixed with fill material or disturbed during grading. Also, it is common that engineered fill material is placed over

underlying soils as part of site development activities. These additional variables serve to further reduce the potential for exposure to residual agricultural chemicals (if any). Based on these reasons, Paul Humphrey, EP concludes that the possible use of agricultural chemicals is not expected to represent a significant environmental concern. If redevelopment activities for residential use are planned, it should be determined whether sampling relating to the former agricultural use is required by the local planning department or other applicable oversight agency.

Non-ASTM Considerations may include the presence of environmental conditions such as asbestos containing materials, lead-based paint, radon, mold, lead in drinking water, etc. which can affect the liabilities and financial obligations of the client, the health & safety of site occupants, and the value and marketability of the subject property. Paul Humphrey, EP's assessment has revealed the following Non-ASTM considerations associated with the Subject Property:

- No Non-ASTM considerations were identified during the course of the investigation.

Recommendations

As a result of this assessment, Paul Humphrey, EP recommends the following:

- Based on the low-level of petroleum hydrocarbons in groundwater monitoring well MW-10 from the former east adjoining bulk fuel/oil facility and identified responsible party, no assessment of groundwater by the owner of the Subject Property or User of this report is warranted.
- Based on proposed use of the Subject Property as residential, the User may consider a higher level of assessment of the shallow subsurface soils in the eastern area near groundwater monitoring well MW-10 to address potential vapor intrusion into indoor air space of future residences.

1.0 INTRODUCTION

Paul Humphrey, EP was retained by Blue Fern Development to conduct a Phase I Environmental Site Assessment (ESA) of the property identified as APNs 164-100-008 & 164-100-009, Tulare, California (Subject Property). The protocol used for this assessment is in general conformance with ASTM E1527-21, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312).

On August 7, 2024, Paul Humphrey, EP conducted a site reconnaissance to assess the possible presence of petroleum products and hazardous substances at the Subject Property. Paul Humphrey, EP's investigation included a review of aerial photographs, a reconnaissance of adjacent properties, background research, and a review of available local, state, and federal regulatory records regarding the presence of petroleum products and/or hazardous substances at the Subject Property.

Paul Humphrey, EP contracted ERIS, to perform a computer database search for local, state, and Federal regulatory records pertaining to environmental concerns for the Subject Property and properties in the vicinity of the Subject Property (see Section 4.1).

1.1 Purpose

The purpose of this Phase I Environmental Site Assessment (ESA) was to identify Recognized Environmental Conditions (as defined by ASTM Standard E-1527-21) in connection with the Subject Property.

1.2 Detailed Scope of Services

The purpose of the Phase I Environmental Site Assessment is to assist the client in identifying potential environmental liabilities associated with the presence of any hazardous substances or petroleum products, their use, storage, and disposal at and in the vicinity of the subject property that may have occurred at the subject property. Property assessment activities focused on: 1) a review of federal, state, tribal and local databases that identify and describe underground fuel tank sites, leaking underground fuel tank sites, hazardous waste generation sites, and hazardous waste storage and disposal facility sites within the ASTM approximate minimum search distance; 2) a property and surrounding site reconnaissance, and interviews with the past and present owners and current occupants and operators to identify potential environmental contamination; and 3) a review of historical sources to help ascertain previous land use at the site and in the surrounding area.

The goal of Paul Humphrey, EP in conducting the Phase I Environmental Site Assessment was to identify *(I)* the presence of *hazardous sub- stances* or *petroleum products* in, on, or at the *subject property* due to a *release* to the *environment; (2)* the likely presence of *hazardous substances* or *petroleum products* in, on, or at the *subject property* due to a *release* or likely *release* to the *environment;* or *(3)* the presence of *hazardous substances* or *petroleum products* in, on, or at the *subject property* under conditions that pose a *material threat* of a future *release* to the *environment*.

No other warranties are implied or expressed.

1.3 Significant Assumptions

There is a possibility that even with the proper application of these methodologies there may exist on the Subject Property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. Paul Humphrey, EP believes that the information obtained from the record review and the interviews concerning the site is reliable. However, Paul Humphrey, EP cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The methodologies of this assessment are not intended to produce all inclusive or comprehensive results, but rather to provide Blue Fern Development with information relating to the Subject Property.

1.4 Limitations and Exceptions

The findings and conclusions contain all of the limitations inherent in these methodologies that are referred to in ASTM 1527-21. Specific limitations and exceptions to this ESA are more specifically set forth below:

- A Phase I ESA interview with the previous owner of the Subject Property was not reasonably ascertainable. Consequently, information regarding the history and historical uses of the Subject Property obtained from an interview of the previous owner constitutes a data gap. Taken in consideration with the available information obtained in the course of preparing this report in conjunction with professional experience, there is no evidence to suggest that this data gap might alter the conclusions of this assessment.

1.5 Special Terms and Conditions

The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by the client. No subsurface exploratory drilling or sampling was done under the scope of this work. Unless specifically stated otherwise in the report, no chemical analyses have been performed during the course of this ESA.

Some of the information provided in this report is based upon personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those persons contacted.

1.6 Use Reliance

All reports, both verbal and written, are for the benefit of Blue Fern Development. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of Paul Humphrey, EP.

2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The Subject Property is located northeast of the T intersection of North E Street and West Gail Avenue in Tulare, California. The Subject Property is identified as Tulare County Recorder's Office as APNs 164-100-008 & 164-100-009.

2.2 Site and Vicinity General Characteristics

The Subject Property is located in an agricultural, residential, and industrial area consisting of agricultural land, single-family residences, service commercial, and multi-tenant light industrial.

2.3 Current Use of the Subject Property

The Subject Property consists of agricultural land.

2.4 Description of Site Improvements

The Subject Property includes two parcels of land totaling approximately 35 acres. The Subject Property consists of agricultural land planted with an almond orchard.

2.5 Current Use of Adjoining Properties

During the vicinity reconnaissance, Paul Humphrey, EP observed the following land use on properties in the immediate vicinity of the Subject Property.

North: Single-family residence and agricultural land

East: Irrigation canal, railroad tracks and North J Street followed by two automotive repair shops, a restaurant, a former bulk fuel/oil facility, two storage facilities, two equipment storge yards, and an all-terrain vehicle dealership

South: Irrigation canal followed by Tulare Industrial Center

West: North E Street followed by single-family residence

3.0 USER PROVIDED INFORMATION

Pursuant to ASTM E1527-21, Paul Humphrey, EP requested the following site information from Blue Fern Development (User of this report).

3.1 Title Records

Paul Humphrey, EP requested title records from the User; however, a 50-year chain of title was not available at the Subject Property and was not provided for review.

3.2 Environmental Liens or Activity and Use Limitation

Paul Humphrey, EP requested information from the User regarding knowledge of environmental liens, activity and use limitations for the Subject Property. The User had no knowledge of any environmental liens or use or activity limitations.

3.3 Specialized Knowledge

Paul Humphrey, EP inquired with the User regarding any specialized knowledge of environmental conditions associated with the Subject Property. The User was not aware of any environmental conditions associated with the Subject Property.

3.4 Commonly Known or Reasonably Ascertainable Information

Paul Humphrey, EP inquired with the User regarding any commonly known or *reasonably ascertainable* information within the local community about the Subject Property that is material to *recognized environmental conditions* in connection with the Subject Property. The User had no reasonably ascertainable information within the local community about the Subject Property that is material to recognized environmental conditions in connection with the Subject Property.

3.5 Valuation Reduction for Environmental Issues

Paul Humphrey, EP inquired with the User regarding any knowledge of reductions in property value due to environmental issues. The User was not aware of any valuation reductions associated with the Subject Property.

3.6 Owner, Property Manager, and Occupant Information

The following information regarding the Owner, Subject Property Manager and Occupants was provided by the User and Key Site Manager.

Subject Property Owner:	Whitten Farms LLC
Subject Property Manager:	Steve Whitten
Occupants:	None

3.7 Reason for Performing Phase I ESA

The purpose of this ESA was to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E-1527-21) in connection with the Subject Property. This ESA was also performed to permit the *User* to satisfy one of the requirements to qualify for the *innocent landowner*, *contiguous property owner*, or *bona fide prospective purchaser* limitations on scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) liability (hereinafter, the "*landowner liability protections*," or "*LLPs*"). ASTM Standard E-1527-13 constitutes "*all appropriate inquiry* into the previous ownership and uses of the *property* consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B).

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources

Information from standard Federal and state environmental record sources was provided through ERIS. Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. This integrated database also contains postal service data in order to enhance address matching. Records from one government source are compared to records from another to clarify any address ambiguities. The demographic and geographic information available provides assistance in identifying and managing risk. The accuracy of the geocoded locations is approximately +/-300 feet.

In some cases, location information supplied by the regulatory agencies is insufficient to allow the database companies to geocode facility locations. These facilities are listed under the unmappables ("orphan sites") section within the ERIS report. A review of the unmappable facilities indicated that none of these facilities are within the ASTM minimum search distance from the Subject Property.

Regulatory information from the database sources regarding possible recognized environmental conditions, within the ASTM minimum search distance from the Subject Property, was reviewed. Specific facilities are discussed below the Table if determined likely that a potential recognized environmental condition has resulted at the Subject Property from the listed facilities. Please refer to Appendix C for a complete listing.

Database	Search Distance (Miles)	Subject Property Listed	Total Number of Listings	Potential Environmental Concern to the Subject Property
NPL, PROPOSED NPL	1	No	0	
DELISTED NPL	0.5	No	0	
SEMS, SEMS ARCHIVE	0.5	No	0	
CERCLIS, CERCLIS NFRAP, CERCLIS LIENS	0.5	No	0	
RCRA CORRACTS	1	No	0	
RCRA-TSD	0.5	No	0	
RCRA LQG, SQG, CESQGs, VGN, NLR, NON GEN	0.25	No	9	No
FED ENG, FED INST	TP	No	0	
ERNS	TP	No	0	
FED BROWNFIELDS	0.5	No	0	
STATE/TRIBAL HWS (includes RESPONSE, Envirostor, DELISTED ENVS)	1	No	3	No

Database	Search Distance (Miles)	Subject Property Listed	Total Number of Listings	Potential Environmental Concern to the Subject Property
SWF/LF	0.5	No	0	
HWP	1	No	0	
LDS	0.5	No	0	
LUST, DELISTED LST	0.5	No	4	No
UST, UST SWEEPS	0.25	No	7	No
UST CLOSURE	0.5	No	0	
HHSS, AST, DELISTED TNK, CERS TANK	0.25	No	11	One adjoining listing: Yes, discussed below Table Remaining adjoining listings: No
DELISTED HAZ, LUR, HLUR, DEED, VCP	0.5	No	0	
CLEANUP SITES, DELISTED CLEANUP	0.5	No	2	One adjoining listing: Yes, discussed below Table Remaining adjoining listings: No
CERS HAZ	0.125	No	1	No
DELISTED CTNK, HIST TANK	0.25	No	7	No
TRIBAL LISTINGS	0.25-0.5	No	0	
DELISTED COUNTY, CUPA	0.25	No	9	One adjoining listing: Yes, discussed below Table Remaining adjoining listings: No
EMISSIONS	0.25	No	8	Two adjoining listings: Yes, discussed below Table Remaining adjoining listings: No
Additional State & Federal Listings	PO-1	No	7	Three adjoining listings: Yes, discussed below Table Remaining adjoining listings: No

The Subject Property was not identified in the database. The ERIS database listed off-site facilities as nine RCRA NON GEN, three ENVIROSTOR, one RECYCLING, four LUST, one UST, seven HHSS, six UST SWEEPS, one AST, one AST SWRCB, two DELISTED TNK, one CERS TANK, seven HIST TANK, two CLEANUP SITES, nine CUPA, one FINDS/FRS, one PFAS IND, one SCH, one CDO/CAO, one CERZ HAZ, eight EMISSIONS, and one CDL listings within the search radii.

The following is a discussion of one adjoining property of environmental significance and the associated database listings.

- Mack Sylver-Bulk Plant - 2052 North J Street: This bulk fuel/oil facility was formerly located approximately 280 feet east of the east boundary of the Subject Property, beyond an irrigation canal, railroad tracks, and North J Street. This facility is listed in the database as one AST, one

CDO/CAO, one AST SWRCB, one PFAS IND, one CLEANUP SITES, one CUPA, and two EMISSIONS. These listings are associated with reporting, registration, and oversight actions with local and State regulatory agencies as a bulk fuel/oil facility with a release of petroleum hydrocarbons to soil and groundwater at this facility. According to regulatory documentation, this facility was a bulk fuel/oil facility beginning in approximately 1930. The Geotracker database maintained by the SWRCB states as their summary the following: *The Site is a bulk fuel storage and distribution station. Preliminary investigations in 1994 and 1996 indicated soils on the Site were impacted with significant concentrations of TPH compounds, including free floating product. Groundwater and soil remediation was initiated in 2003 and was ceased in 2005 and remains incomplete. The site has soil vapor extraction and removed additional free product. Eleven monitoring wells were constructed as a result of the initial investigations. A former domestic well that served a neighboring restaurant had to be abandoned due to impacts from TPH-diesel, ethylbenzene, and xylenes from the Site. The monitoring wells are on a quarterly monitoring schedule.* Regulatory information indicates that a significant amount of the impacts to soil and groundwater were removed between 2003 and 2005, however, the remediation was not completed. In June 2016, the RWQCB directed the new owners of the site, identified as Mr. Robert Wasnick of BMW Investments, LLC, to conduct additional groundwater monitoring and to assess existing wells. Assessments to comply with the June 2016 RWQCB directive were conducted at the site between August 2016 and April 2018. At the time of sampling of monitoring wells on January 24, 2017, monitoring wells associated with this facility were identified as either dry or not able to be located except for MW-10. Groundwater analytical results in monitoring well MW10 (located at the east boundary of the Subject Property) were reported not detected above the reporting limit of contaminants of concern except for TPH-D at 490 µg/L. Prior sampling results of MW-10 identified low levels of TPH-D in 2001, 2002, and 2003, low levels of TPHg and BTEX in 2002. From the first quarter 2004 through the third quarter 2005, fuel hydrocarbons were reported as non-detect in MW-10. Paul Humphrey, EP contacted Kyle Wright with the RWQCB on August 7, 2024. According to Mr. Wright, all on-site wells at this facility were dry at the time of sampling in January 2017 and the owner will be required to provide a workplan to fully evaluate the remaining contamination. He indicated this will include installation of new monitoring wells at the facility and likely will require additional remediation.

Based on review of regulatory documentation, off-site location, and/or estimated direction of groundwater flow, the remaining off-site facilities listed in the database do not represent a recognized environmental condition.

4.2 Additional Environmental Record Sources

4.2.1 County Recorder/ Assessor

According to the Tulare County Recorder's Office, no environmentally related liens or deed restrictions have been recorded against the Subject Property.

4.2.2 Fire Officials

Records from the City of Tulare Fire Department were reviewed for evidence indicating the presence of underground storage tanks and for the use of hazardous substances. No record was found for the Subject Property.

4.2.3 Building Department

Records from the Tulare County Building and Planning Department were reviewed for evidence indicating the developmental history of the Subject Property, and for the presence of documentation relative to underground storage tanks. No records indicative of the current or past presence of USTs were noted.

4.2.4 Other Agencies

Paul Humphrey, EP's August 7, 2024, review of SWRCB Geotracker records of the leaking underground fuel tank (LUFT) database indicated that no record of LUFTs are on file with the RWQCB for the Subject Property.

Paul Humphrey, EP's August 7, 2024, review of the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) Envirostor California cleanup sites database available via the DTSC Internet Website indicated that no records of cleanup sites are on file with the DTSC for the Subject Property.

4.3 Physical Setting Sources

4.3.1 Topography

The USGS, Tulare, California Quadrangle 7.5 minute series topographic map wase reviewed for this ESA. The map was published by the USGS in 1950, photorevised 1969. According to the contour lines on the topographic maps, the elevation of the Subject Property is approximately 285 feet above mean sea level (MSL). The contour lines in the area of the Subject Property indicate the area is sloping gently to the west southwest. The Subject Property is depicted as having one small structure on the central west and one small structure on the central south portion of the site. The structures are typical of rural residences.

4.3.2 Soils/Geology

The Subject Property is located within the Great Valley geomorphic province, a long structural trough situated between the Sierra Nevada Mountains to the east, the Coast Range Mountains to the west and Tehachapi Mountains to the south. In the Tulare area, the sediments consist of recent and older alluvium derived primarily from the Sierra Nevada Mountains. Older (Pleistocene) alluvium unconformably overlies Pliocene-Pleistocene continental and marine deposits. The valley basement, consisting of pre-Tertiary granitic and metamorphic rocks, underlies the clastic section at a depth in excess of 2,000 feet below ground surface. Shallow soil stratigraphy in the Tulare County area is primarily sandy soils and sand-silt combination soils.

4.3.3 Hydrology

The site is located in the San Joaquin Valley groundwater basin, which is part of the San Joaquin Basin Hydrologic Study Area (HSA). Twenty-six ground-water basins and areas of potential groundwater storage have been identified in the San Joaquin Basin HSA. The HSA is bounded by the Sacramento-San Joaquin Delta to the north, the Sierra Nevada to the east, the Tehachapi Mountains to the south, and the Coastal Ranges to the west. Groundwater in the vicinity of the site is found within the Central Valley regional aquifer

system, an unconfined to semi-confined aquifer system within the older alluvium and deeper continental deposits. According to the online Geotracker database maintained by the SWRCB, groundwater in the area of the Subject Property was at a depth of 111 feet below surface grade in January 2017. The direction of groundwater flow was identified as ranging from southwest to south during 1996 to 2005 groundwater monitoring events.

No settling ponds, surface impoundments, wetlands or natural catchbasins were observed at the Subject Property during this investigation.

4.3.4 Flood Zone Information

A review of the Flood Insurance Rate Maps, published by the Federal Emergency Management Agency, was performed. According to Panel Number 06107C1275E, dated June 16, 2009, the Subject Property is located in Flood Zone X.

4.3.5 Oil and Gas Exploration

The on-site reconnaissance addressed oil and gas exploration at the Subject Property. According to the California Department of Conservation Geologic Energy Management, no operating or abandoned oil or gas wells are on or adjacent to the Subject Property.

4.3.6 Vapor Encroachment

A Tier 1 Vapor Encroachment Screen (VES) pursuant to ASTM E2600-10 was performed as part of this assessment to determine whether a potential *vapor encroachment condition* (VEC) exists at the Subject Property. The VES included the review of reasonably ascertainable information for the Subject Property and nearby properties. During the course of this assessment and based on use as agricultural land, a reasonable probability was not identified to indicate that a VEC exists at the Subject Property.

Based on proposed use of the Subject Property as residential, the User may consider a higher level of assessment of the shallow subsurface soils in the eastern area near groundwater monitoring well MW-10 to address potential vapor intrusion into indoor air space of future residences.

4.4 Historical Use Information: Subject Property and Adjoining Properties

Based on available historical documentation, the Subject Property consisted of agricultural land with two rural residences and outbuildings, and a small area of possible animal corrals in 1937, and agricultural land with a rural residence and outbuildings by 1946 and up to at least the mid-2000s. The Subject Property has consisted of agricultural land since at least 2009.

The north adjoining property consisted of agricultural land in 1937 and agricultural land with a rural residence since the mid-1940s. The east adjoining property consisted of a mix of commercial, residential and agriculture by 1937 and commercial and residences by the mid-1960s. The south adjoining property consisted of agricultural land in 1937 and increasing industrial use by the 1940s. The west adjoining property consisted of agricultural land with rural residences from at least 1937 up to development with single-family residences in the mid-2000s.

4.4.1 Aerial Photographs

Available aerial photographs dated 1937, 1946, 1956, 1969, 1974, 1984, 1987, 1994, 2003, 2004, 2005, 2006, 2009, 2010, 2012, 2014, 2016, 2018, 2020, and 2023, from ERIS were reviewed for this ESA. Copies of selected photographs are included in Appendix B-1 of this report. The photographs are discussed below:

Date:	1937
Scale:	1” = 500’
Photo ID:	ASCS
Description:	This photograph depicts the Subject Property as occupied by a rural residence and outbuildings on the south central area of the site, possible animal corrals on the central east portion of the site, and agricultural land on the remaining areas. The north adjoining property appears as agricultural land. The east adjoining property appears as an irrigation canal, railroad tracks, and roadway followed by a commercial property, a possible residence, and agricultural land. The south adjoining property appears as an irrigation canal followed by agricultural land. The west adjoining property appears as a roadway followed by agricultural land and rural residences.

Date:	1946
Scale:	1” = 500’
Photo ID:	Fairchild
Description:	This photograph depicts the Subject Property as occupied by a rural residence and outbuildings on the south central area of the site and agricultural land on the remaining areas. The north, south, and west adjoining properties appear as in the 1937 photograph. The east adjoining property appears as an irrigation canal, railroad tracks, and roadway followed by a commercial property, two residential properties, and agricultural land.

Date:	1956
Scale:	1” = 500’
Photo ID:	ASCS
Description:	This photograph depicts the Subject Property and adjoining properties as in the 1946 photograph.

Date:	1969
Scale:	1” = 500’
Photo ID:	USGS
Description:	This photograph depicts the Subject Property as occupied by a rural residence and outbuildings on the central west area of the site and agricultural land. The north adjoining property appears as a rural residence and agricultural land. The east adjoining property appears as an irrigation canal, railroad tracks, and roadway followed by three commercial properties, two residential properties, and storage yard areas. The south adjoining property

appears as an irrigation canal followed by a storage yard with two large commercial buildings. The west adjoining property appears as a roadway followed by two rural residences and agricultural land.

Date: 1974
Scale: 1” = 500’
Photo ID: NASA
Description: This photograph depicts the Subject Property and adjoining properties as in the 1969 photograph.

Date: 1984
Scale: 1” = 500’
Photo ID: USGS
Description: This photograph depicts the Subject Property as agricultural land. The adjoining properties appear as in the 1974 photograph.

Date: 1987
Scale: 1” = 500’
Photo ID: USGS
Description: This photograph depicts the Subject Property and adjoining properties as in the 1984 photograph.

Date: 1994
Scale: 1” = 500’
Photo ID: USGS
Description: This photograph depicts the Subject Property and the north, east, and south adjoining properties as in the 1987 photograph. The west adjoining property appears as a roadway followed by a rural residence and agricultural land.

Date: 2003, 2004, 2005, 2006
Scale: 1” = 500’
Photo ID: USDA
Description: These photographs depict the Subject Property and the north, east, and west adjoining properties as in the 1994 photograph. The south adjoining property appears as several large commercial buildings and a storage yard.

Date: 2009, 2010, 2012, 2014, 2016, 2018, 2020
Scale: 1” = 500’
Photo ID: USDA
Description: These photographs depict the Subject Property as agricultural land. The north, east, and south adjoining properties appear as in the 2003, 2004, 2005, and 2006 photographs. The west adjoining property appears as a roadway followed by single-family residences.

Date:	2023
Scale:	1” = 500’
Photo ID:	MAXAR
Description:	This photograph depicts the Subject Property and adjoining properties as in the 2009, 2010, 2012, 2014, 2016, 2018, and 2020 photographs.

4.4.2 Fire Insurance Maps

Historical Sanborn Fire Insurance maps were reviewed online at http://www.spl.org/. Fire insurance maps, which commonly date back to the 1800s, are typically reviewed in order to evaluate whether past usage or construction on the Property or within the near vicinity is environmentally noteworthy. Fire insurance map coverage of the area of the Property was not identified.

4.4.3 City Directories

Historical City directories published by Haines were reviewed at the Tulare County Library in Visalia, California for past names and business that were listed for the Property. The findings are presented in the following table:

YEAR	ON-SITE
1985, 1992, 1999	Residence
2005, 2010, 2015, 2019	No listing

4.4.4 Historical Topographic Maps

The review of historical topographic maps was not reviewed for this study. Historical use of the Subject Property was researched using other standard historical sources.

4.4.5 Additional Historical Record Sources

Additional historical record sources were not reviewed.

4.4.6 Prior Assessment Reports

No prior reports or relevant documentation in association with the Subject Property were made available to Paul Humphrey, EP during the course of this assessment.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

The Subject Property was inspected by Paul Humphrey on August 7, 2024. The weather at the time of the site visit was clear and approximately 80 degrees.

5.2 General Site Setting

The Subject Property is located within an agricultural, residential, and industrial area northeast of the T intersection of North E Street and West Gail Avenue in Tulare, California.

5.3 Exterior Observations

5.3.1 Solid Waste Disposal

Solid waste is not generated on the Subject Property. No indication of potentially hazardous material disposal was noted during the site reconnaissance.

5.3.2 Surface Water Drainage

The Subject Property consists of agricultural land which has no stormwater drainage system. Drainage appears sufficient as no areas of ponding or standing water were noted during the site visit.

5.3.3 Wells and Cisterns

At the time of the site reconnaissance, a groundwater monitoring well was observed at the east boundary of the Subject Property approximately 435 feet south of the northeast corner of the site. According to regulatory records reviewed through the online database known as Geotracker maintained by the SWRCB, this groundwater monitoring well is identified as MW-10. Paul Humphrey, EP was unable to determine if MW-10 is located on the Subject Property or the adjoining Tulare Irrigation District irrigation canal access road which is along the east boundary of the Subject Property. Regulatory records identified MW-10 as part of an ongoing investigation of a release of petroleum constituents to soil and groundwater at a facility located approximately 280 feet east of the Subject Property. The release site is listed as Mack Sylver-Bulk Plant at 2052 North J Street. For a discussion of the monitoring well and the former bulk fuel distribution facility, see the database review section in the Executive Summary and Section 4.1.

No aboveground evidence of cisterns was observed during the site reconnaissance.

5.3.4 Wastewater

No indications of industrial wastewater disposal or treatment facilities were observed during the onsite reconnaissance.

5.3.5 Additional Site Observations

No additional relevant general site characteristics of an environmental concern were observed.

5.4 Interior Observations

The Subject Property had no buildings or structures.

5.5 Potential Environmental Conditions

5.5.1 Hazardous Substances and Petroleum Products Used or Stored at the Site

No evidence of the use of hazardous substances or petroleum products use or storage was observed on the Subject Property.

5.5.1.1 Unlabeled Containers and Drums

No unlabeled containers or drums were observed during the site reconnaissance.

5.5.1.2 Disposal Locations of Regulated/ Hazardous Waste

No obvious indications of hazardous waste disposal were observed on the Subject Property or were indicated during interviews.

5.5.2 Evidence of Releases

No obvious indications of hazardous material or petroleum product releases, such as stained areas or stressed vegetation, was observed during the site reconnaissance or reported during interviews.

5.5.3 Polychlorinated Biphenyls (PCBs)

Older transformers and other electrical equipment could contain polychlorinated biphenyls (PCBs) at a level that subjects them to regulation by the U.S. EPA. PCBs in electrical equipment are controlled by United States Environmental Protection Agency regulations 40 CFR, Part 761. Under the regulations, there are three categories into which electrical equipment can be classified:

- Less than 50 parts per million (PPM) of PCBs – "*Non-PCB" transformer*
- 50 ppm-500 ppm – "*PCB-Contaminated" electrical equipment*
- Greater than 500 ppm – "*PCB" transformer*

No potential PCB-containing equipment such as transformers, oil-filled switches, hoists, lifts, dock levelers, hydraulic elevators, etc., is present.

5.5.4 Landfills

No evidence of on-site landfilling was observed or reported during the site reconnaissance.

5.5.5 Pits, Ponds, Lagoons, Sumps, and Catch Basins

No evidence of on-site pits, ponds, lagoons, sumps or catch basins was observed or reported during the site reconnaissance.

5.5.6 On-Site ASTs and USTs

No evidence of ASTs or USTs was observed during the Subject Property reconnaissance or reported during interviews.

5.5.7 Radiological Hazards

No radiological substances or equipment were observed or reported stored on the subject site.

5.5.8 Drinking Water

Drinking water is currently not provided or supplied to the Subject Property.

5.5.9 Additional Hazard Observations

No additional hazards were observed on the site.

5.5.10 Asbestos-Containing Materials (ACM)

An evaluation of ACM was not included in the scope of services and was not conducted.

5.5.11 Radon

The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the EPA Action limit of 4.0 picoCuries per Liter (pCi/L). It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the EPA recommends site specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures. Review of the EPA Map of Radon Zones places the Subject Property in Zone 2, where average predicted radon levels are between 2.0 and 4.0 pCi/L.

5.5.12 Lead-Based Paint

An evaluation of lead-based paint was not included in the scope of services and was not conducted.

5.5.13 Mold Evaluation

A mold evaluation was not included in the scope of services and was not conducted.

6.0 INTERVIEWS

6.1 Interview with Owner

The owner of the Subject Property was identified as Whitten Farms LLC. Steve Whitten was not aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the Subject Property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the Subject Property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

6.2 Interview with Site Manager

See Section 6.1 Above.

6.3 Interview with Occupants

The Subject Property is not occupied.

6.4 Interview with Local Government Officials

An interview was conducted with the Tulare County Environmental Health Department. According to TCEHD staff, no records were identified for the Subject Property.

An interview was conducted with a clerk at the Tulare County Planning and Development Department. According to the clerk, no records of environmental concern were identified for the Subject Property.

An interview was conducted with the City of Tulare Fire Department (CTFD). According to CTFD staff, no records were identified for the Subject Property.

Paul Humphrey, EP contacted Kyle Wright with the RWQCB on August 7, 2024. According to Mr. Wright, all wells at the east adjoining former bulk fuel/oil facility were dry at the time of sampling in January 2017 and the owner will be required to provide a workplan to fully evaluate the remaining contamination. He indicated this will include installation of new monitoring wells at the facility and likely will require additional remediation.

6.5 Interview with Others

Additional interviews were not conducted.

7.0 FINDINGS AND CONCLUSIONS

7.1 Findings

7.1.1 On-Site Environmental Conditions

No on-site recognized environmental conditions were identified during the course of this assessment.

7.1.2 Off-Site Environmental Conditions

An off-site REC was identified that is considered to have impacted the Subject Property.

7.1.3 Controlled Recognized Environmental Conditions

No on-site CRECs were identified during the course of this assessment.

7.1.4 Historical Recognized Environmental Conditions

No on-site HRECs were identified during the course of this assessment.

7.1.5 De Minimis Environmental Conditions

No *de minimis* environmental conditions were identified in connection with the Subject Property during the course of this assessment.

7.2 Opinion

Based on our professional opinion, an off-site recognized environmental condition was identified during the course of this assessment.

7.3 Conclusions

Paul Humphrey, EP has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-21 of the property identified as APNs 164-100-008 & 164-100-009, Tulare, California, the Subject Property. Any exceptions to or deletions from this practice are described in Section 1.4 of this report.

Paul Humphrey, EP's assessment has revealed the following RECs associated with the Subject Property or nearby properties:

- The identified low level of petroleum hydrocarbons in groundwater monitoring well MW-10 at the east boundary of the Subject Property during 2001, 2002, 2003, and January 2017 groundwater sampling, represents a recognized environmental condition. The identified source of the impacts to groundwater has been identified as the former bulk fuel/oil facility located at 2052 North J Street located approximately 280 feet to the east of the Subject Property.

Paul Humphrey, EP's investigation has revealed the following BERs associated with the Subject Property or nearby properties:

- The Subject Property was historically and is currently used for agricultural purposes. There is a potential that agricultural related chemicals such as pesticides, herbicides, and fertilizers, may have been used onsite. Based on Paul Humphrey, EP's experience, during previous site development activities, near surface soils (where residual agricultural chemical concentrations would have most likely been present, if at all) are likely generally mixed with fill material or disturbed during grading. Also, it is common that engineered fill material is placed over underlying soils as part of site development activities. These additional variables serve to further reduce the potential for exposure to residual agricultural chemicals (if any). Based on these reasons, Paul Humphrey, EP concludes that the possible use of agricultural chemicals is not expected to represent a significant environmental concern. If redevelopment activities for residential use are planned, it should be determined whether sampling relating to the former agricultural use is required by the local planning department or other applicable oversight agency.

7.4 Recommendations

As a result of this assessment, Paul Humphrey, EP recommends the following:

- Based on the low-level of petroleum hydrocarbons in groundwater monitoring well MW-10 from the former east adjoining bulk fuel/oil facility and identified responsible party, no assessment of groundwater by the owner of the Subject Property or User of this report is warranted.

- Based on proposed use of the Subject Property as residential, the User may consider a higher level of assessment of the shallow subsurface soils in the eastern area near groundwater monitoring well MW-10 to address potential vapor intrusion into indoor air space of future residences.

7.5 Deviations

This Phase I ESA substantially complies with the scope of services and ASTM 1527-21 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), as amended, except for exceptions and/or limiting conditions as discussed in Section 1.4.

8.0 REFERENCES

American Society for Testing and Materials, *Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*, ASTM Designation: E2600

American Society for Testing and Materials, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, ASTM Designation: E1527-13

American Society for Testing and Materials, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, ASTM Designation: E1527-21

ERIS, Aerial Photograph Report, 1910 North E Street, Tulare, California, Job number 24-59

ERIS, Radius Database Report, 1910 North E Street, Tulare, California, Job number 24-59

State of California Department of Conservation Geologic Energy Management web page, https://maps.conservation.ca.gov/oilgas/

State of California Department of Water Resources Division of Planning and Local Assistance, Groundwater Level Data Retrieval Map Interface web page, http://well.water.ca.gov/map/map.html

United States Department of Agriculture, Soil Conservation Service Soil Survey Tulare County, California, 1986

US Environmental Protection Agency, Map of Radon Zones web page, http://www.epa.gov/iaq/radon/zonemap.html

US Environmental Protection Agency, Office of Water web page, http://www.epa.gov/ogwdw000/swp/ssa/ssahome.html

U.S. Geological Survey, Tulare, California Topographic Quadrangle, 1950, photorevised 1969

Agencies Contacted:

City of Tulare Building and Planning Department

City of Tulare Fire Department

Tulare County Assessor's Office

Tulare County Department of Environmental Health

Central Valley Regional Water Quality Control Board

9.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

I declare that, to the best of my professional knowledge and belief, I have met the definition of *Environmental professional* as defined in §312.10 of 40 CFR 312" and have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Paul Humphrey, EP
Environmental Professional

10.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

10.1 Definition of an Environmental Professional

An Environmental Professional means: (1) a person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases or threatened re- leases (see § 312.l(c)) on, at, in, or to a property, sufficient to meet the objectives and performance factors in §§ 312.20(e) and (t). (2) Such a person must: (i) hold a current Professional Engineer's or Professional Geologist's license or registration from a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) and have the equivalent of three (3) years of full-time relevant experience; or (ii) be licensed or certified by the federal government, a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) to perform environmental inquiries as defined in § 312.21 and have the equivalent of three (3) years of full-time relevant experience; or (iii) have a Baccalaureate or higher degree from an accredited institution of higher education in a discipline of engineering or science and the equivalent of five (5) years of full-time relevant experience; or (iv) have the equivalent of ten (10) years of full-time relevant experience. (3) An environmental professional should remain cur- rent in his or her field through participation in continuing education or other activities. (4) The definition of environmental professional pro- vided above does not preempt state professional licensing or registration requirements such as those for a professional geologist, engineer, or site remediation professional. Before commencing work, a person should determine the applicability of state professional licensing or registration Jaws to the activities to be undertaken as part of the inquiry identified in § 312.21(b). (5) A person who does not qualify as an environmental professional under the foregoing definition may assist in the conduct of all appropriate inquiries in accordance with this part if such person is under the supervision or responsible charge of a person meeting the definition of an environmental professional provided above when conducting such activities.

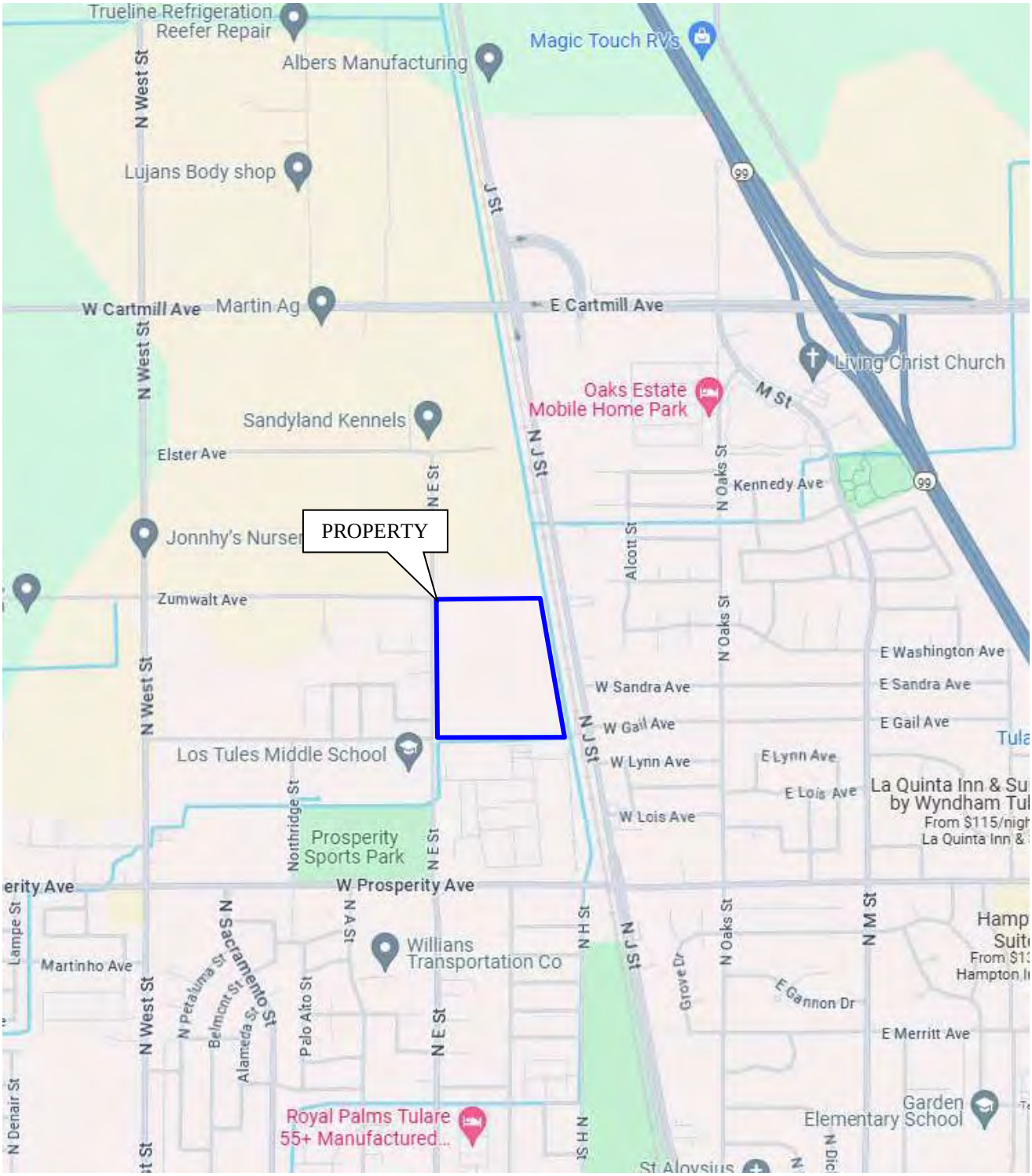
10.2 Relevant Experience

Relevant experience, as used in the definition of environmental professional in this section, means: participation in the performance of all appropriate inquiries investigations, environmental site assessments, or other site investigations that may include environmental analyses, investigations, and remediation which involve the understanding of surface and sub- surface environmental conditions and the processes used to evaluate these conditions and for which professional judgment was used to develop opinions regarding conditions indicative of releases or threatened releases (see § 312.l(c)) to the subject property.

Resumes for the Environmental Professionals involved in this project are included in Appendix G.

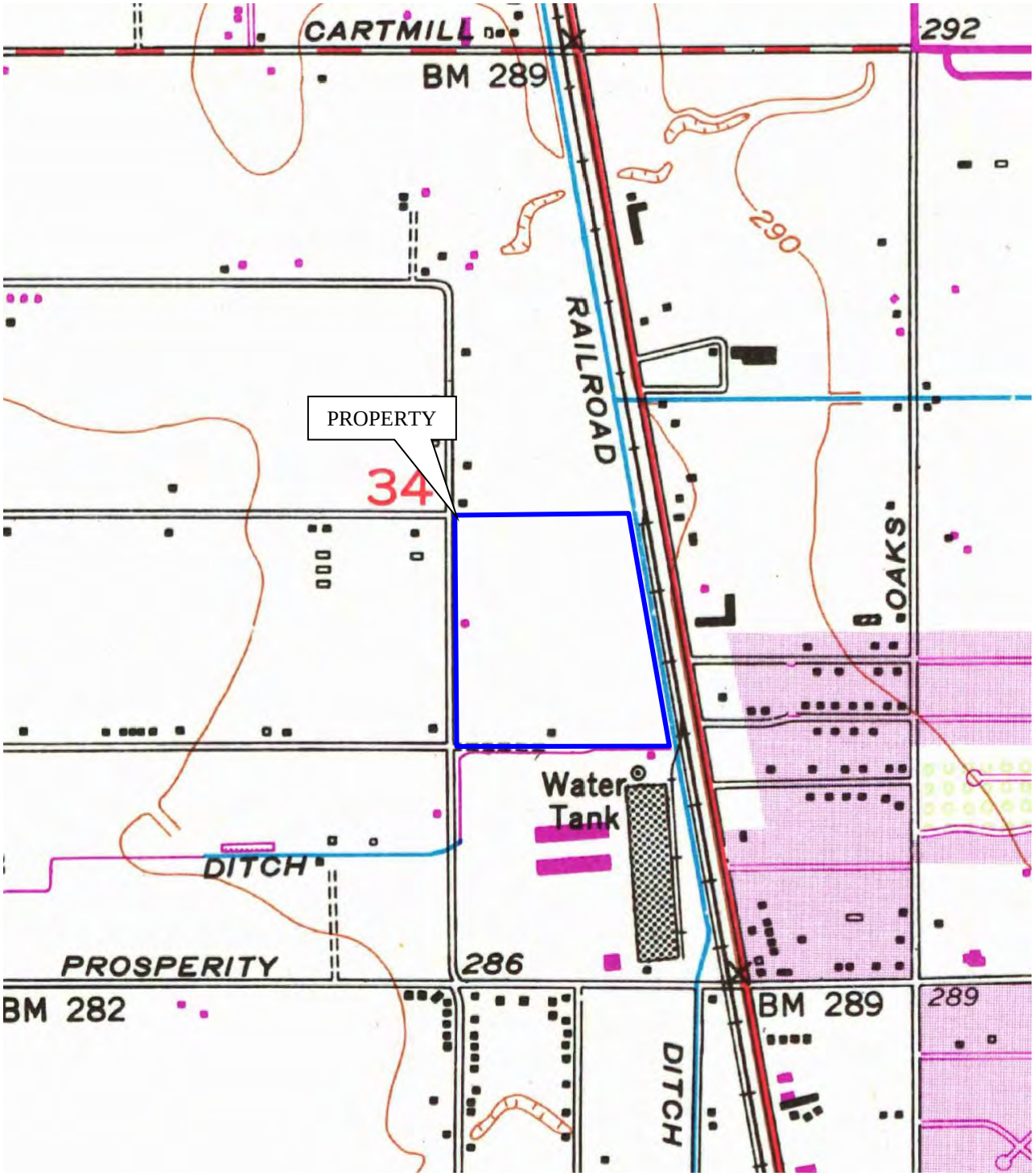
FIGURES

SITE LOCATION MAP
SITE PLAN
SITE TOPOGRAPHIC MAP



SITE VICINITY MAP	⇧ NORTH
PAUL HUMPHREY, EP **7402 E. CLINTON AVENUE** **FRESNO, CA 93737** **(559) 977-9813**	Site: Proposed Development Site Address: APNs 164-100-008 & 164-100-009 Tulare, CA Project Number: 24-59

SITE PLAN	⇧ NORTH Not to scale
PAUL HUMPHREY, EP **7402 E. CLINTON AVENUE** **FRESNO, CA 93737** **(559) 977-9813**	Site: Proposed Development Site Address: APNs 164-100-008 & 164-100-009 Tulare, CA Project Number: 24-59



PAUL HUMPHREY, EP
7402 E. CLINTON AVENUE
FRESNO, CA 93737
(559) 977-9813

TOPOGRAPHIC MAP

Source: U.S.G.S. 7.5 Minute Topographic Map
Tulare, CA, Quadrangle, 1950, photorevised 1969

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N

APPENDIX A

SITE PHOTOGRAPHS

1. Northwest portion of Subject Property along North E Street.

2. Central north portion of Subject Property.

3. East portion of Subject Property.

4. Monitoring well MW-10 located along east boundary of the Subject Property.

5. South portion of Subject Property.

6. Central east portion of Subject Property.

7. North adjoining residence and agricultural land.

8. East adjoining canal, railroad tracks, and J Street with east adjoining commercial area further to the east.

9. South adjoining industrial complex.

10. View across North E Street of west adjoining residences.

APPENDIX B

HISTORICAL RESEARCH DOCUMENTATION

EXHIBIT B-1

AERIAL PHOTOGRAPHS

HISTORICAL AERIALS

Project Property: Blue Fern
1910 North E Street
Tulare CA 93274

Project No: 24-59

Requested By: Paul Humphrey, REPA

Order No: 24080700594

Date Completed: August 09,2024

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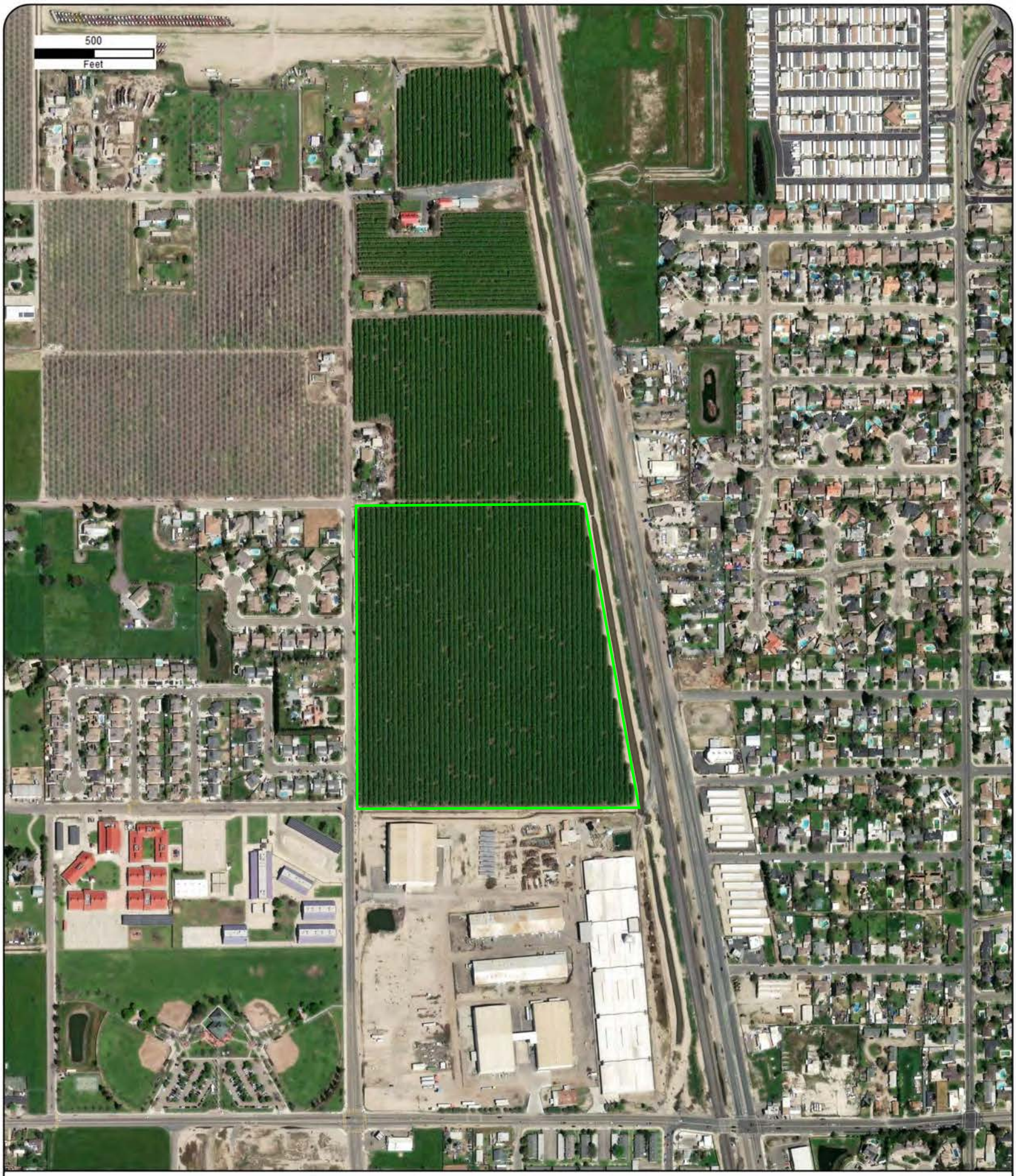
Date	Source	Scale	Comments
2023	Maxar Technologies	1" = 500'	
2020	United States Department of Agriculture	1" = 500'	
2018	United States Department of Agriculture	1" = 500'	
2016	United States Department of Agriculture	1" = 500'	
2014	United States Department of Agriculture	1" = 500'	
2012	United States Department of Agriculture	1" = 500'	
2010	United States Department of Agriculture	1" = 500'	
2009	United States Department of Agriculture	1" = 500'	
2006	United States Department of Agriculture	1" = 500'	
2005	United States Department of Agriculture	1" = 500'	
2004	United States Department of Agriculture	1" = 500'	
2003	United States Department of Agriculture	1" = 500'	
1994	United States Geological Survey	1" = 500'	
1987	United States Geological Survey	1" = 500'	
1984	United States Geological Survey	1" = 500'	
1974	National Aeronautics And Space Admin	1" = 500'	
1969	United States Geological Survey	1" = 500'	
1956	Agricultural Stabilization & Conserv. Service	1" = 500'	
1946	Fairchild	1" = 500'	
1937	Agricultural Stabilization & Conserv. Service	1" = 500'	



Year: 2023
Source: MAXAR
Scale: 1" = 500'
Comment:

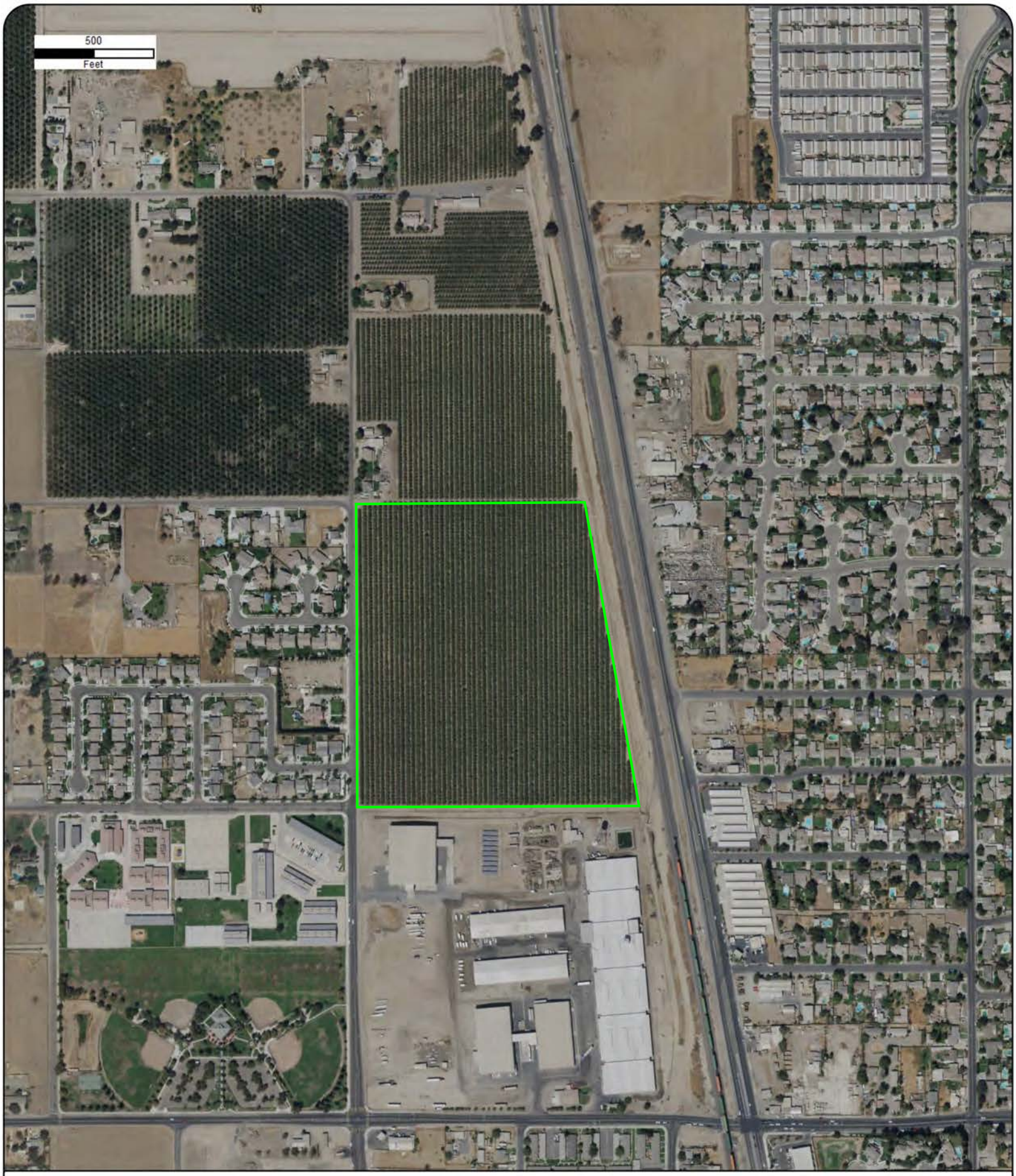
Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 2020
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594



Year: 2018
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Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 2016
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 2014
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 2012
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 2010
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 2009
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 2006
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Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 2005
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Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 2004
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 2003
Source: USDA
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 1994
Source: USGS
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 1987
Source: USGS
Scale: 1" = 500'
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Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 1984
Source: USGS
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Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 1974
Source: NASA
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 1969
Source: USGS
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 1956
Source: ASCS
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 1946
Source: FAIRCHILD
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

Year: 1937
Source: ASCS
Scale: 1" = 500'
Comment:

Address: 1910 North E Street, Tulare, CA
Approx Center: -119.35579421,36.2310768

Order No: 24080700594

APPENDIX C

REGULATORY RECORDS DOCUMENTATION

EXHIBIT C-1

MAPPED DATABASE REPORT

DATABASE REPORT

Project Property:	*Blue Fern* *1910 North E Street* *Tulare CA 93274*
Project No:	*24-59*
Report Type:	*Database Report*
Order No:	*24080700594*
Requested by:	*Paul Humphrey, REPA*
Date Completed:	*August 9, 2024*

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Executive Summary

Property Information:

Project Property:	*Blue Fern* *1910 North E Street Tulare CA 93274*
Project No:	*24-59*

Coordinates:

Latitude:	*36.2310768*
Longitude:	*-119.35579421*
UTM Northing:	*4,012,152.14*
UTM Easting:	*288,280.87*
UTM Zone:	*11S*

Elevation:	*292 FT*

Order Information:

Order No:	*24080700594*
Date Requested:	*August 7, 2024*
Requested by:	*Paul Humphrey, REPA*
Report Type:	*Database Report*

Historicals/Products:

Executive Summary: Report Summary

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
Standard Environmental Records								
Federal								
NPL	Y	1	0	0	0	0	0	0
PROPOSED NPL	Y	1	0	0	0	0	0	0
DELETED NPL	Y	0.5	0	0	0	0	-	0
SEMS	Y	0.5	0	0	0	0	-	0
SEMS ARCHIVE	Y	0.5	0	0	0	0	-	0
ODI	Y	0.5	0	0	0	0	-	0
CERCLIS	Y	0.5	0	0	0	0	-	0
IODI	Y	0.5	0	0	0	0	-	0
CERCLIS NFRAP	Y	0.5	0	0	0	0	-	0
CERCLIS LIENS	Y	PO	0	-	-	-	-	0
RCRA CORRACTS	Y	1	0	0	0	0	0	0
RCRA TSD	Y	0.5	0	0	0	0	-	0
RCRA LQG	Y	0.25	0	0	0	-	-	0
RCRA SQG	Y	0.25	0	0	0	-	-	0
RCRA VSQG	Y	0.25	0	0	0	-	-	0
RCRA NON GEN	Y	0.25	0	**2**	**7**	-	-	**9**
RCRA CONTROLS	Y	0.5	0	0	0	0	-	0
FED ENG	Y	0.5	0	0	0	0	-	0
FED INST	Y	0.5	0	0	0	0	-	0
LUCIS	Y	0.5	0	0	0	0	-	0
NPL IC	Y	0.5	0	0	0	0	-	0
ERNS 1982 TO 1986	Y	PO	0	-	-	-	-	0
ERNS 1987 TO 1989	Y	PO	0	-	-	-	-	0
ERNS	Y	PO	0	-	-	-	-	0
FED BROWNFIELDS	Y	0.5	0	0	0	0	-	0
FEMA UST	Y	0.25	0	0	0	-	-	0
FRP	Y	0.25	0	0	0	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
DELISTED FRP	Y	0.25	0	0	0	-	-	0
HIST GAS STATIONS	Y	0.25	0	0	0	-	-	0
REFN	Y	0.25	0	0	0	-	-	0
BULK TERMINAL	Y	0.25	0	0	0	-	-	0
SEMS LIEN	Y	PO	0	-	-	-	-	0
SUPERFUND ROD	Y	1	0	0	0	0	0	0
DOE FUSRAP	Y	1	0	0	0	0	0	0
State								
RESPONSE	Y	1	0	0	0	0	0	0
ENVIROSTOR	Y	1	0	0	**1**	0	**2**	**3**
DELISTED ENVS	Y	1	0	0	0	0	0	0
SWF/LF	Y	0.5	0	0	0	0	-	0
SWRCB SWF	Y	0.5	0	0	0	0	-	0
WMUD	Y	0.5	0	0	0	0	-	0
HWP	Y	1	0	0	0	0	0	0
SWAT	Y	0.5	0	0	0	0	-	0
C&D DEBRIS RECY	Y	0.5	0	0	0	0	-	0
RECYCLING	Y	0.5	0	0	0	**1**	-	**1**
PROCESSORS	Y	0.5	0	0	0	0	-	0
CONTAINER RECY	Y	0.5	0	0	0	0	-	0
LDS	Y	0.5	0	0	0	0	-	0
LUST	Y	0.5	0	0	**2**	**2**	-	**4**
DELISTED LST	Y	0.5	0	0	0	0	-	0
UST	Y	0.25	0	0	**1**	-	-	**1**
UST CLOSURE	Y	0.5	0	0	0	0	-	0
HHSS	Y	0.25	0	**1**	**6**	-	-	**7**
UST SWEEPS	Y	0.25	0	**1**	**5**	-	-	**6**
AST	Y	0.25	0	**1**	0	-	-	**1**
AST SWRCB	Y	0.25	0	**1**	0	-	-	**1**
TANK OIL GAS	Y	0.25	0	0	0	-	-	0
DELISTED TNK	Y	0.25	0	0	**2**	-	-	**2**
CERS TANK	Y	0.25	0	0	**1**	-	-	**1**
DELISTED CTNK	Y	0.25	0	0	0	-	-	0
HIST TANK	Y	0.25	0	**1**	**6**	-	-	**7**

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
LUR	Y	0.5	0	0	0	0	-	0
CALSITES	Y	0.5	0	0	0	0	-	0
HLUR	Y	0.5	0	0	0	0	-	0
DEED	Y	0.5	0	0	0	0	-	0
VCP	Y	0.5	0	0	0	0	-	0
CLEANUP SITES	Y	0.5	0	**2**	0	0	-	**2**
DELISTED CLEANUP	Y	0.5	0	0	0	0	-	0
DELISTED COUNTY	Y	0.25	0	0	0	-	-	0
Tribal								
INDIAN LUST	Y	0.5	0	0	0	0	-	0
INDIAN UST	Y	0.25	0	0	0	-	-	0
DELISTED INDIAN LST	Y	0.5	0	0	0	0	-	0
DELISTED INDIAN UST	Y	0.25	0	0	0	-	-	0
County								
CUPA TULARE	Y	0.25	0	**3**	**6**	-	-	**9**
Additional Environmental Records								
Federal								
PFAS GHG	Y	0.5	0	0	0	0	-	0
OSC RESPONSE	Y	0.125	0	0	-	-	-	0
FINDS/FRS	Y	PO	0	**1**	-	-	-	**1**
TRIS	Y	PO	0	-	-	-	-	0
PFAS NPL	Y	0.5	0	0	0	0	-	0
PFAS FED SITES	Y	0.5	0	0	0	0	-	0
PFAS SSEHRI	Y	0.5	0	0	0	0	-	0
ERNS PFAS	Y	0.5	0	0	0	0	-	0
PFAS NPDES	Y	0.5	0	0	0	0	-	0
PFAS TRI	Y	0.5	0	0	0	0	-	0
PFAS WATER	Y	0.5	0	0	0	0	-	0
PFAS TSCA	Y	0.5	0	0	0	0	-	0
PFAS E-MANIFEST	Y	0.5	0	0	0	0	-	0
PFAS IND	Y	0.5	0	**1**	0	0	-	**1**
HMIRS	Y	0.125	0	0	-	-	-	0
NCDL	Y	0.125	0	0	-	-	-	0
TSCA	Y	0.125	0	0	-	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
HIST TSCA	Y	0.125	0	0	-	-	-	0
FTTS ADMIN	Y	PO	0	-	-	-	-	0
FTTS INSP	Y	PO	0	-	-	-	-	0
PRP	Y	PO	0	-	-	-	-	0
SCRD DRYCLEANER	Y	0.5	0	0	0	0	-	0
ICIS	Y	PO	0	-	-	-	-	0
FED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED FED DRY	Y	0.25	0	0	0	-	-	0
FUDS	Y	1	0	0	0	0	0	0
FUDS MRS	Y	1	0	0	0	0	0	0
FORMER NIKE	Y	1	0	0	0	0	0	0
PIPELINE INCIDENT	Y	PO	0	-	-	-	-	0
MLTS	Y	PO	0	-	-	-	-	0
HIST MLTS	Y	PO	0	-	-	-	-	0
MINES	Y	0.25	0	0	0	-	-	0
SMCRA	Y	1	0	0	0	0	0	0
MRDS	Y	1	0	0	0	0	0	0
LM SITES	Y	1	0	0	0	0	0	0
ALT FUELS	Y	0.25	0	0	0	-	-	0
CONSENT DECREES	Y	0.25	0	0	0	-	-	0
AFS	Y	PO	0	-	-	-	-	0
SSTS	Y	0.25	0	0	0	-	-	0
PCBT	Y	0.5	0	0	0	0	-	0
PCB	Y	0.5	0	0	0	0	-	0
State								
PFAS SAMPLING	Y	0.5	0	0	0	0	-	0
DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DRYC GRANT	Y	0.25	0	0	0	-	-	0
PFAS GT CLEANUPS	Y	0.5	0	0	0	0	-	0
PFAS GW	Y	0.5	0	0	0	0	-	0
PFAS INVEST	Y	0.5	0	0	0	0	-	0
HWSS CLEANUP	Y	0.5	0	0	0	0	-	0
TOXIC PITS	Y	1	0	0	0	0	0	0
DTSC HWF	Y	0.5	0	0	0	0	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
INSP COMP ENF	Y	1	0	0	0	0	0	0
SCH	Y	1	0	0	**1**	0	0	**1**
CHMIRS	Y	PO	0	-	-	-	-	0
HIST CHMIRS	Y	PO	0	-	-	-	-	0
HAZNET	Y	PO	0	-	-	-	-	0
HAZ GEN	Y	PO	0	-	-	-	-	0
HAZ TSD	Y	0.5	0	0	0	0	-	0
HIST MANIFEST	Y	PO	0	-	-	-	-	0
HW TRANSPORT	Y	0.125	0	0	-	-	-	0
WASTE TIRE	Y	PO	0	-	-	-	-	0
MEDICAL WASTE	Y	0.25	0	0	0	-	-	0
HIST CORTESE	Y	0.5	0	0	0	0	-	0
CDO/CAO	Y	0.5	0	**1**	0	0	-	**1**
CERS HAZ	Y	0.125	0	**1**	-	-	-	**1**
DELISTED HAZ	Y	0.5	0	0	0	0	-	0
GEOTRACKER	Y	0.125	0	0	-	-	-	0
MINE	Y	1	0	0	0	0	0	0
LIEN	Y	PO	0	-	-	-	-	0
WASTE DISCHG	Y	0.25	0	0	0	-	-	0
EMISSIONS	Y	0.25	0	**2**	**6**	-	-	**8**
CDL	Y	0.125	0	**1**	-	-	-	**1**
Tribal	***No Tribal additional environmental record sources available for this State.***							
County								
	Total:		0	**19**	**44**	**3**	**2**	**68**

**** PO – Property Only***
**** 'Property and adjoining properties' database search radii are set at 0.25 miles.***

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
1	CLEANUP SITES	Tulare County	P.O. BOX 939 Tulare CA 93275 ***Global ID:*** SLT5S3483663	NNW	0.00 / 5.90	0	30
1	FINDS/FRS	TULARE COUNTY	P.O. BOX 939 TULARE CA 93275 ***Registry ID:*** 110065870445	NNW	0.00 / 5.90	0	32
2	CUPA TULARE	RICARDO DIAZ AUTO SALES	1984 N J ST TULARE CA 93274	ENE	0.03 / 176.74	1	32
3	CUPA TULARE	VAN HOUTEN SHOP	2112 N J ST TULARE CA 932741354	NE	0.03 / 178.55	1	33
3	RCRA NON GEN	REED VAN HOUTEN SHOP	2112 N J ST TULARE CA 93274 ***EPA Handler ID:*** CAL000470771	NE	0.03 / 178.55	1	33
3	CERS HAZ	VAN HOUTEN SHOP	2112 N J ST TULARE CA 93274	NE	0.03 / 178.55	1	34
4	RCRA NON GEN	CENTRAL CALIFORNIA IMPLEMENT CO DBA TULARE POLARIS	1730 N J ST TULARE CA 93274-1311 ***EPA Handler ID:*** CAL000362776	ESE	0.03 / 178.69	1	38
5	AST		2052 N J TULARE CA	NE	0.04 / 199.72	1	39
5	CDO/CAO	Mack Sylver, Inc	2052 J Tulare CA 93275	NE	0.04 / 199.72	1	39
5	AST SWRCB	MACK SYLVER	2052 NORTH J ST. TULARE CA	NE	0.04 / 199.72	1	41
6	PFAS IND	MACK SYLVER INC	TULARE CA	NE	0.05 / 241.48	1	41
7	CLEANUP SITES	MACK SYLVER, INC., TULARE	2052 NORTH J STREET TULARE CA ***Global ID:*** SL0610711757	NE	0.05 / 244.65	1	42

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
7	CUPA TULARE	MACK SYLVER-BULK PLANT	2052 N J ST TULARE CA 93274	NE	0.05 / 244.65	1	59
7	EMISSIONS	MACK SYLVER INC	2052 NORTH J ST TULARE CA 93274	NE	0.05 / 244.65	1	59
8	EMISSIONS	E2C REMEDIATION	2052 NORTH 'J' ST TULARE CA 93274	ENE	0.06 / 311.38	1	66
9	HHSS	BV W TAYLOR CEMENT CONST	1788 NORTH J. STREET TULARE CA 93274	ESE	0.06 / 332.32	1	67
9	HIST TANK	BV.W. TAYLOR CEMENT CONST.	1788 NORTH J. STREET TULARE CA	ESE	0.06 / 332.32	1	67
9	UST SWEEPS	B W TAYLOR	1788 N J ST TULARE CA ***C C | Status:*** A54-000-191 | ACTIVE ***Tank ID:*** 000001	ESE	0.06 / 332.32	1	68
10	CDL		1628 N J STREET (MINI STORAGE), #11 TULARE CA 93274	SE	0.10 / 547.63	1	68
11	SCH	HERITAGE SITE	GAIL AVENUE/NORTHRIDGE STREET TULARE CA 93274 ***Estor/EPA ID | Cleanup Status:*** 54010008 | NO FURTHER ACTION AS OF 7/30/2001	WNW	0.13 / 677.62	-3	68
11	ENVIROSTOR	HERITAGE SITE	GAIL AVENUE/NORTHRIDGE STREET TULARE CA 93274 ***Estor/EPA ID | Cleanup Status:*** 54010008 | NO FURTHER ACTION AS OF 7/30/2001	WNW	0.13 / 677.62	-3	70
12	DELISTED TNK	J STREET MINI MART	1510 N. J ST TULARE CA 93274	SE	0.14 / 760.50	1	71
12	LUST	KC'S MINI MART	1510 J ST N TULARE CA 93274 ***Global ID | Status:*** T0610700386 |	SE	0.14 / 760.50	1	71
12	HHSS	K C MINI MART	1510 N J ST. TULARE CA 93274	SE	0.14 / 760.50	1	73
12	HHSS	KCS MINI MART	1510 N. J ST. TULARE CA 93274	SE	0.14 / 760.50	1	73

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
12	CUPA TULARE	J STREET MINI MART	1510 N J ST TULARE CA 93274	SE	0.14 / 760.50	1	74
12	UST	J STREET MINI MART	1510 N J ST TULARE CA 93274	SE	0.14 / 760.50	1	74
			Facility ID: FA1059141 ***Tank ID No. | Tank Status | Tank Closure Date:*** TA1001168 | Renewal Permit | , TA1001167 | Renewal Permit | , TA1001169 | Renewal Permit |				
12	EMISSIONS	J STREET MINI MART	1510 NORTH 'J' ST TULARE CA 93274	SE	0.14 / 760.50	1	75
12	EMISSIONS	J STREET MINI MART	1510 NORTH J ST TULARE CA 93274	SE	0.14 / 760.50	1	78
12	CERS TANK	J STREET MINI MART	1510 N J ST TULARE CA 93274	SE	0.14 / 760.50	1	82
			Site ID: 359466				
12	HIST TANK	KC'S MINI MART	1510 N. "J" ST. TULARE CA	SE	0.14 / 760.50	1	99
12	HIST TANK	K C MINI MART	1510 N J ST. TULARE CA	SE	0.14 / 760.50	1	99
12	UST SWEEPS	KC S MINI MART	1510 N J ST TULARE CA	SE	0.14 / 760.50	1	100
			C C | Status: A54-000-59141 | ACTIVE ***Tank ID:*** 000001, 000002				
13	RCRA NON GEN	LOIS EARLES	223 WEST LYNN AVENUE TULARE CA 93724	ESE	0.15 / 811.08	1	100
			EPA Handler ID: CAC003207081				
14	DELISTED TNK	MACK SYLVER-BULK PLANT	2052 N. J ST TULARE CA 93274	NE	0.15 / 816.14	1	101
15	HIST TANK	CHESTER JACKSON	232 W. SANDRA AVE. TULARE CA	E	0.16 / 842.29	1	101
16	HHSS	CHESTER JACKSON	232 W. SANDRA AVE. TULARE CA 93274	E	0.16 / 858.93	1	102
16	UST SWEEPS	CHESTER JACKSON	232 W SANDRA AVE TULARE CA	E	0.16 / 858.93	1	102
			C C | Status: A54-000-48529 | ACTIVE ***Tank ID:*** 000001				
17	LUST	CROSCO MANUFACTURING	1478 J ST N TULARE CA 93274	SE	0.17 / 919.37	1	102

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
			Global ID | Status: T0610700242 |				
17	HHSS	CROSCO MANUFACTURING	1478 NORTH J STREET TULARE CA 93274	SE	0.17 / 919.37	1	105
17	CUPA TULARE	KIRBY MANUFACTURING	1478 N J ST TULARE CA 93274-1308	SE	0.17 / 919.37	1	105
17	EMISSIONS	KIRBY MANUFACTURING INC.	1478 NORTH 'J' STREET TULARE CA 93274	SE	0.17 / 919.37	1	106
17	EMISSIONS	KIRBY MANUFACTURING INC.	1478 NORTH J ST TULARE CA 93274	SE	0.17 / 919.37	1	106
17	EMISSIONS	KIRBY MANUFACTURING INC.	1478 NORTH 'J' STREET TULARE CA 0	SE	0.17 / 919.37	1	109
17	HIST TANK	CROSCO MANUFACTURING	1478 NORTH J STREET TULARE CA	SE	0.17 / 919.37	1	113
17	RCRA NON GEN	KIRBY MANUFACTURING TULARE INC	1478 NORTH J ST TULARE CA 93274 ***EPA Handler ID:*** CAL000271894	SE	0.17 / 919.37	1	113
17	UST SWEEPS	CROSCO MFG/JAMES W SMITH	1478 N J ST TULARE CA ***C C | Status:*** A54-000-88 | ACTIVE ***Tank ID:*** 000002, 000001	SE	0.17 / 919.37	1	114
18	RCRA NON GEN	BRENDA CARMICHAEL	167 W. LYNN AVE. TULARE CA 93274 ***EPA Handler ID:*** CAC003199958	ESE	0.20 / 1,046.74	1	114
19	CUPA TULARE	ARMANDO'S AUTO REPAIR	1410 N J ST TULARE CA 93274	SE	0.20 / 1,079.19	1	115
19	RCRA NON GEN	ARMANDO'S AUTO REPAIR	1410 N J ST TULARE CA 93274 ***EPA Handler ID:*** CAC003114481	SE	0.20 / 1,079.19	1	116
19	RCRA NON GEN	ARMANDO'S AUTO REPAIR	1410 N J ST TULARE CA 93274 ***EPA Handler ID:*** CAL000236247	SE	0.20 / 1,079.19	1	117

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
20	CUPA TULARE	AT&T MOBILITY - CARTMILL & J (USID133912)	2478 N E ST TULARE CA 93274	N	0.20 / 1,081.38	0	118
21	HHSS	ANDERSON CLAYTON AND CO TULARE	446 W. PROSPERITY AVE. TULARE CA 93274	S	0.21 / 1,084.53	-1	118
21	CUPA TULARE	ECO CHEMICAL & EQUIPMENT	446 W PROSPERITY TULARE CA 93274	S	0.21 / 1,084.53	-1	118
21	HIST TANK	ANDERSON CLAYTON & CO. TULARE	446 W. PROSPERITY AVE. TULARE CA	S	0.21 / 1,084.53	-1	119
21	RCRA NON GEN	AG SPECTRUM COMPANY	446 W. PROSPERITY AVE. TULARE CA 93274 ***EPA Handler ID:*** CAC002986984	S	0.21 / 1,084.53	-1	119
22	HHSS	TULARE COUNTY CONCRETE INC	210 WEST PROSPERITY AVE TULARE CA 93275	SE	0.23 / 1,214.33	1	120
22	CUPA TULARE	ARTESIA COMPANIES INC	210 W PROSPERITY AVE TULARE CA 93275	SE	0.23 / 1,214.33	1	120
22	EMISSIONS	THE ARTESIA COMPANY	210 W PROSPERITY TULARE CA	SE	0.23 / 1,214.33	1	120
22	HIST TANK	TULARE COUNTY CONCRETE, INC	210 WEST PROSPERITY AVE TULARE CA	SE	0.23 / 1,214.33	1	122
22	UST SWEEPS	TULARE COUNTY CONCRETE	210 W PROSPERITY TULARE CA ***C C | Status:*** A54-000-107 | ACTIVE ***Tank ID:*** 000001, 000002	SE	0.23 / 1,214.33	1	122
23	UST SWEEPS	ANDERSON CLAYTON & CO./TULARE	446 W PROPERITY TULARE CA ***C C | Status:*** A54-000-1924 | ACTIVE ***Tank ID:*** 000001	SSE	0.25 / 1,308.79	-1	123
23	RCRA NON GEN	TRUELINE REFRIGERATION	446 W PROSPERTY TULARE CA 93274 ***EPA Handler ID:*** CAC003177916	SSE	0.25 / 1,308.79	-1	123
24	RECYCLING	Rb Recycling	1280 North H St Tulare CA 93274	SSE	0.27 / 1,413.22	1	124

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
25	LUST	LUCIO TRUCKING CO.	1258 J ST N TULARE CA 93274 ***Global ID | Status:*** T0610700287 |	SE	0.29 / 1,523.49	1	125
26	LUST	FIDLER CONSTRUCTION (EVANS MOT	1146 J ST N TULARE CA 93274 ***Global ID | Status:*** T0610700215 |	SSE	0.39 / 2,074.62	1	128
27	ENVIROSTOR	TIDEWATER ASSOC OIL CO (3)	904 NORTH J ST TULARE CA 93274 ***Estor/EPA ID | Cleanup Status:*** 54290034 | NO FURTHER ACTION AS OF 9/12/1983	SSE	0.78 / 4,131.40	1	130
28	ENVIROSTOR	MOORE AVIATION	596 CARTMILL AVENUE TULARE CA 93274 ***Estor/EPA ID | Cleanup Status:*** 60000853 | NO FURTHER ACTION AS OF 7/19/2010	ENE	0.90 / 4,773.99	7	131

Executive Summary: Summary by Data Source

Standard

Federal

RCRA NON GEN - RCRA Non-Generators

A search of the RCRA NON GEN database, dated Apr 8, 2024 has found that there are 9 RCRA NON GEN site(s) within approximately 0.25miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
REED VAN HOUTEN SHOP	2112 N J ST TULARE CA 93274 ***EPA Handler ID**: CAL000470771*	NE	0.03 / 178.55	3
CENTRAL CALIFORNIA IMPLEMENT CO DBA TULARE POLARIS	1730 N J ST TULARE CA 93274-1311 ***EPA Handler ID**: CAL000362776*	ESE	0.03 / 178.69	4
LOIS EARLES	223 WEST LYNN AVENUE TULARE CA 93724 ***EPA Handler ID**: CAC003207081*	ESE	0.15 / 811.08	13
KIRBY MANUFACTURING TULARE INC	1478 NORTH J ST TULARE CA 93274 ***EPA Handler ID**: CAL000271894*	SE	0.17 / 919.37	17
BRENDA CARMICHAEL	167 W. LYNN AVE. TULARE CA 93274 ***EPA Handler ID**: CAC003199958*	ESE	0.20 / 1,046.74	18
ARMANDO'S AUTO REPAIR	1410 N J ST TULARE CA 93274 ***EPA Handler ID**: CAL000236247*	SE	0.20 / 1,079.19	19
ARMANDO'S AUTO REPAIR	1410 N J ST TULARE CA 93274 ***EPA Handler ID**: CAC003114481*	SE	0.20 / 1,079.19	19

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
AG SPECTRUM COMPANY	446 W. PROSPERITY AVE. TULARE CA 93274 ***EPA Handler ID**: CAC002986984*	S	0.21 / 1,084.53	21
TRUELINE REFRIGERATION	446 W PROSPERTY TULARE CA 93274 ***EPA Handler ID**: CAC003177916*	SSE	0.25 / 1,308.79	23

State

ENVIROSTOR - EnviroStor Database

A search of the ENVIROSTOR database, dated Jun 25, 2024 has found that there are 3 ENVIROSTOR site(s) within approximately 1.00miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
TIDEWATER ASSOC OIL CO (3)	904 NORTH J ST TULARE CA 93274	SSE	0.78 / 4,131.40	27
	***Estor/EPA ID | Cleanup Status**: 54290034 | NO FURTHER ACTION AS OF 9/12/1983*			
MOORE AVIATION	596 CARTMILL AVENUE TULARE CA 93274	ENE	0.90 / 4,773.99	28
	***Estor/EPA ID | Cleanup Status**: 60000853 | NO FURTHER ACTION AS OF 7/19/2010*			

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
HERITAGE SITE	GAIL AVENUE/NORTHRIDGE STREET TULARE CA 93274	WNW	0.13 / 677.62	11
	***Estor/EPA ID | Cleanup Status**: 54010008 | NO FURTHER ACTION AS OF 7/30/2001*			

RECYCLING - Recycling Centers

A search of the RECYCLING database, dated Jul 15, 2024 has found that there are 1 RECYCLING site(s) within approximately 0.50 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Rb Recycling	1280 North H St Tulare CA 93274	SSE	0.27 / 1,413.22	24

LUST - Leaking Underground Fuel Tank Reports

A search of the LUST database, dated Jul 4, 2024 has found that there are 4 LUST site(s) within approximately 0.50miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
KC'S MINI MART	1510 J ST N TULARE CA 93274	SE	0.14 / 760.50	12
	***Global ID | Status**: T0610700386 |*			
CROSCO MANUFACTURING	1478 J ST N TULARE CA 93274	SE	0.17 / 919.37	17
	***Global ID | Status**: T0610700242 |*			
LUCIO TRUCKING CO.	1258 J ST N TULARE CA 93274	SE	0.29 / 1,523.49	25
	***Global ID | Status**: T0610700287 |*			
FIDLER CONSTRUCTION (EVANS MOT	1146 J ST N TULARE CA 93274	SSE	0.39 / 2,074.62	26

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
	Global ID* | *Status: *T0610700215* |			

UST - Permitted Underground Storage Tank (UST) in GeoTracker

A search of the UST database, dated Jun 11, 2024 has found that there are 1 UST site(s) within approximately 0.25miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
J STREET MINI MART	1510 N J ST TULARE CA 93274	SE	0.14 / 760.50	12
	Facility ID: *FA1059141* ***Tank ID No. | Tank Status | Tank Closure Date***: *TA1001168* | *Renewal Permit* | , *TA1001167* | *Renewal Permit* | , *TA1001169* | *Renewal Permit* |			

HHSS - Historical Hazardous Substance Storage Information Database

A search of the HHSS database, dated Aug 27, 2015 has found that there are 7 HHSS site(s) within approximately 0.25miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
BV W TAYLOR CEMENT CONST	1788 NORTH J. STREET TULARE CA 93274	ESE	0.06 / 332.32	9
KCS MINI MART	1510 N. J ST. TULARE CA 93274	SE	0.14 / 760.50	12
K C MINI MART	1510 N J ST. TULARE CA 93274	SE	0.14 / 760.50	12
CHESTER JACKSON	232 W. SANDRA AVE. TULARE CA 93274	E	0.16 / 858.93	16
CROSCO MANUFACTURING	1478 NORTH J STREET TULARE CA 93274	SE	0.17 / 919.37	17
TULARE COUNTY CONCRETE INC	210 WEST PROSPERITY AVE TULARE CA 93275	SE	0.23 / 1,214.33	22

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
ANDERSON CLAYTON AND CO TULARE	446 W. PROSPERITY AVE. TULARE CA 93274	S	0.21 / 1,084.53	21

UST SWEEPS - Statewide Environmental Evaluation and Planning System

A search of the UST SWEEPS database, dated Oct 1, 1994 has found that there are 6 UST SWEEPS site(s) within approximately 0.25

miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
B W TAYLOR	1788 N J ST TULARE CA ***C C	Status**: A54-000-191	ACTIVE* ***Tank ID**: 000001*	ESE	0.06 / 332.32	9
KC S MINI MART	1510 N J ST TULARE CA ***C C	Status**: A54-000-59141	ACTIVE* ***Tank ID**: 000001, 000002*	SE	0.14 / 760.50	12
CHESTER JACKSON	232 W SANDRA AVE TULARE CA ***C C	Status**: A54-000-48529	ACTIVE* ***Tank ID**: 000001*	E	0.16 / 858.93	16
CROSCO MFG/JAMES W SMITH	1478 N J ST TULARE CA ***C C	Status**: A54-000-88	ACTIVE* ***Tank ID**: 000002, 000001*	SE	0.17 / 919.37	17
TULARE COUNTY CONCRETE	210 W PROSPERITY TULARE CA ***C C	Status**: A54-000-107	ACTIVE* ***Tank ID**: 000001, 000002*	SE	0.23 / 1,214.33	22

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
ANDERSON CLAYTON & CO. /TULARE	446 W PROPERITY TULARE CA ***C C	Status**: A54-000-1924	ACTIVE* ***Tank ID**: 000001*	SSE	0.25 / 1,308.79	23

AST - Aboveground Storage Tanks

A search of the AST database, dated Aug 31, 2009 has found that there are 1 AST site(s) within approximately 0.25miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
	2052 N J TULARE CA	NE	0.04 / 199.72	5

AST SWRCB - SWRCB Historical Aboveground Storage Tanks

A search of the AST SWRCB database, dated Dec 1, 2007 has found that there are 1 AST SWRCB site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
MACK SYLVER	2052 NORTH J ST. TULARE CA	NE	0.04 / 199.72	5

DELISTED TNK - Delisted Storage Tanks

A search of the DELISTED TNK database, dated Jun 24, 2024 has found that there are 2 DELISTED TNK site(s) within approximately 0.25miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
J STREET MINI MART	1510 N. J ST TULARE CA 93274	SE	0.14 / 760.50	12
MACK SYLVER-BULK PLANT	2052 N. J ST TULARE CA 93274	NE	0.15 / 816.14	14

CERS TANK - California Environmental Reporting System (CERS) Tanks

A search of the CERS TANK database, dated Apr 25, 2024 has found that there are 1 CERS TANK site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
J STREET MINI MART	1510 N J ST TULARE CA 93274 ***Site ID**: 359466*	SE	0.14 / 760.50	12

HIST TANK - Historical Hazardous Substance Storage Container Information - Facility Summary

A search of the HIST TANK database, dated May 27, 1988 has found that there are 7 HIST TANK site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
BV.W. TAYLOR CEMENT CONST.	1788 NORTH J. STREET TULARE CA	ESE	0.06 / 332.32	9
K C MINI MART	1510 N J ST. TULARE CA	SE	0.14 / 760.50	12
KC'S MINI MART	1510 N. "J" ST. TULARE CA	SE	0.14 / 760.50	12
CHESTER JACKSON	232 W. SANDRA AVE. TULARE CA	E	0.16 / 842.29	15
CROSCO MANUFACTURING	1478 NORTH J STREET TULARE CA	SE	0.17 / 919.37	17
TULARE COUNTY CONCRETE, INC	210 WEST PROSPERITY AVE TULARE CA	SE	0.23 / 1,214.33	22

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
ANDERSON CLAYTON & CO. TULARE	446 W. PROSPERITY AVE. TULARE CA	S	0.21 / 1,084.53	21

CLEANUP SITES - GeoTracker Cleanup Program Sites

A search of the CLEANUP SITES database, dated Jul 4, 2024 has found that there are 2 CLEANUP SITES site(s) within approximately 0.50miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Tulare County	P.O. BOX 939 Tulare CA 93275 ***Global ID**: SLT5S3483663*	NNW	0.00 / 5.90	1
MACK SYLVER, INC., TULARE	2052 NORTH J STREET TULARE CA ***Global ID**: SL0610711757*	NE	0.05 / 244.65	7

County

CUPA TULARE - Tulare County - CUPA List

A search of the CUPA TULARE database, dated May 13, 2023 has found that there are 9 CUPA TULARE site(s) within approximately 0.25miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
RICARDO DIAZ AUTO SALES	1984 N J ST TULARE CA 93274	ENE	0.03 / 176.74	2
VAN HOUTEN SHOP	2112 N J ST TULARE CA 932741354	NE	0.03 / 178.55	3
MACK SYLVER-BULK PLANT	2052 N J ST TULARE CA 93274	NE	0.05 / 244.65	7
J STREET MINI MART	1510 N J ST TULARE CA 93274	SE	0.14 / 760.50	12
KIRBY MANUFACTURING	1478 N J ST TULARE CA 93274-1308	SE	0.17 / 919.37	17
ARMANDO'S AUTO REPAIR	1410 N J ST TULARE CA 93274	SE	0.20 / 1,079.19	19

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
AT&T MOBILITY - CARTMILL & J (USID133912)	2478 N E ST TULARE CA 93274	N	0.20 / 1,081.38	20
ARTESIA COMPANIES INC	210 W PROSPERITY AVE TULARE CA 93275	SE	0.23 / 1,214.33	22

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
ECO CHEMICAL & EQUIPMENT	446 W PROSPERITY TULARE CA 93274	S	0.21 / 1,084.53	21

Non Standard

Federal

FINDS/FRS - Facility Registry Service/Facility Index

A search of the FINDS/FRS database, dated Apr 26, 2024 has found that there are 1 FINDS/FRS site(s) within approximately 0.02miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
TULARE COUNTY	P.O. BOX 939 TULARE CA 93275 ***Registry ID**: 110065870445*	NNW	0.00 / 5.90	1

PFAS IND - PFAS Industry Sectors

A search of the PFAS IND database, dated Jul 1, 2024 has found that there are 1 PFAS IND site(s) within approximately 0.50miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
MACK SYLVER INC	TULARE CA	NE	0.05 / 241.48	6

State

SCH - School Property Evaluation Program Sites

A search of the SCH database, dated Jun 25, 2024 has found that there are 1 SCH site(s) within approximately 1.00miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
HERITAGE SITE	GAIL AVENUE/NORTHRIDGE STREET TULARE CA 93274 ***Estor/EPA ID	Cleanup Status**: 54010008 | NO FURTHER ACTION AS OF 7/30/2001*	WNW	0.13 / 677.62	11

CDO/CAO - Cease and Desist Orders and Cleanup and Abatement Orders

A search of the CDO/CAO database, dated Dec 6, 2021 has found that there are 1 CDO/CAO site(s) within approximately 0.50miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
Mack Sylver, Inc	2052 J Tulare CA 93275	NE	0.04 / 199.72	5

CERS HAZ - California Environmental Reporting System (CERS) Hazardous Waste Sites

A search of the CERS HAZ database, dated Apr 25, 2024 has found that there are 1 CERS HAZ site(s) within approximately 0.12miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
VAN HOUTEN SHOP	2112 N J ST TULARE CA 93274	NE	0.03 / 178.55	3

EMISSIONS - Toxic Pollutant Emissions Facilities

A search of the EMISSIONS database, dated Dec 31, 2021 has found that there are 8 EMISSIONS site(s) within approximately 0.25 miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
MACK SYLVER INC	2052 NORTH J ST TULARE CA 93274	NE	0.05 / 244.65	7
E2C REMEDIATION	2052 NORTH 'J' ST TULARE CA 93274	ENE	0.06 / 311.38	8
J STREET MINI MART	1510 NORTH 'J' ST TULARE CA 93274	SE	0.14 / 760.50	12
J STREET MINI MART	1510 NORTH J ST TULARE CA 93274	SE	0.14 / 760.50	12
KIRBY MANUFACTURING INC.	1478 NORTH 'J' STREET TULARE CA 93274	SE	0.17 / 919.37	17
KIRBY MANUFACTURING INC.	1478 NORTH J ST TULARE CA 93274	SE	0.17 / 919.37	17
KIRBY MANUFACTURING INC.	1478 NORTH 'J' STREET TULARE CA 0	SE	0.17 / 919.37	17

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
THE ARTESIA COMPANY	210 W PROSPERITY TULARE CA	SE	0.23 / 1,214.33	22

CDL - Clandestine Drug Lab Sites

A search of the CDL database, dated Jan 19, 2021 has found that there are 1 CDL site(s) within approximately 0.12miles of the project property.

Equal/Higher Elevation	Address	Direction	Distance (mi/ft)	Map Key
	1628 N J STREET (MINI STORAGE), #11 TULARE CA 93274	SE	0.10 / 547.63	10

Map: 1.0 Mile Radius

Order Number: 24080700594

Address: 1910 North E Street, Tulare, CA

- Project Property
- Buffer Outline
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)

Source: © 2021 ESRI StreetMap Premium

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Map: 0.5 Mile Radius

Order Number: 24080700594

Address: 1910 North E Street, Tulare, CA

- Project Property
- Buffer Outline
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)

Source: © 2021 ESRI StreetMap Premium

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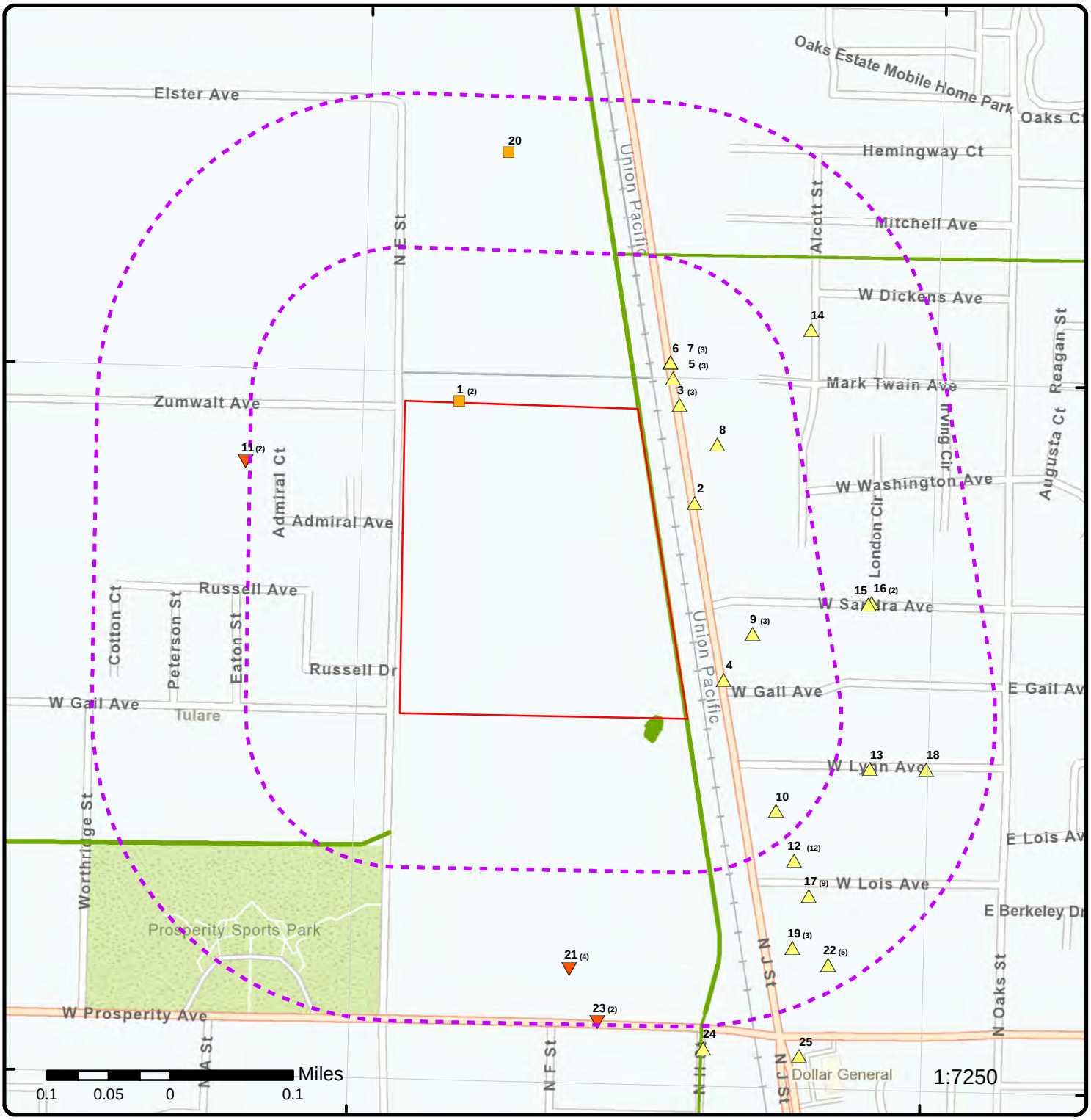

Map: 0.25 Mile Radius

Order Number: 24080700594

Address: 1910 North E Street, Tulare, CA

- Project Property
- Buffer Outline
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)

Source: © 2021 ESRI StreetMap Premium

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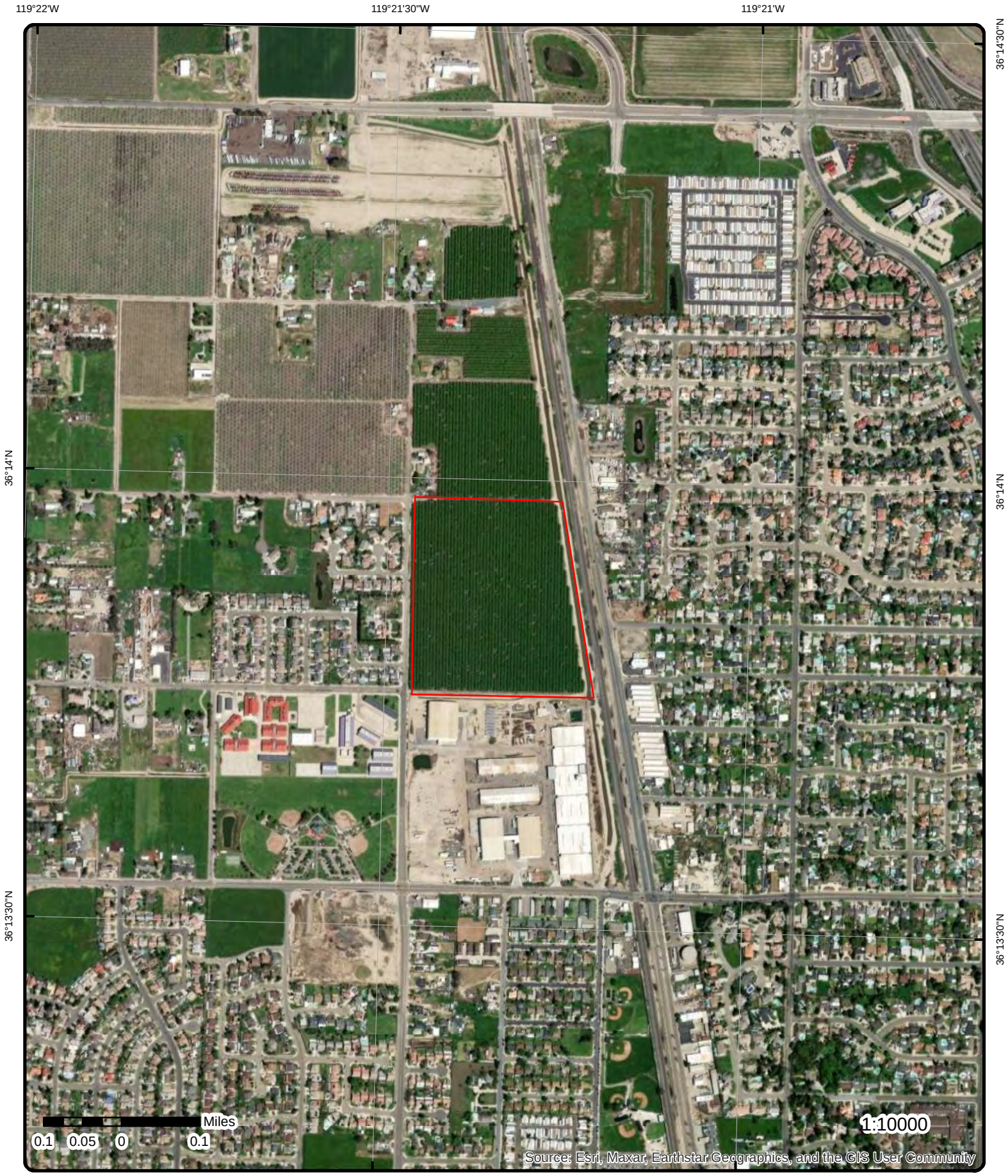

Aerial **Year: 2023**

Order Number: 24080700594

Address: 1910 North E Street, Tulare, CA

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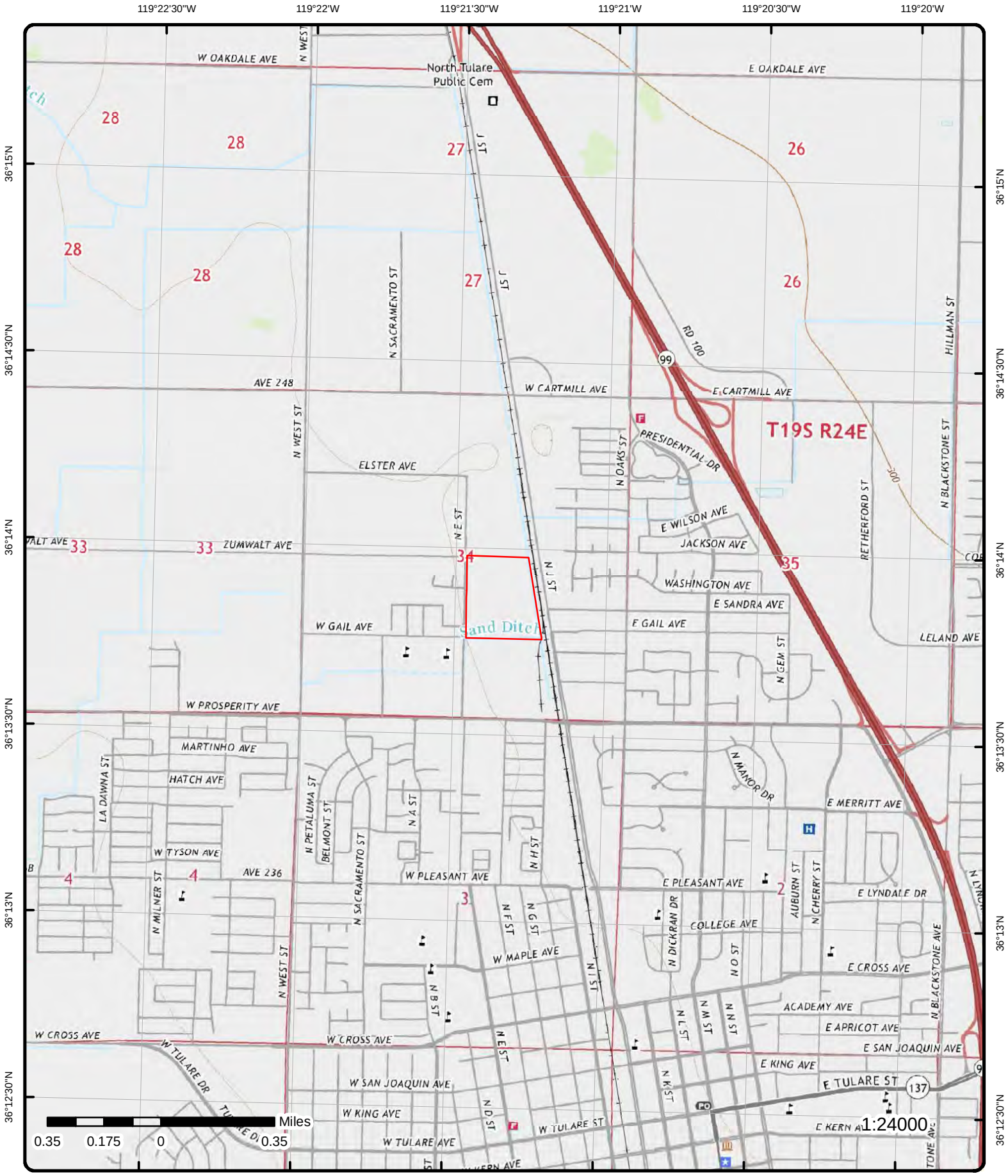
Source: ESRI World Imagery



Topographic Map

Year: 2021

Order Number: 24080700594

Address: 1910 North E Street, CA

Quadrangle(s): Paige CA, Goshen CA, Tulare CA, Visalia CA

Source: USGS Topographic Map

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Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	1 of2	NNW	0.00 / 5.90	291.19 / 0	Tulare County P.O. BOX 939 Tulare CA 93275	CLEANUP SITES

Global ID:	SLT5S3483663	**Site Facility Type:**	CLEANUP PROGRAM SITE
Site Fac Type (SRCH):	CLEANUP PROGRAM SITE	**Case Type (DL):**	Cleanup Program Site
Status (SRCH):	OPEN - INACTIVE	**RWQCB Region (DL):**	CENTRAL VALLEY RWQCB (REGION 5F)
Status (DL):	Open - Inactive	**Census Tract (SRCH):**	6107002100
Status Date (DL):	5/21/2009	**Latitude (DL):**	36.232992
Cleanup Status:	OPEN - INACTIVE	**Longitude (DL):**	-119.356918

Site Facility Name (SRCH):	TULARE COUNTY
Address (SRCH):	P.O. BOX 939
City (SRCH):	TULARE
Zip (SRCH):	93275
County (SRCH):	TULARE
Street No (DL):	
Street Name (DL):	P.O. BOX 939
City (DL):	Tulare
Zip (DL):	93275
County (DL):	Tulare
State (DL):	CA
Site Facility Name :	TULARE COUNTY
Address :	P.O. BOX 939
City :	TULARE
Zip :	93275
County :	TULARE
Report Source:	GeoTracker Search Results (SRCH); GeoTracker Sites Data Download (DL); GeoTracker Search Results Report

GeoTracker Sites Data Download - Site Details

RB Case No:	SLT5S348
Local Case No:	
Begin Date:	5/20/2009
Lead Agency:	CENTRAL VALLEY RWQCB (REGION 5S)
Local Agency:	
CUF Case:	NO
CalEnvScreen Score:	
EPA Region:	9
Qty Rlsd Gallons:	
Potential COC:	
How Discovered:	
Stop Method:	
Stop Description:	
Case Worker:	ZZZ
Military DoD Site:	No
Leak Reported Dt:	1965-01-02 00:00:00
No Further Action Dt:	
Potential Media of Concern:	
How Discovered Description:	
Calwater Watershed Name:	South Valley Floor - Kaweah Delta (558.10)
DWR GW Subbasin Name:	San Joaquin Valley - Kaweah (5-022.11)
Disadvantaged Community:	
Coordinate Source:	
Discharge Cause:	
Discharge Source:	
Facility Project Sub Type:	
Calenviroscreen 3 Score:	76-80%
Calenviroscreen 4 Score:	80-85%

File Location:
Site History:

GeoTracker Sites Data Download - Status History

Status: Open - Inactive
Status Date: 2009-05-21 00:00:00

Status: Open - Case Begin Date
Status Date: 2009-05-20 00:00:00

GeoTracker Sites Data Download - Regulatory Contacts

Contact Type: Regional Board Caseworker - Primary Caseworker
Contact Name: zzz
Organization Name: CENTRAL VALLEY RWQCB (REGION 5S)
Address: 11020 SUN CENTER DRIVE #200
City: RANCHO CORDOVA
Email: info5@waterboards.ca.gov
Phone No:

GeoTracker Search - Facilities (as of June 5, 2024)

Project Status:
Cuf Claim No:
CUF Priority Assign:
CUF Amount Paid:
Composting Method:
Facility Type:
WDR Place Type:
WDR File No:
WDR Order No:
File Location:
User Defined Beneficial Use:
Designated Beneficial Use: MUN, AGR, IND, PROC, REC_1, REC_2
Designated Beneficl Use Desc: Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply, Water Contact Recreation, Non-Contact Water Recreation
Project Oversight Agencies:
Report Link: https://geotracker.waterboards.ca.gov/profile_report?global_id=SLT5S3483663
Cleanup Status Detail: OPEN - INACTIVE AS OF 5/21/2009
Potential COC: PESTICIDES/HERBICIDES
Potential Media of Concern: NONE SPECIFIED
Groundwater Monitoring Freq:
DWR GW Sub Basin: San Joaquin Valley - Kaweah (5-022.11)
CalWater Watershed Name: South Valley Floor - Kaweah Delta (558.10)
Post Closure Site Management:
Future Land Use:
Cleanup Oversight Agencies: CENTRAL VALLEY RWQCB (REGION 5S) (LEAD) - CASE #: SLT5S348
CASE MANAGER: zzz
Cleanup History Link: https://geotracker.waterboards.ca.gov/profile_report_include?global_id=SLT5S3483663&tabname=regulatoryhistory
Site History:

No site history available

GeoTracker Search - Regulatory Activities (as of June 5, 2024)

Action Type: Leak Action
Action: Leak Reported
Action Date: 1/2/1965
Received Issue Date:
Doc Link:
Title Description Comments:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status: Open - Inactive
Date: 5/21/2009

Status: Open - Case Begin Date
Date: 5/20/2009

1	2 of2	NNW	0.00 / 5.90	291.19 / 0	TULARE COUNTY P.O. BOX 939 TULARE CA 93275	FINDS/FRS

Registry ID: 110065870445
FIPS Code:
HUC Code: 18030012
Site Type Name: STATIONARY
Location Description:
Supplemental Location:
Create Date: 13-OCT-15
Update Date:
Interest Types: STATE MASTER
SIC Codes:
SIC Code Descriptions:
NAICS Codes:
NAICS Code Descriptions:
Conveyor: CALEPA
Federal Facility Code:
Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No: 21
Census Block Code: 061070021002060
EPA Region Code: 09
County Name: TULARE
US/Mexico Border Ind:
Latitude: 36.232992
Longitude: -119.356918
Reference Point:
Coord Collection Method: UNKNOWN
Accuracy Value:
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110065870445
Data Source: Facility Registry Service - Single File
Program Acronyms:

CA-ENVIROVIEW:238949

2	1 of1	ENE	0.03 / 176.74	292.70 / 1	RICARDO DIAZ AUTO SALES 1984 N J ST TULARE CA 93274	CUPA TULARE

Facility ID: FA1351680
CERS ID:
Phone: 5593036211
Second Phone:
GIS Latitude: 36.231801
GIS Longitude: -119.353095
APN: 164-060-002

Details

Gen Prog Record ID: PR1357919
Haz Emerg Record ID: EM0009817
Comment:
Current Status: Inactive, non-billable

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

PE:	2223	**Billing Status:**	Inactive, non-billable
Description:	Haz Mat - < 6 Reportable Quantities of Chem		

Gen Prog Record ID:	PR1357921	**Comment:**	
Haz Emerg Record ID:	EM0009817	**Current Status:**	Inactive, non-billable
PE:	2277	**Billing Status:**	Inactive, non-billable
Description:	CUPA OVERSIGHT CA SURCHARGE		

Gen Prog Record ID:	PR1357920	**Comment:**	
Haz Emerg Record ID:	EM0009817	**Current Status:**	Inactive, non-billable
PE:	2254	**Billing Status:**	Inactive, non-billable
Description:	HW - SMALL GENERATOR		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	1 of3	NE	0.03 / 178.55	292.73 / 1	VAN HOUTEN SHOP 2112 N J ST TULARE CA 932741354	CUPA TULARE

Facility ID:	FA0005327	**GIS Latitude:**	36.233092106
CERS ID:	10604674	**GIS Longitude:**	-119.353337712
Phone:	5596888497	**APN:**	164-050-009
Second Phone:	5596888497		

Details

Gen Prog Record ID:	PR1346896	**Comment:**	TULARE CITY
Haz Emerg Record ID:	EM0000945	**Current Status:**	Active, billable
PE:	2277	**Billing Status:**	Active, billable
Description:	CUPA OVERSIGHT CA SURCHARGE		

Gen Prog Record ID:	PR0002810	**Comment:**	TULARE CITY
Haz Emerg Record ID:	EM0000945	**Current Status:**	Active, billable
PE:	2224	**Billing Status:**	Active, billable
Description:	Haz Mat 6 - 15 Reportable Quantities of Chem		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	2 of3	NE	0.03 / 178.55	292.73 / 1	REED VAN HOUTEN SHOP 2112 N J ST TULARE CA 93274	RCRA NON GEN

EPA Handler ID:	CAL000470771
Gen Status Universe:	No Report
Contact Name:	REED VAN HOUTEN
Contact Address:	2112 N J ST , , TULARE , CA, 93274 ,
Contact Phone No and Ext:	559-688-8497
Contact Email:	TIRERINGMASTER@YAHOO.COM
Contact Country:	
County Name:	TULARE
EPA Region:	09
Land Type:	
Receive Date:	20220517
Location Latitude:	
Location Longitude:	

Violation/Evaluation Summary

Note: NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No

Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20220517
Handler Name:	REED VAN HOUTEN SHOP
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	2112 N J ST
Name:	REED VAN HOUTEN	***Street 2:***	
Date Became Current:		***City:***	TULARE
Date Ended Current:		***State:***	CA
Phone:	559-688-8497	***Country:***	
Source Type:	Implementer	***Zip Code:***	93274
Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	2112 N J ST
Name:	REED VAN HOUTEN	***Street 2:***	
Date Became Current:		***City:***	TULARE
Date Ended Current:		***State:***	CA
Phone:	559-688-8497	***Country:***	
Source Type:	Implementer	***Zip Code:***	93274

3	*3 of3*	*NE*	*0.03 / 178.55*	*292.73 / 1*	***VAN HOUTEN SHOP*** ***2112 N J ST*** ***TULARE CA 93274***	***CERS HAZ***

Site ID:	613160
Latitude:	36.234163
Longitude:	-119.353959

Regulated Programs

EI ID:	10604674	***EI Description:***	Chemical Storage Facilities

Violations

Violation Date:	04/20/2022	***Violation Source:***	CERS
Violation Program:	HMRRP	***Violation Division:***	Tulare County Environmental Health
Citation:	HSC 6.95 25508(a)(3) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(3)		
Violation Notes:			

Returned to compliance on 06/26/2022.

Violation Description:

Failure to establish and/or electronically submit an adequate training program in safety procedures in the event of a release or threatened release of a hazardous material. *Verify agricultural handler exemption HSC 25507.1

Violations

Violation Date: 04/20/2022 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.95 25505(a)(4) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)(4)
Violation Notes:

Returned to compliance on 06/26/2022.

Violation Description:

Failure to provide initial and annual training to all employees in safety procedures in the event of a release or threatened release of a hazardous material or failure to document and maintain training records for a minimum of three years.

Violations

Violation Date: 04/20/2022 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 06/26/2022.

Violation Description:

Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.

Violations

Violation Date: 04/20/2022 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.95 25508(a)(3) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(3)
Violation Notes:

Returned to compliance on 06/26/2022.

Violation Description:

Failure to complete and electronically submit a site map with all required content.

Violations

Violation Date: 04/20/2022 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.95 25508(a)(3) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(3)
Violation Notes:

Returned to compliance on 06/26/2022.

Violation Description:

Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.

Violations

Violation Date: 04/20/2022 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.95 25505(c) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(c)
Violation Notes:

Returned to compliance on 06/26/2022.

Violation Description:

Failure to have a business plan readily available to personnel of the business or the unified program facility with responsibilities for emergency response or training.

Violations

Violation Date: 04/20/2022 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Notes:

Returned to compliance on 06/26/2022.

Violation Description:

Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.

Violations

Violation Date: 04/20/2022 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.95 25508(a)(3) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(3)
Violation Notes:

Returned to compliance on 06/26/2022.

Violation Description:

Failure to report program data electronically.

Enforcements

Enf Action Date: 04/20/2022 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Tulare County Environmental Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Evaluations

Eval Date: 04/20/2022
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Reed Van Houten, Owner CALEPA Complaint #COMP-53664 Tulare County Complaint #CO0014604 Facility will need to contact a used oil disposal contractor to pick up the used oil.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Affiliations

Affil Type Desc: Parent Corporation
Entity Name: VAN HOUTEN SHOP

Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 2112 NORTH J ST
City: TULARE
State: CA
Country:
Zip Code: 93274
Phone:

Affil Type Desc: Operator
Entity Name: REED VAN HOUTEN
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (559) 688-8497

Affil Type Desc: CUPA District
Entity Name: Tulare County Environmental Health
Entity Title:
Address: 5957 South Mooney Boulevard
City: Visalia
State: CA
Country:
Zip Code: 93277
Phone: (559) 624-7400

Affil Type Desc: Identification Signer
Entity Name: REED VAN HOUTEN
Entity Title: OWNER
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Legal Owner
Entity Name: REED VAN HOUTEN
Entity Title:
Address: 2112 NORTH J ST
City: TULARE
State: CA
Country: United States
Zip Code: 93274
Phone: (559) 250-0552

Affil Type Desc: Environmental Contact
Entity Name: REED VAN HOUTEN
Entity Title:
Address: 2112 NORTH J ST
City: TULARE
State: CA
Country:
Zip Code: 93274
Phone:

Affil Type Desc: Property Owner

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Entity Name: JOHN D. LEWIS
Entity Title:
Address: 23611 ROAD 200
City: LINDSAY
State: CA
Country: United States
Zip Code: 93247
Phone: (559) 562-1257

Affil Type Desc: Document Preparer
Entity Name: REED VAN HOUTEN
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Coordinates

Env Int Type Code:	HMBP	**Longitude:**	-119.353330
Program ID:	10604674	**Coord Name:**	
Latitude:	36.233092	**Ref Point Type Desc:**	Entrance point of a facility or station

4	1 of1	ESE	0.03 / 178.69	292.68 / 1	CENTRAL CALIFORNIA IMPLEMENT CO DBA TULARE POLARIS 1730 N J ST TULARE CA 93274-1311	RCRA NON GEN

EPA Handler ID: CAL000362776
Gen Status Universe: No Report
Contact Name: RYAN HULSEY
Contact Address: 1730 N J ST , , TULARE , CA, 93274 ,
Contact Phone No and Ext: 559-685-9144
Contact Email: RYAN@CENCALIMPLEMENT.COM
Contact Country:
County Name: TULARE
EPA Region: 09
Land Type:
Receive Date: 20110413
Location Latitude: 36.229759
Location Longitude: -119.352979

Violation/Evaluation Summary

Note: NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No

Used Oil Market Burner: No
Used Oil Spec Marketer: No

Hazardous Waste Handler Details

Sequence No: 1
Receive Date: 20110413
Handler Name: CENTRAL CALIFORNIA IMPLEMENT CO DBA TULARE POLARIS
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Owner
Type: Other
Name: WILLIAM LONGAN
Date Became Current:
Date Ended Current:
Phone: 559-686-4747
Source Type: Implementer
Street No:
Street 1: 1480 W INYO AVE
Street 2:
City: TULARE
State: CA
Country:
Zip Code: 93274-3402

Owner/Operator Ind: Current Operator
Type: Other
Name: RYAN HULSEY
Date Became Current:
Date Ended Current:
Phone: 559-685-9144
Source Type: Implementer
Street No:
Street 1: 1730 N J ST
Street 2:
City: TULARE
State: CA
Country:
Zip Code: 93274

5	1 of3	NE	0.04 / 199.72	292.71 / 1	2052 N J TULARE CA	AST

Total Capacity(Gal): 30000
CUPA: Tulare
Owner Name: MACK SYLVER-BULK PLANT
County: Tulare

5	2 of3	NE	0.04 / 199.72	292.71 / 1	Mack Sylver, Inc 2052 J Tulare CA 93275	CDO/CAO

Facility ID: 239071
Facility Type: Industrial
Status: Never Active
Status Date: 2/20/2013
Place Type: Facility
Place Sub Type:
Agency Type: Privately-Owned Business
No of Agencies: 1
Program: AGT
No of Programs: 1
WD ID: 5D547007N01
Reg Measure ID: 163671
Region 1: 5F
Order No:
NPDES No Cano:
Major Minor:
NPDES Type:
Reclamation:
Dredge Fill Fee:
A301H:
Effective Date:
Region: 5F
Agency Name: Mack Sylver Inc
Design Flow:
Complexity:
Pretreatment:
Fee Code:
SIC Code 1: 5171
SIC Desc 1: Petroleum Bulk Stations and Terminals
SIC Code 2:
SIC Desc 2:
SIC Code 3:
SIC Desc 3:
NAICS Code 1:
NAICS Desc 1:
NAICS Code 2:
NAICS Desc 2:
NAICS Code 3:
NAICS Desc 3:
No of Places: 1
Staff Assigned:
Place County: Tulare
Place Latitude:
Place Longitude:
Source of Facility: Reg Meas

Status 1:	Active
Facility Waste Type:	
Facility Waste Type 3:	
Facility Waste Type 4:	
Facility Waste Type 2:	
Title:	Enforcement - 5D547007N01
Description:	SITE ASSESSMENT, CLEANUP OF SOIL AND GROUNDWATER AT AGT FACILITY.
Threat to Water Quality:	
Reg Measure Type:	Unregulated
Program 1:	AGT
No of Programs 1:	1
Enforcement ID EID:	223468
Order Resolution No:	97-708
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date 1:	7/2/1997
Year Effective:	
Adoption Issuance Date:	
Achieve Date:	
Year Effective2:	
ACL Issuance Date:	
EPL Issuance Date:	
Latest Milestone Completion Da:	
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability Amount:	0
Project Amount:	0
Application Fee Amt Received:	
Liability Paid:	0
Project Completed:	0
Total Paid Completed Amount:	0
Agency Issuing Enf:	
Date of Oldest Violation Linke:	
Rank 1 Violations:	0
Rank 2 Violations:	0
Rank 3 Violations:	0
Unclassified Violations:	0
Atox Violations No:	0
Expiration Review Date:	
Termination Date:	
WDR Review Amend:	
WDR Review Revise Renew:	
WDR Review Resc Ind:	
WDR Review No Action Required:	
WDR Review Pending:	
WDR Review Planned:	
Status Enrollee:	No
Individual General:	I
No of Staff Assigned:	
Supervisor:	
No of Supervisors:	
Direction Voice:	Passive
Region 2:	5F
Assigned Staff:	
No of Assigned Staff:	
Supervisor2:	
No of Supervisors 1:	

Program Category:	TANKS	***Tot No of VIO Linked :***	0
Program Category 1:	TANKS	***Ctox Violations No:***	0
Late Report VIO No:	0	***Dfcnt Monitor VIO No:***	0
OEV VIO No:	0	***Dfcnt Report VIO No:***	0
Other Codes VIO No:	0	***Enfcmt Act VIO No:***	0
Permit Condit VIO No:	0	***Fees Violations No:***	0
Pretreatment VIO No:	0	***Groundwater VIO No:***	0
SSO Violations No:	0	***Hydro Mod VIO No:***	0
Surface Wtr VIO No:	0	***Effluent MMP Serious:***	0
SWPPP Violations No:	0	***Chronic MMP:***	0

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Total MMP VIO No:	0	**Report MMP Serious:**	0
Priority Violations:	0	**Economic Benefit:**	
BMP Violations No:	0	**Staff Cost:**	
Cat1 Violations No:	0	**Max Pot Liability:**	
Cat2 Violations No:	0	**Termination Date 1:**	
Reporting F to Notify VIO No:	0		
Unauthorized Discharge VIO No:	0		
Basin Plan Prohibition VIO:	0		

5	3 of3	NE	0.04 / 199.72	292.71 / 1	MACK SYLVER 2052 NORTH J ST. TULARE CA	AST SWRCB

Total Gals: 81000
Owner Name: MACK SYLVER, INC.
Data Source: SWRCB Aboveground Storage Tanks Listing 2007;SWRCB Aboveground Storage Tanks Listing 2006;SWRCB Aboveground Storage Tanks Listing 2005;SWRCB Aboveground Storage Tanks Listing 2003

6	1 of1	NE	0.05 / 241.48	292.71 / 1	MACK SYLVER INC TULARE CA	PFAS IND

Status:	Unknown	**Fac Fips Code:**	06107
Fac Indian Cntry Flg:	No	**Compliance Status:**	-
Fac Derived Huc:	18030012	**EPA Programs:**	-
Fac Derived Wbd:	180300071402	**Federal Facility:**	No
Fac Derived Cd113:	22	**Federal Agency:**	-
Fac Derived Cb2010:	061070021002051	**Fac Snc Flg:**	No
Fac Informal Count:	0	**AIR Flag:**	No
Last Informal Action:	-	**NPDES Flag:**	No
Formal Action Count:	0	**SDWIS Flag:**	No
Last Formal Action:	-	**RCRAFlag:**	No
Fac Total Penalties:	0	**TRI Flag:**	No
Fac Penalty Count:	-	**GHG Flag:**	No
Date Last Penalty:	-	**TRI IDs:**	-
Last Penalty Amt:	-	**TRI Releases Trnsfrs:**	-
Fac Qtrs With Nc:	-	**TRI on Site Releases:**	-
Programs With Snc:	0	**TRI off Site Trnsfrs:**	-
Fac Percent Minority:	66.117	**TRI Reporter:**	-
Fac Pop Den:	1747.1	**Fac Imp Water Flg:**	-
Count:	1	**Fac Major Flag:**	-
Fac County:	TULARE	**Fac Active Flag:**	-
State Other :		**Fac Inspection Count:**	0
Region:	09	**Date Last Inspection:**	-
Latitude:	36.233509	**Days Last Inspection:**	-
Longitude:	-119.353868		

Fac Derived Tribes: Santa Rosa Indian Community of the Santa Rosa Rancheria, California - 22 mile(s)
AIR IDs: -
CAA Permit Types: -
CAA NAICS: -
CAA SICS: -
NPDES IDs: -
CWA Permit Types: -
CWA NAICS: -
CWA SICS: -
RCRA IDs: -
RCRA Permit Types: -
RCRA NAICS: -
SDWA IDs: -
SDWA System Types: -
SDWA Compliance Status: -
SDWA Snc Flag: No
Fac Collection Meth: ADDRESS MATCHING-HOUSE NUMBER
EJSCREEN Flag Us: Yes
EJSCREEN Report: https://ejscreen.epa.gov/mapper/mobile/EJSCREEN_mobile.aspx?geometry=%7B%22x%22:-119.353868,%22y%

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

22:36.233509,%22spatialReference%22:%7B%22wkid%22:4326%7D%7D&unit=9035&areatype=&areaid=&basemap=streets&distance=1

ECHO Facility Report: https://echo.epa.gov/detailed-facility-report?fid=110038079398

Industry: Petroleum

7	1 of3	NE	0.05 / 244.65	292.71 / 1	MACK SYLVER, INC., TULARE 2052 NORTH J STREET TULARE CA	CLEANUP SITES

Global ID:	SL0610711757	***Site Facility Type:***	CLEANUP PROGRAM SITE
Site Fac Type (SRCH):	CLEANUP PROGRAM SITE	***Case Type (DL):***	Cleanup Program Site
Status (SRCH):	OPEN - INACTIVE	***RWQCB Region (DL):***	CENTRAL VALLEY RWQCB (REGION 5F)
Status (DL):	Open - Inactive	***Census Tract (SRCH):***	6107002303
Status Date (DL):	4/28/2016	***Latitude (DL):***	36.2325185078234
Cleanup Status:	OPEN - INACTIVE	***Longitude (DL):***	-119.353399329448

Site Facility Name (SRCH): MACK SYLVER, INC., TULARE
Address (SRCH): 2052 NORTH J STREET
City (SRCH): TULARE
Zip (SRCH):
County (SRCH): TULARE
Street No (DL): 2052
Street Name (DL): NORTH J STREET
City (DL): TULARE
Zip (DL):
County (DL): Tulare
State (DL): CA
Site Facility Name : MACK SYLVER, INC., TULARE
Address : 2052 NORTH J STREET
City : TULARE
Zip :
County : TULARE
Report Source: GeoTracker Search Results (SRCH); GeoTracker Sites Data Download (DL); GeoTracker Search Results Report

GeoTracker Sites Data Download - Site Details

RB Case No: 3752900
Local Case No:
Begin Date: 3/1/1994
Lead Agency: CENTRAL VALLEY RWQCB (REGION 5F)
Local Agency:
CUF Case: NO
CalEnvScreen Score:
EPA Region: 9
Qty Rlsd Gallons:
Potential COC: Gasoline, MTBE / TBA / Other Fuel Oxygenates, Diesel
How Discovered: * Other Means
Stop Method:
Stop Description:
Case Worker:
Military DoD Site: No
Leak Reported Dt: 1994-03-01 00:00:00
No Further Action Dt:
Potential Media of Concern: Aquifer used for drinking water supply, Soil
How Discovered Description: CONDUCTED ENVT SITE ASSESSMENT & SOIL TESTING
Calwater Watershed Name: South Valley Floor - Kaweah Delta (558.10)
DWR GW Subbasin Name: San Joaquin Valley - Kaweah (5-022.11)
Disadvantaged Community: Disadvantaged Community
Coordinate Source: Google Map Move
Discharge Cause: Spill
Discharge Source: Tank
Facility Project Sub Type:
Calenviroscreen 3 Score: 71-75%
Calenviroscreen 4 Score: 70-75%
File Location: Regional Board
Site History:

The Site is located at 2052 North J street in Tulare on approximately 1/2 acre. The Site is a bulk fuel storage and distribution station. Preliminary investigations in 1994 and 1996 indicated soils on the Site were impacted with significant concentrations of total petroleum hydrocarbons (TPH) compounds, including free floating product. Groundwater and soil remediation was initiated in 2003 and was ceased in 2005 and remains incomplete. The system was an SVE and removed additional free product. Eleven monitoring wells were constructed as a result of the initial investigations. A former domestic well that served a neighboring restaurants had to be abandoned due to impacts from TPH-diesel, ethylbenzene, and xylenes from the Site. The monitoring wells are on a quarterly monitoring schedule.

GeoTracker Sites Data Download - Status History

Status: Open - Inactive
Status Date: 2016-04-28 00:00:00

Status: Open - Case Begin Date
Status Date: 1994-03-01 00:00:00

Status: Open - Site Assessment
Status Date: 1994-03-01 00:00:00

GeoTracker Sites Data Download - Regulatory Contacts

Contact Type: Regional Board Caseworker - Primary Caseworker
Contact Name: KYLE T. WRIGHT
Organization Name: CENTRAL VALLEY RWQCB (REGION 5F)
Address: 1685 E. Street
City: FRESNO
Email: kyle.wright2@waterboards.ca.gov
Phone No: 5594455579

GeoTracker Search - Facilities (as of June 5, 2024)

Project Status:
Cuf Claim No:
CUF Priority Assign:
CUF Amount Paid:
Composting Method:
Facility Type:
WDR Place Type:
WDR File No:
WDR Order No:
File Location: REGIONAL BOARD
User Defined Beneficial Use:
Designated Beneficial Use: MUN, AGR, IND, PROC, REC_1, REC_2
Designated Beneficl Use Desc: Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply, Water Contact Recreation, Non-Contact Water Recreation
Project Oversight Agencies:
Report Link: https://geotracker.waterboards.ca.gov/profile_report?global_id=SL0610711757
Cleanup Status Detail: OPEN - INACTIVE AS OF 4/28/2016
Potential COC: DIESEL, GASOLINE, MTBE / TBA / OTHER FUEL OXYGENATES
Potential Media of Concern: AQUIFER USED FOR DRINKING WATER SUPPLY, SOIL
Groundwater Monitoring Freq:
DWR GW Sub Basin: San Joaquin Valley - Kaweah (5-022.11)
CalWater Watershed Name: South Valley Floor - Kaweah Delta (558.10)
Post Closure Site Management:
Future Land Use:
Cleanup Oversight Agencies: CENTRAL VALLEY RWQCB (REGION 5F) (LEAD) - CASE #: 3752900
CASE MANAGER: KYLE T. WRIGHT
Cleanup History Link: https://geotracker.waterboards.ca.gov/profile_report_include?global_id=SL0610711757&tabname=regulatoryhistory
Site History:

The Site is located at 2052 North J street in Tulare on approximately 1/2 acre. The Site is a bulk fuel storage and distribution station. Preliminary investigations in 1994 and 1996 indicated soils on the Site were impacted with significant concentrations of total petroleum hydrocarbons (TPH) compounds, including free floating product. Groundwater and soil remediation was initiated in 2003 and was ceased in 2005 and remains incomplete. The system was an SVE and removed additional free product. Eleven monitoring wells were constructed as a result of the initial investigations. A former domestic well that served a neighboring restaurants had to be abandoned due to impacts from TPH-diesel, ethylbenzene, and xylenes from the Site.

The monitoring wells are on a quarterly monitoring schedule.

GeoTracker Search - Cleanup Action Report (as of June 5, 2024)

Action Type: FREE PRODUCT REMOVAL
Begin Date: 6/1/1999
End Date: 10/24/2005
Phase: Liquid Waste
Contaminant Mass Removed:
Description: Removed gas & diesel from MWs.

Action Type: SOIL VAPOR EXTRACTION (SVE)
Begin Date: 1/15/2004
End Date: 10/24/2005
Phase: Other (See Description)
Contaminant Mass Removed:
Description:

GeoTracker Search - Regulatory Activities (as of June 5, 2024)

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 6/27/2018
Received Issue Date: 6/27/2018
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6363613&temptable=ENFORCEMENT
Title Description Comments:

Site Assessment Report response

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 6/18/2018
Received Issue Date: 6/18/2018
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6361711&temptable=ENFORCEMENT
Title Description Comments:

Oversight Cost Recovery Reimbursement Account

Action Type: Response Requested - Reports
Action: Site Assessment Report
Action Date: 5/8/2018
Received Issue Date: 5/8/2018
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5964280
Title Description Comments:

Site Assessment Report

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 3/30/2018
Received Issue Date: 3/30/2018
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6354555&temptable=ENFORCEMENT
Title Description Comments:

OVERDUE RESPONSE: Request for Site Assessment Report and Site Status Update

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 12/14/2016
Received Issue Date: 12/14/2016

Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6307035&temptable=ENFORCEMENT
Title Description Comments:

Action Type: Response Requested - Other
Action: Correspondence
Action Date: 12/7/2016
Received Issue Date: 12/7/2016
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5906727
Title Description Comments:

RE: BMW Investments, LLC

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 11/28/2016
Received Issue Date: 11/28/2016
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6314152&temptable=ENFORCEMENT
Title Description Comments:

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 11/28/2016
Received Issue Date: 11/28/2016
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6307056&temptable=ENFORCEMENT
Title Description Comments:

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 8/25/2016
Received Issue Date: 8/25/2016
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6299717&temptable=ENFORCEMENT
Title Description Comments:

Action Type: Response Requested - Workplans
Action: Preliminary Site Assessment Workplan
Action Date: 8/18/2016
Received Issue Date: 8/18/2016
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5900148
Title Description Comments:

Plan and Schedule for Groundwater Sampling

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 6/29/2016
Received Issue Date: 6/29/2016
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6295750&temptable=ENFORCEMENT
Title Description Comments:

Action Type: Response Requested - Other
Action: Other Report / Document
Action Date: 4/6/2011
Received Issue Date: 4/6/2011
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963042
Title Description Comments:

Site Maps

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 8/16/2008
Received Issue Date: 8/16/2008
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356355&temptable=ENFORCEMENT
Title Description Comments:

Review-Second Quarter 2005 Groundwater Monitoring and Remediation Status Report

Action Type: Response Requested - Other
Action: Other Report / Document
Action Date: 10/18/2007
Received Issue Date: 10/18/2007
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963295
Title Description Comments:

Case Screens

Action Type: Response Requested - Other
Action: Correspondence
Action Date: 11/16/2006
Received Issue Date: 11/16/2006
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963049
Title Description Comments:

Correspondence

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 8/29/2006
Received Issue Date: 8/29/2006
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356191&temptable=ENFORCEMENT
Title Description Comments:

Inspection Report

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 7/31/2006
Received Issue Date: 7/31/2006
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356743&temptable=ENFORCEMENT
Title Description Comments:

Oversight Cost Reimbursement Account

Action Type: Response Requested - Other
Action: Correspondence
Action Date: 6/13/2006
Received Issue Date: 6/13/2006
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963046
Title Description Comments:

Correspondence

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 5/25/2006
Received Issue Date: 5/25/2006
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356192&temptable=ENFORCEMENT
Title Description Comments:

Update on site

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 3/30/2006
Received Issue Date: 3/30/2006
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356193&temptable=ENFORCEMENT
Title Description Comments:

Property Owner

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 1/12/2006
Received Issue Date: 1/12/2006
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356348&temptable=ENFORCEMENT
Title Description Comments:

Groundwater Remediation Status

Action Type: Response Requested - Other
Action: Correspondence
Action Date: 12/19/2005
Received Issue Date: 12/19/2005
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5964613
Title Description Comments:

Groundwater Monitoring and Remedial Action Status Review Response

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 12/14/2005
Received Issue Date: 12/14/2005
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356350&temptable=ENFORCEMENT
Title Description Comments:

Groundwater Monitoring and Remedial Action Status Review

Action Type: Response Requested - Other
Action: Correspondence
Action Date: 11/23/2005
Received Issue Date: 11/23/2005
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5964611
Title Description Comments:

Cessation of Remediation Activities Response

Action Type: Response Requested - Reports
Action: Monitoring Report - Quarterly
Action Date: 11/23/2005
Received Issue Date: 11/23/2005
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5962807
Title Description Comments:

Third Quarter 2005 Groundwater Monitoring Report and Remediation Status Report

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 10/21/2005
Received Issue Date: 10/21/2005
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?

global_id=SL0610711757&enforcement_id=6356352&temptable=ENFORCEMENT

Title Description Comments:

Site Update

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 7/27/2005
Received Issue Date: 7/27/2005
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356356&temptable=ENFORCEMENT
Title Description Comments:

Annual Estimate for Cost Recovery Program

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 6/22/2005
Received Issue Date: 6/22/2005
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356360&temptable=ENFORCEMENT
Title Description Comments:

Electronic Submittal of Information

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 6/2/2005
Received Issue Date: 6/2/2005
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356362&temptable=ENFORCEMENT
Title Description Comments:

Review-First Quarter 2005 Groundwater Monitoring and Remediation Status Report

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 4/28/2005
Received Issue Date: 4/28/2005
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356372&temptable=ENFORCEMENT
Title Description Comments:

Tele-Con: Phase 1 Conversation

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 4/12/2005
Received Issue Date: 4/12/2005
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356374&temptable=ENFORCEMENT
Title Description Comments:

Review: Fourth Quarter 2004 Groundwater and Remediation Status Report

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 12/29/2004
Received Issue Date: 12/29/2004
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356377&temptable=ENFORCEMENT
Title Description Comments:

Review and Comment, Third Quarter 2004 Groundwater Monitoring Report

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 12/29/2004
Received Issue Date: 12/29/2004
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6357932&temptable=ENFORCEMENT
Title Description Comments:

Review and Comment, Third Quarter 2004 Groundwater Monitoring Report

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 8/26/2004
Received Issue Date: 8/26/2004
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356380&temptable=ENFORCEMENT
Title Description Comments:

Review of Second Quarter 2004 Groundwater Monitoring and Remediation Status Report

Action Type: Response Requested - Other
Action: Other Report / Document
Action Date: 6/21/2004
Received Issue Date: 6/21/2004
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5964608
Title Description Comments:

Remediation Status Update

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 6/16/2004
Received Issue Date: 6/16/2004
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356381&temptable=ENFORCEMENT
Title Description Comments:

Annual Estimate for Cost Recovery Program

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 5/18/2004
Received Issue Date: 5/18/2004
Doc Link:
Title Description Comments:

Quarterly Groundwater Monitoring and Remedial Action Progress Report Review

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 5/18/2004
Received Issue Date: 5/18/2004
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356508&temptable=ENFORCEMENT
Title Description Comments:

Quarterly Groundwater Monitoring and Remedial Action Progress Report Review

Action Type: Response Requested - Other
Action: Other Report / Document
Action Date: 4/1/2004
Received Issue Date: 4/1/2004
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5964605
Title Description Comments:

EO Reports

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 3/18/2004
Received Issue Date: 3/18/2004
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356509&temptable=ENFORCEMENT
Title Description Comments:

Quarterly Groundwater Monitoring and Remedial Action Progress Report Review

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 1/20/2004
Received Issue Date: 1/20/2004
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356510&temptable=ENFORCEMENT
Title Description Comments:

Inspection Report

Action Type: Cleanup Action
Action: Soil Vapor Extraction (SVE)
Action Date: 1/15/2004
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 12/16/2003
Received Issue Date: 12/16/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356511&temptable=ENFORCEMENT
Title Description Comments:

Review of Third Quarter 2003 Groundwater Report and Remediation Status Report

Action Type: Response Requested - Other
Action: Email Correspondence
Action Date: 10/31/2003
Received Issue Date: 10/31/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5964606
Title Description Comments:

Email Correspondence

Action Type: Response Requested - Other
Action: Other Report / Document
Action Date: 10/17/2003
Received Issue Date: 10/17/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5964607
Title Description Comments:

Test Results from E2C Remediation

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 10/15/2003
Received Issue Date: 10/15/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356512&temptable=ENFORCEMENT

Title Description Comments:

Inspection Report

Action Type: Response Requested - Other
Action: Other Report / Document
Action Date: 9/23/2003
Received Issue Date: 9/23/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963023
Title Description Comments:

Facilities Inspection Report

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 9/16/2003
Received Issue Date: 9/16/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356515&temptable=ENFORCEMENT
Title Description Comments:

Amendment to Remedial Action Plan

Action Type: Response Requested - Other
Action: Other Report / Document
Action Date: 9/15/2003
Received Issue Date: 9/15/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963282
Title Description Comments:

Amendment to Remedial Action Plan

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 9/5/2003
Received Issue Date: 9/5/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356516&temptable=ENFORCEMENT
Title Description Comments:

Implementation of Site Assessment and Remedial Plan

Action Type: Response Requested - Other
Action: Correspondence
Action Date: 9/3/2003
Received Issue Date: 9/3/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963286
Title Description Comments:

Settlement Agreement and Release

Action Type: Response Requested - Other
Action: Other Report / Document
Action Date: 8/25/2003
Received Issue Date: 8/25/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963284
Title Description Comments:

Settlement Agreement and Release

Action Type: Response Requested - Other
Action: Correspondence
Action Date: 8/13/2003
Received Issue Date: 8/13/2003

Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963287
Title Description Comments:

Annual Estimate for Cost Recovery Program

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 8/6/2003
Received Issue Date: 8/6/2003
Doc Link:
Title Description Comments:

Annual Estimate for Cost Recovery Program

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 8/6/2003
Received Issue Date: 8/6/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356514&temptable=ENFORCEMENT
Title Description Comments:

Annual Estimate for Cost Recovery Program

Action Type: Response Requested - Other
Action: Correspondence
Action Date: 6/9/2003
Received Issue Date: 6/9/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963291
Title Description Comments:

Conditional Proposal Agreement: Site Closure Needed

Action Type: Response Requested - Other
Action: Correspondence
Action Date: 5/23/2003
Received Issue Date: 5/23/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963292
Title Description Comments:

Correspondence

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 5/8/2003
Received Issue Date: 5/8/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356517&temptable=ENFORCEMENT
Title Description Comments:

Review of Revised Workplan

Action Type: Response Requested - Other
Action: Correspondence
Action Date: 2/10/2003
Received Issue Date: 2/10/2003
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963050
Title Description Comments:

Correspondence

Action Type: Response Requested - Other
Action: Other Report / Document
Action Date: 10/28/2002

Received Issue Date: 10/28/2002
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963045
Title Description Comments:

Judgement Approving First and Final Account and Report

Action Type: Response Requested - Other
Action: Other Report / Document
Action Date: 8/29/2002
Received Issue Date: 8/29/2002
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963289
Title Description Comments:

Summary of Costs for Site

Action Type: Response Requested - Other
Action: Correspondence
Action Date: 7/18/2002
Received Issue Date: 7/18/2002
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963290
Title Description Comments:

Settlement Agreement Letter

Action Type: Response Requested - Other
Action: Other Report / Document
Action Date: 6/24/2002
Received Issue Date: 6/24/2002
Doc Link: https://geotracker.waterboards.ca.gov/view_documents_all?global_id=SL0610711757&doc_id=5963298
Title Description Comments:

List of Reports/Events and Comments

Action Type: Cleanup Action
Action: Free Product Removal
Action Date: 6/1/1999
Received Issue Date:
Doc Link:
Title Description Comments:

Removed gas & diesel from MWs.

Action Type: Enforcement/Orders
Action: Clean-up and Abatement Order - #97-078
Action Date: 7/2/1997
Received Issue Date: 7/2/1997
Doc Link:
Title Description Comments:

Cleanup gas/diesel-impacted soil and groundwater.

Action Type: Leak Action
Action: Leak Discovery
Action Date: 3/1/1994
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Reported
Action Date: 3/1/1994
Received Issue Date:
Doc Link:

Title Description Comments:

GeoTracker Search - Documents (as of June 5, 2024)

Document Type: Site Documents ***Document Date:*** 6/27/2018
Type: STAFF LETTER ***Submitted:***
Submitted By: PAUL DOTSON (REGULATOR)
Title: SITE ASSESSMENT REPORT RESPONSE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6363613

Document Type: Site Documents ***Document Date:*** 6/18/2018
Type: STAFF LETTER ***Submitted:***
Submitted By: PAUL DOTSON (REGULATOR)
Title: OVERSIGHT COST RECOVERY REIMBURSEMENT ACCOUNT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6361711

Document Type: Site Documents ***Document Date:*** 5/8/2018
Type: SITE ASSESSMENT REPORT ***Submitted:***
Submitted By: PAUL DOTSON (REGULATOR)
Title: SITE ASSESSMENT REPORT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5964280

Document Type: Site Documents ***Document Date:*** 3/30/2018
Type: STAFF LETTER ***Submitted:***
Submitted By: PAUL DOTSON (REGULATOR)
Title: OVERDUE RESPONSE: REQUEST FOR SITE ASSESSMENT REPORT AND SITE STATUS UPDATE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6354555

Document Type: Site Documents ***Document Date:*** 12/14/2016
Type: STAFF LETTER ***Submitted:***
Submitted By: JAN ALFSON (REGULATOR)
Title: STAFF LETTER
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6307035

Document Type: Site Documents ***Document Date:*** 12/7/2016
Type: CORRESPONDENCE ***Submitted:***
Submitted By: RUSSELL WALLS (REGULATOR)
Title: RE: BMW INVESTMENTS, LLC
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5906727

Document Type: Site Documents ***Document Date:*** 11/28/2016
Type: STAFF LETTER ***Submitted:***
Submitted By: JAN ALFSON (REGULATOR)
Title: STAFF LETTER
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6314152

Document Type: Site Documents ***Document Date:*** 11/28/2016
Type: STAFF LETTER ***Submitted:***
Submitted By: JAN ALFSON (REGULATOR)
Title: STAFF LETTER
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6307056

Document Type: Site Documents ***Document Date:*** 8/25/2016
Type: STAFF LETTER ***Submitted:***
Submitted By: JAN ALFSON (REGULATOR)
Title: STAFF LETTER
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6299717

Document Type: Site Documents ***Document Date:*** 8/18/2016
Type: PRELIMINARY SITE ASSESSMENT WORKPLAN ***Submitted:***
Submitted By: RUSSELL WALLS (REGULATOR)
Title: PLAN AND SCHEDULE FOR GROUNDWATER SAMPLING
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5900148

Document Type: Site Documents ***Document Date:*** 6/29/2016
Type: STAFF LETTER ***Submitted:***

Submitted By: JAN ALFSON (REGULATOR)
Title: STAFF LETTER
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6295750

Document Type: Site Documents **Document Date:** 4/6/2011
Type: OTHER REPORT / DOCUMENT **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: SITE MAPS
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963042

Document Type: Site Documents **Document Date:** 8/16/2008
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: REVIEW-SECOND QUARTER 2005 GROUNDWATER MONITORING AND REMEDIATION STATUS REPORT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356355

Document Type: Site Documents **Document Date:** 10/18/2007
Type: OTHER REPORT / DOCUMENT **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: CASE SCREENS
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963295

Document Type: Site Documents **Document Date:** 11/16/2006
Type: CORRESPONDENCE **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: CORRESPONDENCE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963049

Document Type: Site Documents **Document Date:** 8/29/2006
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: INSPECTION REPORT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356191

Document Type: Site Documents **Document Date:** 7/31/2006
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: OVERSIGHT COST REIMBURSEMENT ACCOUNT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356743

Document Type: Site Documents **Document Date:** 6/13/2006
Type: CORRESPONDENCE **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: CORRESPONDENCE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963046

Document Type: Site Documents **Document Date:** 5/25/2006
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: UPDATE ON SITE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356192

Document Type: Site Documents **Document Date:** 3/30/2006
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: PROPERTY OWNER
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356193

Document Type: Site Documents **Document Date:** 1/12/2006
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: GROUNDWATER REMEDIATION STATUS
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356348

Document Type: Site Documents **Document Date:** 12/19/2005
Type: CORRESPONDENCE **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: GROUNDWATER MONITORING AND REMEDIAL ACTION STATUS REVIEW RESPONSE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5964613

Document Type: Site Documents **Document Date:** 12/14/2005
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: GROUNDWATER MONITORING AND REMEDIAL ACTION STATUS REVIEW
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356350

Document Type: Site Documents **Document Date:** 11/23/2005
Type: CORRESPONDENCE **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: CESSATION OF REMEDIATION ACTIVITIES RESPONSE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5964611

Document Type: Monitoring Reports **Document Date:** 11/23/2005
Type: MONITORING REPORT - QUARTERLY **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: THIRD QUARTER 2005 GROUNDWATER MONITORING REPORT AND REMEDIATION STATUS REPORT - THIRD QUARTER 2005 GROUNDWATER MONITORING REPORT AND REMEDIATION STATUS REPORT
Title Link: https://geotracker.waterboards.ca.gov/regulators/deliverable_documents/2870060801/OCT%5F31%5F2005%2Epdf

Document Type: Site Documents **Document Date:** 10/21/2005
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: SITE UPDATE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356352

Document Type: Site Documents **Document Date:** 7/27/2005
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: ANNUAL ESTIMATE FOR COST RECOVERY PROGRAM
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356356

Document Type: Site Documents **Document Date:** 6/22/2005
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: ELECTRONIC SUBMITTAL OF INFORMATION
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356360

Document Type: Site Documents **Document Date:** 6/2/2005
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: REVIEW-FIRST QUARTER 2005 GROUNDWATER MONITORING AND REMEDIATION STATUS REPORT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356362

Document Type: Site Documents **Document Date:** 4/28/2005
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: TELE-CON: PHASE 1 CONVERSATION
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356372

Document Type: Site Documents **Document Date:** 4/12/2005
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: REVIEW: FOURTH QUARTER 2004 GROUNDWATER AND REMEDIATION STATUS REPORT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356374

Document Type: Site Documents **Document Date:** 12/29/2004
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: REVIEW AND COMMENT, THIRD QUARTER 2004 GROUNDWATER MONITORING REPORT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356377

Document Type: Site Documents **Document Date:** 12/29/2004
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: REVIEW AND COMMENT, THIRD QUARTER 2004 GROUNDWATER MONITORING REPORT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6357932

Document Type: Site Documents **Document Date:** 8/26/2004
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: REVIEW OF SECOND QUARTER 2004 GROUNDWATER MONITORING AND REMEDIATION STATUS REPORT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356380

Document Type: Site Documents **Document Date:** 6/21/2004
Type: OTHER REPORT / DOCUMENT **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: REMEDIATION STATUS UPDATE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5964608

Document Type: Site Documents **Document Date:** 6/16/2004
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: ANNUAL ESTIMATE FOR COST RECOVERY PROGRAM
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356381

Document Type: Site Documents **Document Date:** 5/18/2004
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: QUARTERLY GROUNDWATER MONITORING AND REMEDIAL ACTION PROGRESS REPORT REVIEW
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356508

Document Type: Site Documents **Document Date:** 4/1/2004
Type: OTHER REPORT / DOCUMENT **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: EO REPORTS
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5964605

Document Type: Site Documents **Document Date:** 3/18/2004
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: QUARTERLY GROUNDWATER MONITORING AND REMEDIAL ACTION PROGRESS REPORT REVIEW
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356509

Document Type: Site Documents **Document Date:** 1/20/2004
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: INSPECTION REPORT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356510

Document Type: Site Documents **Document Date:** 12/16/2003
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: REVIEW OF THIRD QUARTER 2003 GROUNDWATER REPORT AND REMEDIATION STATUS REPORT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356511

Document Type: Site Documents **Document Date:** 10/31/2003
Type: EMAIL CORRESPONDENCE **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: EMAIL CORRESPONDENCE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5964606

Document Type: Site Documents **Document Date:** 10/17/2003
Type: OTHER REPORT / DOCUMENT **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: TEST RESULTS FROM E2C REMEDIATION
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5964607

Document Type: Site Documents **Document Date:** 10/15/2003
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: INSPECTION REPORT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356512

Document Type: Site Documents **Document Date:** 9/23/2003
Type: OTHER REPORT / DOCUMENT **Submitted:**

Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: FACILITIES INSPECTION REPORT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963023

Document Type: Site Documents **Document Date:** 9/16/2003
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: AMENDMENT TO REMEDIAL ACTION PLAN
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356515

Document Type: Site Documents **Document Date:** 9/15/2003
Type: OTHER REPORT / DOCUMENT **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: AMENDMENT TO REMEDIAL ACTION PLAN
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963282

Document Type: Site Documents **Document Date:** 9/5/2003
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: IMPLEMENTATION OF SITE ASSESSMENT AND REMEDIAL PLAN
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356516

Document Type: Site Documents **Document Date:** 9/3/2003
Type: CORRESPONDENCE **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: SETTLEMENT AGREEMENT AND RELEASE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963286

Document Type: Site Documents **Document Date:** 8/25/2003
Type: OTHER REPORT / DOCUMENT **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: SETTLEMENT AGREEMENT AND RELEASE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963284

Document Type: Site Documents **Document Date:** 8/13/2003
Type: CORRESPONDENCE **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: ANNUAL ESTIMATE FOR COST RECOVERY PROGRAM
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963287

Document Type: Site Documents **Document Date:** 8/6/2003
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: ANNUAL ESTIMATE FOR COST RECOVERY PROGRAM
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356514

Document Type: Site Documents **Document Date:** 6/9/2003
Type: CORRESPONDENCE **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: CONDITIONAL PROPOSAL AGREEMENT: SITE CLOSURE NEEDED
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963291

Document Type: Site Documents **Document Date:** 5/23/2003
Type: CORRESPONDENCE **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: CORRESPONDENCE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963292

Document Type: Site Documents **Document Date:** 5/8/2003
Type: STAFF LETTER **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: REVIEW OF REVISED WORKPLAN
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&enforcement_id=6356517

Document Type: Site Documents **Document Date:** 2/10/2003
Type: CORRESPONDENCE **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: CORRESPONDENCE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963050

Document Type: Site Documents **Document Date:** 10/28/2002
Type: OTHER REPORT / DOCUMENT **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: JUDGEMENT APPROVING FIRST AND FINAL ACCOUNT AND REPORT
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963045

Document Type: Site Documents **Document Date:** 8/29/2002
Type: OTHER REPORT / DOCUMENT **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: SUMMARY OF COSTS FOR SITE
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963289

Document Type: Site Documents **Document Date:** 7/18/2002
Type: CORRESPONDENCE **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: SETTLEMENT AGREEMENT LETTER
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963290

Document Type: Site Documents **Document Date:** 6/24/2002
Type: OTHER REPORT / DOCUMENT **Submitted:**
Submitted By: JASMIN MOSTAFA (REGULATOR)
Title: LIST OF REPORTS/EVENTS AND COMMENTS
Title Link: https://geotracker.waterboards.ca.gov/view_documents?global_id=SL0610711757&document_id=5963298

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status: Open - Inactive
Date: 4/28/2016

Status: Open - Site Assessment
Date: 3/1/1994

Status: Open - Case Begin Date
Date: 3/1/1994

7	2 of3	NE	0.05 / 244.65	292.71 / 1	MACK SYLVER-BULK PLANT 2052 N J ST TULARE CA 93274	CUPA TULARE

Facility ID: FA1000679 **GIS Latitude:** 36.232546016
CERS ID: 10605316 **GIS Longitude:** -119.353153537
Phone: 5596866353 **APN:** 164-060-003
Second Phone: 5596866353

Details

Gen Prog Record ID: PR1351685 **Comment:** TULARE CITY
Haz Emerg Record ID: EM0000526 **Current Status:** Inactive, non-billable
PE: 2314 **Billing Status:** Inactive, non-billable
Description: TANK FA >10,001 AND <100,000 GAL

Gen Prog Record ID: PR1358560 **Comment:** TULARE CITY
Haz Emerg Record ID: EM0000526 **Current Status:** Inactive, non-billable
PE: 2277 **Billing Status:** Inactive, non-billable
Description: CUPA OVERSIGHT CA SURCHARGE

Gen Prog Record ID: PR1348592 **Comment:** TULARE CITY
Haz Emerg Record ID: EM0000526 **Current Status:** Inactive, non-billable
PE: 2223 **Billing Status:** Inactive, non-billable
Description: Haz Mat - < 6 Reportable Quantities of Chem

7	3 of3	NE	0.05 / 244.65	292.71 / 1	MACK SYLVER INC 2052 NORTH J ST TULARE CA 93274	EMISSIONS

2005 Criteria Data

Facility ID:	451	***CERR Code:***	
Facility SIC Code:	5171	***TOGT:***	1.49929358808087078253700038654638236275
CO:	54	***ROGT:***	1.16932446254730239
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2005 Toxic Data

Facility ID:	451	***COID:***	TUL
Facility SIC Code:	5171	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2006 Criteria Data

Facility ID:	451	***CERR Code:***	
Facility SIC Code:	5171	***TOGT:***	.36855713077149115508518065523827925642571
CO:	54	***ROGT:***	.32216430068969727
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2006 Toxic Data

Facility ID:	451	***COID:***	TUL
Facility SIC Code:	5171	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2007 Criteria Data

Facility ID:	451	***CERR Code:***	
Facility SIC Code:	5171	***TOGT:***	.34435849956436743739304852252126767195 63
CO:	54	***ROGT:***	.29863149057388304
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2007 Toxic Data

Facility ID:	451	***COID:***	TUL
Facility SIC Code:	5171	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2008 Criteria Data

Facility ID:	451	***CERR Code:***	
Facility SIC Code:	5171	***TOGT:***	.31312102561159246056773178828006144670 27
CO:	54	***ROGT:***	.26964878739357
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2008 Toxic Data

Facility ID:	451	***COID:***	TUL
Facility SIC Code:	5171	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2009 Criteria Data

Facility ID:	451	***CERR Code:***	
Facility SIC Code:	5171	***TOGT:***	.31054345102355106538255339817309423719 71
CO:	54	***ROGT:***	.26599716065406797
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2009 Toxic Data

Facility ID:	451	***COID:***	TUL
Facility SIC Code:	5171	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2010 Toxic Data

Facility ID:	451	***COID:***	TUL
Facility SIC Code:	5171	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2011 Criteria Data

Facility ID:	451	***CERR Code:***	
Facility SIC Code:	5171	***TOGT:***	.26544907225607980805262956224567904505 33
CO:	54	***ROGT:***	.25906927729606614
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2011 Toxic Data

Facility ID:	451	***COID:***	TUL
Facility SIC Code:	5171	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2012 Criteria Data

Facility ID:	451	***CERR Code:***	
Facility SIC Code:	5171	***TOGT:***	.35831548741696757854881827749453870020 62
CO:	54	***ROGT:***	.33909487320423134
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2012 Toxic Data

Facility ID:	451	***COID:***	TUL
Facility SIC Code:	5171	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2013 Criteria Data

Facility ID:	451	***CERR Code:***	
Facility SIC Code:	5171	***TOGT:***	.35749000800564971751412429378531073446 33
CO:	54	***ROGT:***	.339087123
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2013 Toxic Data

Facility ID:	451	***COID:***	TUL
Facility SIC Code:	5171	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2014 Criteria Data

Facility ID:	451	***CERR Code:***	
Facility SIC Code:	5171	***TOGT:***	.26534158583378395779096045197740112994 35
CO:	54	***ROGT:***	.259837139914035877
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2014 Toxic Data

Facility ID:	451	***COID:***	TUL
Facility SIC Code:	5171	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2015 Criteria Data

Facility ID:	451	***CERR Code:***	
Facility SIC Code:	5171	***TOGT:***	.26538444251977401129943502824858757062 15
CO:	54	***ROGT:***	.259874838
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2015 Toxic Data

Facility ID:	451	***COID:***	TUL
Facility SIC Code:	5171	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2016 Criteria Data

Facility ID:	451	***CERR CODE:***	
Facility SIC Code:	5171	***TOGT:***	0
CO:	54	***ROGT:***	0
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2016 Toxic Data

Facility ID:	451	***TS:***	
Facility SIC Code:	5171	***HRA:***	
CERR CODE:		***CH Index:***	
COID:	TUL	***AH Index:***	
CO:	54	***Air Basin:***	SJV
DISN:	SAN JOAQUIN VALLEY APCD	***District:***	SJU
CHAPIS:			

2017 Criteria Data

Facility ID:	451	***CERR Code:***	
Facility SIC Code:	5171	***TOGT:***	0
CO:	54	***ROGT:***	0
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2017 Toxic Data

Facility ID:	451	***COID:***	TUL
Facility SIC Code:	5171	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2018 Criteria Data

Facility ID:	451	***CERR Code:***	
Facility SIC Code:	5171	***TOGT:***	0
CO:	54	***ROGT:***	0
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	

COID: TUL
DISN: SAN JOAQUIN VALLEY APCD
CHAPIS:
SOXT:
PMT:
PM10T:

2018 Toxic Data

Facility ID: 451
Facility SIC Code: 5171
CO: 54
Air Basin: SJV
District: SJU
TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
COID: TUL
DISN: SAN JOAQUIN VALLEY APCD
CHAPIS:
CERR Code:

2019 Criteria Data

CO: 54
Air Basin: SJV
Facility ID: 451
District: SJU
Facility SIC Code: 5171
CO ID: TUL
DISN: SAN JOAQUIN VALLEY APCD
PM10T:
TOGT: 0
PMT:
CHAPIS:
CERR Code:
ROGT: 0
COT:
NOXT:
SOXT:

2019 Toxic Data

CO: 54
Air Basin: SJV
Faccility ID: 451
District: SJU
Facility SIC Code: 5171
COID: TUL
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
DISN: SAN JOAQUIN VALLEY APCD
CHAPIS:
CERR Code:
TS:
Health Risk Asmt:

2020 Criteria Data

CO: 54
Air Basin: SJV
Facility ID: 451
District: SJU
Facility SIC Code: 5171
CO ID: TUL
DISN: SAN JOAQUIN VALLEY APCD
TOGT: 0
PMT:
PM10T:
CHAPIS:
CERR Code:
ROGT: 0
COT:
NOXT:
SOXT:

2020 Toxic Data

CO: 54
Air Basin: SJV
Facility ID: 451
District: SJU
Facility SIC Code: 5171
COID: TUL
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
DISN: SAN JOAQUIN VALLEY APCD
CHAPIS:
CHERR Code:
TS:
Health Risk Asmt:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

2021 Toxic Data

Co:	54	***DISN:***	SAN JOAQUIN VALLEY APCD
Air Basin:	SJV	***CHAPIS:***	
Facility ID:	451	***Cerr Code:***	
District:	SJU	***TS:***	
Facility SIC Code:	5171	***Health Risk Asmt:***	
COID:	TUL		
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2021 Criteria Data

Co:	54	***CHAPIS:***	
Air Basin:	SJV	***Cerr Code:***	
Facility ID:	451	***ROGT:***	0
District:	SJU	***COT:***	
Facility SIC Code:	5171	***NOXT:***	
CO ID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD		
TOGT:	0		
PMT:			
PM10T:			

8	1 of1	ENE	0.06 / 311.38	292.68 / 1	E2C REMEDIATION 2052 NORTH 'J' ST TULARE CA 93274	EMISSIONS

2004 Criteria Data

Facility ID:	4221	***CERR Code:***	
Facility SIC Code:	4959	***TOGT:***	11.62024740764384180790960451977401129944
CO:	54	***ROGT:***	10.2839189557648
Air Basin:	SJV	***COT:***	.21273
District:	SJU	***NOXT:***	2.5325
COID:	TUL	***SOXT:***	.007217625
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	.02004895833333333333333333333333333333333
CHAPIS:		***PM10T:***	.019247

2004 Toxic Data

Facility ID:	4221	***COID:***	TUL
Facility SIC Code:	4959	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2005 Criteria Data

Facility ID:	4221	***CERR Code:***	
Facility SIC Code:	4959	***TOGT:***	11.62024740764384180790960451977401129944
CO:	54	***ROGT:***	10.2839189557648

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Air Basin:	SJV	**COT:**	.21273
District:	SJU	**NOXT:**	2.5325
COID:	TUL	**SOXT:**	.007217625
DISN:	SAN JOAQUIN VALLEY APCD	**PMT:**	.020048958333333333333333333333333333333333
CHAPIS:	Y	**PM10T:**	.019247

2005 Toxic Data

Facility ID:	4221	**COID:**	TUL
Facility SIC Code:	4959	**DISN:**	SAN JOAQUIN VALLEY APCD
CO:	54	**CHAPIS:**	Y
Air Basin:	SJV	**CERR Code:**	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2006 Criteria Data

Facility ID:	4221	**CERR Code:**	
Facility SIC Code:	4959	**TOGT:**	11.62024740764384180790960451977401129944
CO:	54	**ROGT:**	10.2839189557648
Air Basin:	SJV	**COT:**	.21273
District:	SJU	**NOXT:**	2.5325
COID:	TUL	**SOXT:**	.007217625
DISN:	SAN JOAQUIN VALLEY APCD	**PMT:**	.020048958333333333333333333333333333333333
CHAPIS:	Y	**PM10T:**	.019247

2006 Toxic Data

Facility ID:	4221	**COID:**	TUL
Facility SIC Code:	4959	**DISN:**	SAN JOAQUIN VALLEY APCD
CO:	54	**CHAPIS:**	Y
Air Basin:	SJV	**CERR Code:**	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

9	*1 of3*	*ESE*	*0.06 / 332.32*	*292.52 / 1*	***BV W TAYLOR CEMENT CONST*** ***1788 NORTH J. STREET*** ***TULARE CA 93274***	***HHSS***

County:	Tulare
Tank Details Microfiche:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00023535.pdf

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9	*2 of3*	*ESE*	*0.06 / 332.32*	*292.52 / 1*	***BV.W. TAYLOR CEMENT CONST.*** ***1788 NORTH J. STREET*** ***TULARE CA***	***HIST TANK***

Owner Name:	B W TAYLOR	**No of Containers:**	1
Owner Street:	932 DICKRAN DR.	**County:**	TULARE
Owner City:	TULARE	**Facility State:**	CA
Owner State:	CA	**Facility Zip:**	93274
Owner Zip:	93274		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
9	3 of3	ESE	0.06 / 332.32	292.52 / 1	B W TAYLOR 1788 N J ST TULARE CA	UST SWEEPS

C C:	A54-000-191	**D Filename:**	SITE11A
BOE:	44-029541	**Page No:**	134
Comp:	191	**County:**	TULARE
Status:	ACTIVE	**State :**	CA
No of Tanks:	1	**Zip:**	93275
Jurisdict:	TULARE COUNTY	**Latitude:**	36.230499
Agency:	COUNTY OF TULARE - U.S.T.	**Longitude:**	-119.353061
Phone:		**Georesult:**	S5HPNTSC-A

Tank Details

Tank ID:	000001	**S Contain:**	
O Tank ID:	1	**Stg:**	P
SWRCB No:	54-000-000191-000001	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	04-20-88	**Content:**	UNKNOWN
Capac:	550	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK11

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
10	1 of1	SE	0.10 / 547.63	292.52 / 1	1628 N J STREET (MINI STORAGE), #11 TULARE CA 93274	CDL

Clue:	2000-03-015
Date:	3/2/2000
County:	TULARE
Lab Type:	L
Lab Type Description:	Illegal Drug Lab - location where an illegal drug lab was operated or drug lab equipment and/or materials were stored.

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
11	1 of2	WNW	0.13 / 677.62	288.80 / -3	HERITAGE SITE GAIL AVENUE/NORTHRIDGE STREET TULARE CA 93274	SCH

Estor/EPA ID:	54010008	**Acres:**	12 ACRES
Nat Priority List:	NO	**Supervisor:**	CHARLES RIDENOUR
Census Tract:	6107002100	**County:**	TULARE
Permit Renewl Lead:		**Latitude:**	36.232222
Project Manager:		**Longitude:**	-119.36

Site Code:	104197
Cleanup Status:	NO FURTHER ACTION AS OF 7/30/2001
Cleanup Oversight Agencies:	DTSC - LEAD AGENCY
Assembly District:	33
Senate District:	16
School District:	TULARE CITY ELEMENTARY SCHOOL DISTRICT
Office:	SANTA SUSANA FIELD LABORATORY BRANCH
Public Participatn Spclst:	
Special Program:	
Funding:	SCHOOL DISTRICT
Site Type:	SCHOOL
APN:	NONE SPECIFIED
Past Use that Caused Contam:	AGRICULTURAL - ROW CROPS
Potential Media Affected:	SOIL
Potential Contamin of Concern:	

CHLORDANE

DDE
DDT
LEAD
SILVER

SITE HISTORY:

Existing School playfields. Agricultural row crops and dairy use prior to school.

Status: NO FURTHER ACTION
Program Type: SCHOOL EVALUATION
CalEnviroScreen Score: 80-85%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=54010008

Completed Activities

Title: Preliminary Endangerment Assessment Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=54010008&doc_id=6006830
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Report
Date Completed: 8/1/2001
Comments:

Title: Phase 1
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 1/18/2001
Comments:

Title: PEA Workplan
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Workplan
Date Completed: 7/30/2001
Comments: PEA Workplan accepted

Title: Site Visit - Site Inspections/visit
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Inspections/Visit (Non LUR)
Date Completed: 1/11/2001
Comments:

Title: Environmental Oversight Agreement
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=54010008&enforcement_id=6006829
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Environmental Oversight Agreement
Date Completed: 3/29/2001
Comments:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
11	2 of2	WNW	0.13 / 677.62	288.80 / -3	HERITAGE SITE GAIL AVENUE/NORTHRIDGE STREET TULARE CA 93274	ENVIROSTOR

Estor/EPA ID:	54010008	**Assembly District:**	33
Site Code:	104197	**Senate District:**	16
Nat Priority List:	NO	**Permit Renewal Lead:**	
APN:	NONE SPECIFIED	**Public Partici Spclst:**	
Census Tract:	6107002100	**Project Manager:**	
Site Type:	SCHOOL	**County:**	TULARE
Address Description:	GAIL AVENUE/NORTHRIDGE STREET	**Latitude:**	36.232222
Office:	SANTA SUSANA FIELD LABORATORY BRANCH	**Longitude:**	-119.36
Special Program:		**Acres:**	12 ACRES
Funding:	SCHOOL DISTRICT	**Supervisor:**	CHARLES RIDENOUR

Cleanup Status: NO FURTHER ACTION AS OF 7/30/2001
Cleanup Oversight Agencies: DTSC - LEAD AGENCY
School District: TULARE CITY ELEMENTARY SCHOOL DISTRICT
Past Use that Caused Contam: AGRICULTURAL - ROW CROPS
Potential Media Affected: SOIL
Potential Contamin of Concern:

CHLORDANE
DDE
DDT
LEAD
SILVER

Site History:

Existing School playfields. Agricultural row crops and dairy use prior to school.

Status: NO FURTHER ACTION
Program Type: SCHOOL EVALUATION
CalEnviroScreen Score: 80-85%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=54010008

Completed Activities

Title: Preliminary Endangerment Assessment Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=54010008&doc_id=6006830
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Report
Date Completed: 8/1/2001
Comments:

Title: PEA Workplan
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Endangerment Assessment Workplan
Date Completed: 7/30/2001
Comments: PEA Workplan accepted

Title: Phase 1
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Phase 1
Date Completed: 1/18/2001

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Comments:

Title: Site Visit - Site Inspections/visit
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Inspections/Visit (Non LUR)
Date Completed: 1/11/2001
Comments:

Title: Environmental Oversight Agreement
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=54010008&enforcement_id=6006829
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Environmental Oversight Agreement
Date Completed: 3/29/2001
Comments:

12	1 of12	SE	0.14 / 760.50	292.52 / 1	J STREET MINI MART 1510 N. J ST TULARE CA 93274	DELISTED TNK

Delisted Storage Tanks

Facility ID: FA1059141
Latitude: 36.2276233483547
Longitude: -119.352145175428
Permitting Agency: TULARE COUNTY
County: Tulare
Original Source: UST
Record Date: 30-JAN-2017

12	2 of12	SE	0.14 / 760.50	292.52 / 1	KC'S MINI MART 1510 J ST N TULARE CA 93274	LUST

Global ID: T0610700386
Site Facility Type: LUST CLEANUP SITE
Site Fac Type (SRCH): LUST CLEANUP SITE
Status:
Status (SRCH): COMPLETED - CASE CLOSED
Status (DL): Completed - Case Closed
Status Date (DL): 12/13/1999
Cleanup Status: COMPLETED - CASE CLOSED
Site Facility Name (SRCH): KC'S MINI MART
Address (SRCH): 1510 J ST N
City (SRCH): TULARE
Zip (SRCH): 93274
County (SRCH): TULARE
Street No (DL): 1510
Street Name (DL): J ST N
City (DL): TULARE
Zip (DL): 93274
County (DL): Tulare
State (DL): CA
Business Name (DL): KC'S MINI MART
Site Facility Name: KC'S MINI MART
Address : 1510 J ST N
City : TULARE
Zip : 93274
County : TULARE
Report Source: GeoTracker Search Results (SRCH);GeoTracker Sites Data Download (DL);GeoTracker Search Results Report

Case Type (DL): LUST Cleanup Site
Oil Field (SRCH):
Oil Field Oper (SRCH):
Census Tract (SRCH): 6107002303
Latitude (DL): 36.227665
Longitude (DL): -119.352088
RWQCB Region (DL): CENTRAL VALLEY RWQCB (REGION 5F)

GeoTracker Sites Data Download - Site Details

CUF Case:	NO
Lead Agency:	TULARE COUNTY
Case Worker:	JOE
Local Agency:	TULARE COUNTY
RB Case No:	5T54000412
Local Case No:	
File Location:	
Potential COC:	Gasoline
Potential Media of Concern:	Under Investigation
Begin Date:	7/30/1997
How Discovered:	Other Means
How Discovered Description:	
Stop Method:	
Stop Description:	
Calwater Watershed Name:	South Valley Floor - Kaweah Delta (558.10)
DWR GW Subbasin Name:	San Joaquin Valley - Kaweah (5-022.11)
Disadvantaged Community:	
CalEnvScreen Score:	
Coordinate Source:	Google Geocode
Discharge Cause:	
Discharge Source:	Other
EPA Region:	9
Leak Reported Dt:	1997-08-04 00:00:00
Military DoD Site:	No
No Further Action Dt:	1999-12-13 00:00:00
Qty Rlsd Gallons:	
Facility Project Sub Type:	
Calenviroscreen 3 Score:	66-70%
Calenviroscreen 4 Score:	70-75%
Site History:	

GeoTracker Sites Data Download - Regulatory Contacts

Contact Type:	Local Agency Caseworker - Primary Caseworker
Contact Name:	JOEL MARTENS
Organization Name:	TULARE COUNTY
Address:	5957 So. Mooney Blvd
City:	Visalia
Email:	jmartens@tularehhsa.org
Phone No:	5596247419

GeoTracker Sites Data Download - Status History

Status:	Completed - Case Closed
Status Date:	12/13/1999
Status:	Open - Case Begin Date
Status Date:	7/30/1997

GeoTracker Search - Regulatory Profile (as of June 5, 2024)

Site Facility Name:	KC'S MINI MART
Site Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Address:	1510 J ST N
City:	TULARE
Zip:	93274
County:	TULARE
Report Link:	https://geotracker.waterboards.ca.gov/profile_report?global_id=T0610700386
Cleanup Status Detail:	COMPLETED - CASE CLOSED AS OF 12/13/1999
Project Status:	
Cleanup History Link:	https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0610700386&tabname=regulatoryhistory

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Potential COC: GASOLINE
Potential Media of Concern: UNDER INVESTIGATION
File Location:
User Defined Beneficial Use:
Designated Beneficial Use: MUN, AGR, IND, PROC, REC_1, REC_2
DWR GW Sub Basin: San Joaquin Valley - Kaweah (5-022.11)
Calwater Watershed Name: South Valley Floor - Kaweah Delta (558.10)
Post Closure Site Management:
Future Land Use:
Cleanup Oversight Agencies: TULARE COUNTY (LEAD)
CASE MANAGER: JOEL MARTENS
CENTRAL VALLEY RWQCB (REGION 5F) - CASE #: 5T54000412
CUF Claim No:
CUF Priority Assig:
CUF Amount Paid:
WDR Place Type:
WDR File No:
WDR Order No:
Project Oversight Agencies:
Facility Type:
Composting Method:
Grndwtr Monitoring Frequency:
Designated Beneficial Use Desc: Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply, Water Contact Recreation, Non-Contact Water Recreation
Site History:

No site history available

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status: Completed - Case Closed
Date : 12/13/1999

Status: Open - Case Begin Date
Date : 7/30/1997

GeoTracker Search - Regulatory Activities (as of June 5, 2024)

Action Type: Leak Action
Action: Leak Reported
Action Date: 8/4/1997
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Discovery
Action Date: 7/30/1997
Received Issue Date:
Doc Link:
Title Description Comments:

12	*3 of12*	*SE*	*0.14 / 760.50*	*292.52 / 1*	*K C MINI MART* *1510 N J ST.* *TULARE CA 93274*	*HHSS*

County: Tulare
Tank Details Microfiche: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002b79b.pdf

12	*4 of12*	*SE*	*0.14 / 760.50*	*292.52 / 1*	*KCS MINI MART* *1510 N. J ST.*	*HHSS*

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
					TULARE CA 93274	

County: Tulare
Tank Details Microfiche: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002b8b0.pdf

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12	5 of12	SE	0.14 / 760.50	292.52 / 1	J STREET MINI MART 1510 N J ST TULARE CA 93274	CUPA TULARE

Facility ID: FA1059141
CERS ID: 10610476
Phone: 5596851465
Second Phone: 5597070497
GIS Latitude: 36.227670552
GIS Longitude: -119.352100789
APN: 164-082-028

Details

Gen Prog Record ID: PR1358538
Haz Emerg Record ID: EM0004771
PE: 2277
Description: CUPA OVERSIGHT CA SURCHARGE
Comment: TULARE CITY
Current Status: Active, billable
Billing Status: Active, billable

Gen Prog Record ID: PR1357994
Haz Emerg Record ID: EM0004771
PE: 2223
Description: Haz Mat - < 6 Reportable Quantities of Chem
Comment: TULARE CITY
Current Status: Active, billable
Billing Status: Active, billable

12	6 of12	SE	0.14 / 760.50	292.52 / 1	J STREET MINI MART 1510 N J ST TULARE CA 93274	UST

Facility ID: FA1059141
CERS ID: 10610476
County: Tulare
Latitude: 36.2276705
Longitude: -119.3521007
CalEnviroScrn 4 Pct: 70-75%
Permitting Agency: Tulare County Environmental Health
Site Facility Type: PERMITTED UNDERGROUND STORAGE TANK (UST)
Note: Information related to facilities can be searched on Geo Tracker Website: https://geotracker.waterboards.ca.gov/search

Tank Details

Epa Region: 9
No. of Closed UST: 0
No. of Inuse UST:
No. of Oos UST: 0
Owner Type: Non-Government
Tank ID No.: TA1001168
Tank Status: Renewal Permit
Tank Type: Double Wall
Tank Alarms: Yes
Tank Ball Float: No
Tank Closure Date:
Tank Configuration: One in a Compartmented Unit
Tank Contents: Midgraded Unleaded
Tank Cp Impr Curr: No
Tank Cp Shutoff: No
Tank Installatn Dt: 3/18/2004 12:00:00 AM
Tank No of Compart: 3
Tank Pc Constructn: Steel
Tank Spill Bucket: Yes
Tribal Lands: No
Tank Operator Name: YASIR ALHUMIDI
Tank Operator Mail Address: 1510 NORTH J ST
Tank Operator Mail City: TULARE
Tank Operator Mail State: CA
Tank Operator Mail Zip: 93274
Tank Owner Name: YASIR ALHUMIDI
Tank Owner Mailing Address: 1510 NORTH J ST
Tank Owner Mailing City: TULARE
Tank Owner Mailing State: CA
Tank Owner Mailing Zip: 93274
Tank Capacity Gallons: 5000
Tank Piping Construction: Double Walled
Tank Piping Type: Pressure

Tank Pw Piping Construction: Fiberglass
Tank Sacrificial Anode: No

Tank Details

Epa Region: 9
No. of Closed UST: 0
No. of Inuse UST:
No. of Oos UST: 0
Owner Type: Non-Government
Tank ID No.: TA1001167
Tank Status: Renewal Permit
Tank Type: Double Wall
Tank Alarms: Yes
Tank Ball Float: No
Tank Operator Name: YASIR ALHUMIDI
Tank Operator Mail Address: 1510 NORTH J ST
Tank Operator Mail City: TULARE
Tank Operator Mail State: CA
Tank Operator Mail Zip: 93274
Tank Owner Name: YASIR ALHUMIDI
Tank Owner Mailing Address: 1510 NORTH J ST
Tank Owner Mailing City: TULARE
Tank Owner Mailing State: CA
Tank Owner Mailing Zip: 93274
Tank Capacity Gallons: 15000
Tank Piping Construction: Double Walled
Tank Piping Type: Pressure
Tank Pw Piping Construction: Fiberglass
Tank Sacrificial Anode: No

Tank Closure Date:
Tank Configuration: One in a Compartmented Unit
Tank Contents: Regular Unleaded
Tank Cp Impr Curr: No
Tank Cp Shutoff: No
Tank Installatn Dt: 3/18/2004 12:00:00 AM
Tank No of Compart: 3
Tank Pc Constructn: Steel
Tank Spill Bucket: Yes
Tribal Lands: No

Tank Details

Epa Region: 9
No. of Closed UST: 0
No. of Inuse UST:
No. of Oos UST: 0
Owner Type: Non-Government
Tank ID No.: TA1001169
Tank Status: Renewal Permit
Tank Type: Double Wall
Tank Alarms: Yes
Tank Ball Float: No
Tank Operator Name: YASIR ALHUMIDI
Tank Operator Mail Address: 1510 NORTH J ST
Tank Operator Mail City: TULARE
Tank Operator Mail State: CA
Tank Operator Mail Zip: 93274
Tank Owner Name: YASIR ALHUMIDI
Tank Owner Mailing Address: 1510 NORTH J ST
Tank Owner Mailing City: TULARE
Tank Owner Mailing State: CA
Tank Owner Mailing Zip: 93274
Tank Capacity Gallons: 5000
Tank Piping Construction: Double Walled
Tank Piping Type: Pressure
Tank Pw Piping Construction: Fiberglass
Tank Sacrificial Anode: No

Tank Closure Date:
Tank Configuration: One in a Compartmented Unit
Tank Contents: Diesel
Tank Cp Impr Curr: No
Tank Cp Shutoff: No
Tank Installatn Dt: 3/18/2004 12:00:00 AM
Tank No of Compart: 3
Tank Pc Constructn: Steel
Tank Spill Bucket: Yes
Tribal Lands: No

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2006 Criteria Data

Facility ID:	2348	***CERR Code:***	
Facility SIC Code:	5541	***TOGT:***	.0103849296811746387874555444018321234 76
CO:	54	***ROGT:***	.01033
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2006 Toxic Data

Facility ID:	2348	***COID:***	TUL
Facility SIC Code:	5541	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2007 Criteria Data

Facility ID:	2348	***CERR Code:***	
Facility SIC Code:	5541	***TOGT:***	.0103849296811746387874555444018321234 76
CO:	54	***ROGT:***	.01033
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2007 Toxic Data

Facility ID:	2348	***COID:***	TUL
Facility SIC Code:	5541	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2008 Criteria Data

Facility ID:	2348	***CERR Code:***	
Facility SIC Code:	5541	***TOGT:***	.0095418101388681046110026687619646136 9758
CO:	54	***ROGT:***	.00949
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2008 Toxic Data

Facility ID:	2348	***COID:***	TUL
Facility SIC Code:	5541	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2009 Criteria Data

Facility ID:	2348	***CERR Code:***	
Facility SIC Code:	5541	***TOGT:***	.00954181013886810461100266876196461368 9758
CO:	54	***ROGT:***	.00949
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2009 Toxic Data

Facility ID:	2348	***COID:***	TUL
Facility SIC Code:	5541	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2010 Toxic Data

Facility ID:	2348	***COID:***	TUL
Facility SIC Code:	5541	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2011 Criteria Data

Facility ID:	2348	***CERR Code:***	
Facility SIC Code:	5541	***TOGT:***	.00954181013886810461100266876196461368 9758
CO:	54	***ROGT:***	.00949
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2011 Toxic Data

Facility ID:	2348	***COID:***	TUL
Facility SIC Code:	5541	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2012 Criteria Data

Facility ID:	2348	***CERR Code:***	
Facility SIC Code:	5541	***TOGT:***	. 0095418101388681046110026687619646136897 58
CO:	54	***ROGT:***	.00949
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2012 Toxic Data

Facility ID:	2348	***COID:***	TUL
Facility SIC Code:	5541	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2013 Criteria Data

Facility ID:	2348	***CERR Code:***	
Facility SIC Code:	5541	***TOGT:***	.00949
CO:	54	***ROGT:***	.00949
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2013 Toxic Data

Facility ID:	2348	***COID:***	TUL
Facility SIC Code:	5541	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

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2005 Criteria Data

Facility ID:	2348	***CERR Code:***	
Facility SIC Code:	5541	***TOGT:***	.36347253884111235756094405406412432165 88
CO:	54	***ROGT:***	.36155
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2005 Toxic Data

Facility ID:	2348	***COID:***	TUL
Facility SIC Code:	5541	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2014 Criteria Data

Facility ID:	2348	***CERR Code:***	
Facility SIC Code:	5541	***TOGT:***	.1608555
CO:	54	***ROGT:***	.1608555
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2014 Toxic Data

Facility ID:	2348	***COID:***	TUL
Facility SIC Code:	5541	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2015 Criteria Data

Facility ID:	2348	***CERR Code:***	
Facility SIC Code:	5541	***TOGT:***	.1608555
CO:	54	***ROGT:***	.1608555
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2015 Toxic Data

Facility ID:	2348	***COID:***	TUL
Facility SIC Code:	5541	***DISN:***	SAN JOAQUIN VALLEY APCD

CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2016 Criteria Data

Facility ID:	2348	***CERR CODE:***	
Facility SIC Code:	5541	***TOGT:***	.1608555
CO:	54	***ROGT:***	.1608555
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2016 Toxic Data

Facility ID:	2348	***TS:***	
Facility SIC Code:	5541	***HRA:***	
CERR CODE:		***CH Index:***	
COID:	TUL	***AH Index:***	
CO:	54	***Air Basin:***	SJV
DISN:	SAN JOAQUIN VALLEY APCD	***District:***	SJU
CHAPIS:			

2017 Criteria Data

Facility ID:	2348	***CERR Code:***	
Facility SIC Code:	5541	***TOGT:***	.1107
CO:	54	***ROGT:***	.1107
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2017 Toxic Data

Facility ID:	2348	***COID:***	TUL
Facility SIC Code:	5541	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2018 Criteria Data

Facility ID:	2348	***CERR Code:***	
Facility SIC Code:	5541	***TOGT:***	.11183
CO:	54	***ROGT:***	.11183
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2018 Toxic Data

Facility ID: 2348
Facility SIC Code: 5541
CO: 54
Air Basin: SJV
District: SJU
TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
COID: TUL
DISN: SAN JOAQUIN VALLEY APCD
CHAPIS:
CERR Code:

2019 Criteria Data

CO: 54
Air Basin: SJV
Facility ID: 2348
District: SJU
Facility SIC Code: 5541
CO ID: TUL
DISN: SAN JOAQUIN VALLEY APCD
PM10T:
TOGT: .10891
PMT:
CHAPIS:
CERR Code:
ROGT: .10891
COT:
NOXT:
SOXT:

2019 Toxic Data

CO: 54
Air Basin: SJV
Faccility ID: 2348
District: SJU
Facility SIC Code: 5541
COID: TUL
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
DISN: SAN JOAQUIN VALLEY APCD
CHAPIS:
CERR Code:
TS:
Health Risk Asmt:

2020 Criteria Data

CO: 54
Air Basin: SJV
Facility ID: 2348
District: SJU
Facility SIC Code: 5541
CO ID: TUL
DISN: SAN JOAQUIN VALLEY APCD
TOGT: .10891
PMT:
PM10T:
CHAPIS:
CERR Code:
ROGT: .10891
COT:
NOXT:
SOXT:

2020 Toxic Data

CO: 54
Air Basin: SJV
Facility ID: 2348
District: SJU
Facility SIC Code: 5541
COID: TUL
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
DISN: SAN JOAQUIN VALLEY APCD
CHAPIS:
CHERR Code:
TS:
Health Risk Asmt:

2021 Toxic Data

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Co: 54
Air Basin: SJV
Facility ID: 2348
District: SJU
Facility SIC Code: 5541
COID: TUL
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
DISN: SAN JOAQUIN VALLEY APCD
CHAPIS:
Cerr Code:
TS:
Health Risk Asmt:

2021 Criteria Data

Co: 54
Air Basin: SJV
Facility ID: 2348
District: SJU
Facility SIC Code: 5541
CO ID: TUL
DISN: SAN JOAQUIN VALLEY APCD
TOGT: .1103
PMT:
PM10T:
CHAPIS:
Cerr Code:
ROGT: .1205
COT:
NOXT:
SOXT:

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Site ID: 359466
Latitude: 36.227665
Longitude: -119.352089

Regulated Programs

EI ID: 10610476
EI Description: Chemical Storage Facilities

EI ID: 10610476
EI Description: Underground Storage Tank

Violations

Violation Date: 05/31/2016
Violation Program: UST
Violation Source: CERS
Violation Division: Tulare County Environmental Health
Citation: HSC 6.7 25284.2 - California Health and Safety Code, Chapter 6.7, Section(s) 25284.2
Violation Notes:

Returned to compliance on 05/31/2016.

Violation Description:

Failure to test the spill bucket annually.

Violations

Violation Date: 05/31/2016
Violation Program: UST
Violation Source: CERS
Violation Division: Tulare County Environmental Health
Citation: 23 CCR 16 2638 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2638
Violation Notes:

Returned to compliance on 05/31/2016.

Violation Description:

Failure to test leak detection equipment as required every 12 months (VPH, sensor, LLD, ATG, etc.) and/or submit monitoring system certification to the

CUPA within 30 days of completion of the test

Violations

Violation Date: 06/06/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2715(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(i)
Violation Notes:

Returned to compliance on 06/06/2017.

Violation Description:

Failure to have a properly qualified service technician test leak detection equipment as required every 12 months (vapor, pressure, hydrostatic (VPH) system, sensors, line-leak detectors (LLD), automatic tank gauge (ATG), etc.).

Violations

Violation Date: 07/09/2018 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.7 25284.2 - California Health and Safety Code, Chapter 6.7, Section(s) 25284.2
Violation Notes:

Returned to compliance on 07/09/2018.

Violation Description:

Failure to test the spill bucket annually.

Violations

Violation Date: 06/06/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2637 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2637
Violation Notes:

Returned to compliance on 10/23/2017.

Violation Description:

Failure to conduct secondary containment testing, or one or more of the following requirements:
Perform the test within six months of installation and every 36 months thereafter.Use a procedure that demonstrates the system works as well as at installation.Use applicable manufacturer guidelines, industry codes, engineering standard, or professional engineer approval.Performed by a certified service technician or a licensed tank tester.

Violations

Violation Date: 06/06/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.7 25284(a)(3)(A) & (B); - California Health and Safety Code, Chapter 6.7, Section(s) 25284(a)(3)(A) & (B);
Violation Notes:

Returned to compliance on 10/23/2017.

Violation Description:

Failure to implement or maintain a written agreement between the UST permit holder and the operator (owner/operator agreement).

Violations

Violation Date: 06/06/2017 **Violation Source:** CERS
Violation Program: UST **Violation Division:** Tulare County Environmental Health
Citation: 23 CCR 16 2712(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(i)
Violation Notes:

Returned to compliance on 02/21/2018.

Violation Description:

Failure to have a UST Response Plan available on site.

Violations

Violation Date: 12/07/2022 **Violation Source:** CERS
Violation Program: UST **Violation Division:** Tulare County Environmental Health
Citation: 23 CCR 16 2715(c)(4) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(c)(4)
Violation Notes:

Returned to compliance on 03/08/2023. OBSERVATION: Owner/Operator did not maintain a copy of the "Facility Employee Training Certificate" on-site or off-site at a readily available location. CORRECTIVE ACTION: Maintain copies of the "Facility Employee Training Certificate" on-site or off-site at a readily available location.

Violation Description:

Failure to maintain a list of employees trained by the designated operator on-site or off-site at a readily available location, if approved by the UPA. For training that occurs on or after October 1, 2018, failure to maintain a copy of the "Facility Employee Training Certificate" on-site or off-site at a readily available location, if approved by the UPA.

Violations

Violation Date: 05/31/2016 **Violation Source:** CERS
Violation Program: UST **Violation Division:** Tulare County Environmental Health
Citation: HSC 6.7 25291 - California Health and Safety Code, Chapter 6.7, Section(s) 25291
Violation Notes:

Returned to compliance on 05/31/2016.

Violation Description:

Failure to maintain under-dispenser containment, sumps, and/or other secondary containment in good condition and/or free of debris/liquid.

Violations

Violation Date: 08/28/2023 **Violation Source:** CERS
Violation Program: UST **Violation Division:** Tulare County Environmental Health
Citation: 23 CCR 16 2641(a) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2641(a)
Violation Notes:

Returned to compliance on 08/28/2023. OBSERVATION: Owner/Operator failed to install, maintain, or position leak detection equipment so that it is capable of detecting a leak at the earliest possible opportunity. The liquid sensors in the 87 fill,87 stp, and 91 stp sitting on top of the tank and not at the low point in the sumps. CORRECTIVE ACTION: Install, maintain and position leak detection equipment so that it is capable of detecting a leak at the earliest possible opportunity. ***Corrected on site***

Violation Description:

Failure of leak detection equipment to be located such that equipment is capable of detecting a leak at the earliest possible opportunity.

Violations

Violation Date: 12/22/2020 **Violation Source:** CERS
Violation Program: UST **Violation Division:** Tulare County Environmental Health
Citation: 23 CCR 16 2712(b)(1)(F) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)(1)(F)

Violation Notes:

Returned to compliance on 12/22/2020. The secondary containment test was conducted late. It was conducted today.

Violation Description:

"Failure to conduct secondary containment testing, or one or more of the following requirements:

Perform the test of the secondary containment system upon installation, within six months of installation and every 36 months thereafter.

Perform the test of a secondary containment component within 30 days of a repair or discontinuing vacuum, pressure or hydrostatic monitoring.

Use a procedure that demonstrates the system works as well as at installation.
Use applicable manufacturer guidelines, industry codes, engineering standard, or professional engineer approval.

Performed by a certified service technician.

Maintain records of secondary containment testing for 36 months."

Violations

Violation Date: 12/07/2022 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2716(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2716(e)
Violation Notes:

Returned to compliance on 01/25/2023. OBSERVATION: Facility did not comply with one or more of the following DO inspection requirements: Conduct the DO visual inspection at least once every 30 days (June 2022, September 2022 and October 2022 were missing); The owner/operator signed and dated the Designated Underground Storage Tank Operator Visual Inspection Report within 72 hours of being provided a signed copy. Majority of the majority of the DO reports within the last year have not been signed and dated. CORRECTIVE ACTION: Ensure that DO is complying with all the requirements noted above. Review DO monthly reports, sign and date them. Submit Certification of Return to Compliance form once these have been corrected.

Violation Description:

For designated operator (DO) monthly inspections conducted before October 1, 2018, failure to comply with one or more of the following requirements:
Be performed by an ICC certified DO.
Inspect monthly alarm history report, check that alarms are documented and responded to appropriately, and attach a copy.
Inspect for the presence of liquid/debris in spill containers.
Inspect for the presence of liquid/debris in under dispenser containment (UDC) and ensure that the monitoring equipment is positioned correctly.
Inspect for liquid or debris in containment sumps where an alarm occurred with no service visit.
Check that all testing and maintenance has been completed and documented.
Verify that all facility employees have been trained in accordance with 23 CCR 2715(c).
For designated operator (DO) 30 day inspections conducted on and after October 1, 2018, failure to conduct the designated UST operator visual inspection at least once every 30 days.

Violations

Violation Date: 06/06/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34
Violation Notes:

Returned to compliance on 10/23/2017.

Violation Description:

Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.

Violations

Violation Date: 07/09/2018 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665

Violation Notes:

Returned to compliance on 07/09/2018. The 87, 91 and the diesel spill buckets failed the lake tests. Repair the 87, 91 and the diesel spill buckets. The 87,91 and the diesel spill buckets were repaired and re-tested. They passed the lake tests.

Violation Description:

Failure to comply with one or more of the following:

Failure to install or maintain a liquid-tight spill bucket.

Have a minimum capacity of five gallons.

Have a functional drain valve or other method for the removal of liquid from the spill bucket/spill container.

Be resistant to galvanic corrosion.

Violations

Violation Date: 06/23/2014 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2636(f)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2636(f)(2)
Violation Notes:

Returned to compliance on 06/23/2014.

Violation Description:

Failure of the pressurized piping to meet one or more of the following requirements: monitored at least hourly with the capability of detecting a release of 3.0 gallons per hour, and will restrict the flow of product through the piping or trigger an alarm when a release occurs.

Violations

Violation Date: 12/07/2022 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2712 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712
Violation Notes:

Returned to compliance on 03/08/2023. OBSERVATION: Owner/Operator did not comply with all operating permit requirements. The facility failed to obtain a permit from the CUPA for installation of the overfill prevention valves. CORRECTIVE ACTION: Comply with all operating permit requirements. Submit a permit for the installation of the overfill prevention valves and pay filing fee.

Violation Description:

Failure to comply with any of the applicable requirements of the permit issued for the operation of the UST system.

Violations

Violation Date: 12/16/2021 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2712(b)(1)(G) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2712(b)(1)(G)
Violation Notes:

Returned to compliance on 03/09/2023. Audible/Visual overfill alarms no longer meets the CA Water Boards overfill requirements according to LG 150-3. Obtain permit to install overfill prevention devices (flapper valves).

Violation Description:

Failure to comply with one or more of the following overfill prevention equipment requirements:
Alert the transfer operator when the tank is 90 percent full by restricting the flow into the tank or triggering an audible and visual alarm; or
Restrict delivery of flow to the tank at least 30 minutes before the tank overfills, provided the restriction occurs when the tank is filled to no more than 95 percent of capacity; and activate an audible alarm at least five minutes before the tank overfills; or
Provide positive shut-off of flow to the tank when the tank is filled to no more than 95 percent of capacity; or
Provide positive shut-off of flow to the tank so that none of the fittings located on the top of the tank are exposed to product due to overfilling.

Install/retrofit overfill prevention equipment that does not use flow restrictors on vent piping to meet overfill prevention equipment requirements when the overfill prevention equipment is installed, repaired, or replaced on and after October 1, 2018.

For USTs installed before October 1, 2018, perform an inspection by October 13, 2018 and every 36 months thereafter.

For USTs installed on and after October 1, 2018, perform an inspection at installation and every 36 months thereafter.

Inspected within 30 days after a repair to the overfill prevention equipment.

Inspected using an applicable manufacturer guidelines, industry codes, engineering standards, or a method approved by a professional engineer.

Inspected by a certified UST service technician.

Maintain records of overfill prevention equipment inspection for 36 months.

Violations

Violation Date: 12/07/2022 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2665(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665(b)
Violation Notes:

Returned to compliance on 03/08/2023. OBSERVATION: Owner/operator failed to submit a copy of the overfill prevention equipment inspection results on the "Overfill Prevention Equipment Inspection Report Form" to the UPA within 30 days after the inspection. According to Mr. Alhumidi the overfill prevention valves were installed a few months back. CORRECTIVE ACTION: Submit a copy of the overfill prevention equipment inspection results on the "Overfill Prevention Equipment Inspection Report Form" to the UPA within 30 days.

Violation Description:

"Failure to submit a copy of the overfill prevention equipment inspection results on the "Overfill Prevention Equipment Inspection Report Form" to the UPA within 30 days after the inspection.
"

Violations

Violation Date: 12/07/2022 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2644.1(a)(4) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2644.1(a)(4)
Violation Notes:

Returned to compliance on 03/08/2023. OBSERVATION: Owner/Operator did not notify the CUPA 48 hours prior to Overfill testing. CORRECTIVE ACTION: Ensure that the CUPA is notified 48 hours prior to testing.

Violation Description:

Failure to notify the UPA 48 hours prior to testing.

Violations

Violation Date: 12/07/2022 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.7 25284.2 - California Health and Safety Code, Chapter 6.7, Section(s) 25284.2
Violation Notes:

Returned to compliance on 12/07/2022. OBSERVATION: Owner/Operator failed to meet one or more of the following spill container requirements: did not perform tightness test every 12 months. The testing was last performed in December 2021, however, the Inspection Report from Inspector Jesus Gaona dated 12/16/2021 stated that the annual monitoring certification and spill container testing is due every July. CORRECTIVE ACTION: Have a certified technician complete the testing every year in July.

Violation Description:

"Failure to meet one or more of the following requirements:

Install or maintain a liquid-tight spill container.

Have a minimum capacity of five gallons.

Have a functional drain valve or other method for the removal of liquid from the spill container.

Be resistant to galvanic corrosion.

Perform a tightness test at installation, every 12 months thereafter, or within 30 days after a repair to the spill container.

Tested using applicable manufacturer guidelines, industry codes, engineering standards, or a method approved by a professional engineer.

Tested by a certified UST service technician.

Maintain records of spill containment testing for 36 months.

"

Violations

Violation Date: 12/07/2022 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2637.1(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2637.1(e)
Violation Notes:

Returned to compliance on 01/25/2023. OBSERVATION: Owner/Operator failed to submit the spill bucket testing results to UPA within 30 days of testing. CORRECTIVE ACTION: Submit spill bucket testing results from 2021.

Violation Description:

Failure to submit a copy of the spill containment test results on the "Spill Container Testing Report Form" to the UPA within 30 days after the test.

Violations

Violation Date: 08/28/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2716(e) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2716(e)
Violation Notes:

Returned to compliance on 12/28/2023. OBSERVATION: Facility did not comply with one or more of the following DO inspection requirements: Conduct the DO visual inspection at least once every 30 days; Performed by an ICC certified DO; Inspect monthly alarm history report, check that alarms are documented and responded to appropriately, and attach a copy; The owner/operator signed and dated the Designated Underground Storage Tank Operator Visual Inspection Report within 72 hours of being provided a signed copy. Missing alarm history tapes are missing for 9/15/22, 10/20/22, and 2/13/23. Owner operator signatures and dates of signature are missing for 11/18/22, 9/15/22, 10/20/22, 12/27/22, 2/13/23, 3/8/23, 4/17/23, 5/15/23, 6/6/23, and 7/18/23. Fuel alarms were not noted or explained by your designated operator for 3/2/23 (L3), 2/28/23 (L4), and 3/26/23 (L5). The 30 day inspection window was exceeded on 9/15/22 to 10/20/22, 11/18/22 to 12/27/22, 3/8/23 to 4/17/23, 6/6/23 to 7/18/23, and 7/18/23 to 8/24/23. [Truncated]

Violation Description:

For designated operator (DO) monthly inspections conducted before October 1, 2018, failure to comply with one or more of the following requirements:
Be performed by an ICC certified DO.
Inspect monthly alarm history report, check that alarms are documented and responded to appropriately, and attach a copy.
Inspect for the presence of liquid/debris in spill containers.
Inspect for the presence of liquid/debris in under dispenser containment (UDC) and ensure that the monitoring equipment is positioned correctly.
Inspect for liquid or debris in containment sumps where an alarm occurred with no service visit.
Check that all testing and maintenance has been completed and documented.
Verify that all facility employees have been trained in accordance with 23 CCR 2715(c).
For designated operator (DO) 30 day inspections conducted on and after October 1, 2018, failure to conduct the designated UST operator visual inspection at least once every 30 days.

Violations

Violation Date: 12/07/2022 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2715(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(f)
Violation Notes:

Returned to compliance on 12/07/2022. OBSERVATION: Annual monitoring system certification and/or leak detector testing, were last performed in December 2021, however, the Inspection Report from Inspector Jesus Gaona dated 12/16/2021 stated that the annual monitoring certification and spill container testing is due every July. CORRECTIVE ACTION: Ensure that the annual monitoring certification and spill container testing are completed every year in July.

Violation Description:

Failure to have a properly qualified service technician test leak detection equipment as required every 12 months (vapor, pressure, hydrostatic (VPH) system, sensors, line-leak detectors (LLD), automatic tank gauge (ATG), etc.).

Violations

Violation Date: 05/31/2016 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.75 25299.30-25299.34 - California Health and Safety Code, Chapter 6.75, Section(s) 25299.30-25299.34
Violation Notes:

Returned to compliance on 10/23/2017.

Violation Description:

Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.

Violations

Violation Date: 08/28/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.7 25290.1(c)(3),25290.2(c)(3) - California Health and Safety Code, Chapter 6.7, Section(s) 25290.1(c)(3), 25290.2(c)(3)
Violation Notes:

Returned to compliance on 08/28/2023. OBSERVATION: Owner/Operator failed to keep water out of the secondary containment. Liquid was found inside the diesel stp sump, 87 stp sump, and 91 fill sump. CORRECTIVE ACTION: Keep all secondary containment free of water. ***Corrected on site***

Violation Description:

Failure to keep water out of the secondary containment of UST systems installed on or after July 1, 2003.

Violations

Violation Date: 12/16/2021 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2715(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(f)
Violation Notes:

Returned to compliance on 12/16/2021. It was due in July 2021. It was conducted today. It will be due in July 2022.

Violation Description:

Failure to have a properly qualified service technician test leak detection equipment as required every 12 months (vapor, pressure, hydrostatic (VPH) system, sensors, line-leak detectors (LLD), automatic tank gauge (ATG), etc.).

Violations

Violation Date: 05/30/2017 ***Violation Source:*** CERS
Violation Program: HMRRP ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Notes:

Returned to compliance on 02/21/2018.

Violation Description:

Failure to complete and electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.

Violations

Violation Date: 05/31/2016 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.7 25284(a)(3) - California Health and Safety Code, Chapter 6.7, Section(s) 25284(a)(3)
Violation Notes:

Returned to compliance on 10/23/2017.

Violation Description:

Failure to submit, maintain, or implement an owner/operator written agreement.

Violations

Violation Date: 06/23/2014 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2715(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(b)
Violation Notes:

Returned to compliance on 06/23/2014.

Violation Description:

Failure to submit statement of UST compliance and/or Designated Operator current certification.

Violations

Violation Date: 08/28/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2715(a)(2) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(a)(2)
Violation Notes:

OBSERVATION: Owner/operator failed to submit the "Underground Storage Tank Statement of Understanding and Compliance Form" CORRECTIVE ACTION: Submit the "Underground Storage Tank Statement of Understanding and Compliance Form". The Underground Storage Tank Statement of Understanding and Compliance Form can be obtained at tularecountyeh.org.

Violation Description:

Failure to submit the "Underground Storage Tank Statement of Understanding and Compliance Form."

Violations

Violation Date: 12/16/2021 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.7 25292.2(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25292.2(a)
Violation Notes:

Returned to compliance on 01/25/2023.

Violation Description:

Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.

Violations

Violation Date: 12/07/2022 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.7 25292.2(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25292.2(a)
Violation Notes:

Returned to compliance on 01/26/2023. OBSERVATION: Financial responsibility documents have not been submitted to the CUPA. Current financial responsibility documents are required to be submitted annually. CORRECTIVE ACTION: Complete and submit a copy of the financial responsibility.

Violation Description:

Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.

Violations

Violation Date: 06/06/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2715(a) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(a)
Violation Notes:

Returned to compliance on 10/23/2017.

Violation Description:

Failure to notify the CUPA of the designated operator (DO) identification and/or change of the DO within 30 days.

Violations

Violation Date: 12/22/2020 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2665(b) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665(b)
Violation Notes:

Returned to compliance on 06/25/2021. The overfill inspection report was not signed by the service tech. Redo the overfill inspection.

Violation Description:

"Failure to submit a copy of the overfill prevention equipment inspection results on the "Overfill Prevention Equipment Inspection Report Form" to the UPA within 30 days after the inspection.
"

Violations

Violation Date: 07/15/2019 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.7 25292.2(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25292.2(a)
Violation Notes:

Returned to compliance on 07/15/2019.

Violation Description:

Failure to submit and maintain complete and current Certification of Financial Responsibility or other mechanism of financial assurance.

Violations

Violation Date: 12/07/2022 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2638(d) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2638(d)
Violation Notes:

Returned to compliance on 01/25/2023. OBSERVATION: Owner/Operator did not submit the Monitoring System Certification Form to the CUPA within 30 days of completion of the test. CORRECTIVE ACTION: Submit copy of the 2021 Monitoring System Certification to the CUPA.

Violation Description:

Failure to submit the "Monitoring System Certification Form" to the UPA within 30 days of completion of the test.

Violations

Violation Date: 07/09/2018 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2715(i) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2715(i)
Violation Notes:

Returned to compliance on 07/09/2018.

Violation Description:

Failure to have a properly qualified service technician test leak detection equipment as required every 12 months (vapor, pressure, hydrostatic (VPH) system, sensors, line-leak detectors (LLD), automatic tank gauge (ATG), etc.).

Violations

Violation Date: 05/31/2016 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2665 - California Code of Regulations, Title 23, Chapter 16, Section(s) 2665
Violation Notes:

Returned to compliance on 07/05/2016.

Violation Description:

Failure to comply with one or more of the following: failure to install a spill bucket, have a functional drain valve or other method for the removal of liquid from the spill bucket/spill container, and/or be resistant to galvanic corrosion.

Violations

Violation Date: 05/31/2016 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.7 25286(a) - California Health and Safety Code, Chapter 6.7, Section(s) 25286(a)
Violation Notes:

Returned to compliance on 02/21/2018.

Violation Description:

Failure to submit an complete and accurate application for a permit to operate an underground storage tank, or for renewal of the permit.

Violations

Violation Date: 08/28/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 16 2716(f) - California Code of Regulations, Title 23, Chapter 16, Section(s) 2716(f)
Violation Notes:

Returned to compliance on 12/28/2023. OBSERVATION: Facility did not maintain copies on-site, or off-site at a readily available location, of the "Designated Underground Storage Tank Operator Visual Inspection Report" and all attachments for 36 months. The monthly designated operator report for january 2023 is missing from your records book. CORRECTIVE ACTION: Submit copies of the "Designated Underground Storage Tank Operator Visual Inspection Report" and all attachments, for the last 12 months, and maintain copies of these monthly inspections on-site or at a readily available location, for 36 months.

Violation Description:

Failure to maintain on-site, or off-site at a readily available location if approved by the UPA, copies of Designated Operator inspection records as follows:

Designated operator monthly inspection records for inspections performed before October 1, 2018 must be kept for 12 months from the month of inspection.

For inspections performed on or after October 1, 2018, copies of the "Designated Underground Storage Tank Operator Visual Inspection Report" must be kept for 36 months from the month of inspection.

Violations

Violation Date: 06/06/2017 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: 23 CCR 6.7 25284, 25286 - California Code of Regulations, Title 23, Chapter 6.7, Section(s) 25284, 25286
Violation Notes:

Returned to compliance on 02/21/2018.

Violation Description:

Failure to submit a complete and accurate application for a permit to operate a UST, or for renewal of the permit.

Violations

Violation Date: 07/15/2019 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.7 25284.2 - California Health and Safety Code, Chapter 6.7, Section(s) 25284.2
Violation Notes:

Returned to compliance on 08/06/2019. The 91 spill bucket & the diesel spill bucket failed the lake test. 87,91 and diesel spill buckets do not hold 5 gallons of liquid. Replace all spill buckets with 5 gallon spill buckets.

Violation Description:

"Failure to meet one or more of the following requirements:

Install or maintain a liquid-tight spill container.

Have a minimum capacity of five gallons.

Have a functional drain valve or other method for the removal of liquid from the spill container.

Be resistant to galvanic corrosion.

Perform a tightness test at installation, every 12 months thereafter, or within 30 days after a repair to the spill container.

Tested using applicable manufacturer guidelines, industry codes, engineering standards, or a method approved by a professional engineer.

Tested by a certified UST service technician.

Maintain records of spill containment testing for 36 months.

"

Violations

Violation Date: 08/28/2023 ***Violation Source:*** CERS
Violation Program: UST ***Violation Division:*** Tulare County Environmental Health
Citation: HSC 6.7 25299(a)(9) - California Health and Safety Code, Chapter 6.7, Section(s) 25299(a)(9)
Violation Notes:

Returned to compliance on 08/28/2023. OBSERVATION: Owner/Operator tampered with and/or disabled leak detection equipment in a manner that would prevent the monitoring system from detecting and/or alerting the owner/operator of a leak. The liquid sensor in the diesel stp was hanging from the turbine - not on the tank top or at the low point in the sump. CORRECTIVE ACTION: Owner/Operator shall not disable or tamper with monitoring equipment. Repair/replace equipment so that it functions per manufacturer's specifications. Submit verification. ***Corrected on site***

Violation Description:

Leak detection equipment disabled or tampered with in a manner that would prevent the monitoring system from detecting and/or alerting the owner/operator of a leak.

Enforcements

Enf Action Date: 05/31/2016 ***Enf Action Program:*** UST
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Tulare County Environmental Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 12/16/2021 ***Enf Action Program:*** UST
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Tulare County Environmental Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 12/07/2022 ***Enf Action Program:*** UST
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Tulare County Environmental Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 06/23/2014 ***Enf Action Program:*** UST
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Tulare County Environmental Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 08/28/2023 ***Enf Action Program:*** UST
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Tulare County Environmental Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 06/06/2017 ***Enf Action Program:*** UST
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Tulare County Environmental Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 07/09/2018 ***Enf Action Program:*** UST
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Tulare County Environmental Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 12/22/2020 ***Enf Action Program:*** UST
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Tulare County Environmental Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 05/30/2017 ***Enf Action Program:*** HMRRP
Enf Action Type: Notice of Violation (Unified Program) ***Enf Action Source:*** CERS
Enf Action Division: Tulare County Environmental Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Enf Action Date: 07/15/2019
Enf Action Program: UST
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Source: CERS
Enf Action Division: Tulare County Environmental Health
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes:

Evaluations

Eval Date: 01/08/2018
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Eval Date: 10/23/2017
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Eval Date: 12/22/2020
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Saleh Shuabi, Operator David Martin from Franzen-Hill conducted the AMC on July 27, 2020. The AMC will be due in July 2021. The stickers were affixed to the monitoring equipment. The sumps were dry. The secondary containment test was also conducted today.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 08/28/2023
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Yasir Alhumidi - Operator Franzen Hill Lic# 304147 A Haz Junior Sinco ICC 5246152, VR A30660, VMI 2138; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 04/28/2015
Violations Found: No
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Eval Date: 12/07/2022
Violations Found: Yes

Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Ali Shuibi, Cashier Franzen Hill JUNIOR SINCO ICC # 5246152 EXP: 10/17/2024 VEEDER ROOT #A30660 EXP: 5/9/2023 VMI #2138 EXP: 5/5/2023 This inspection report was discussed with Ali Shuibi and emailed to Yasir Alhumidi for review and signature on 12/7/2022.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 06/06/2017
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Eval Date: 05/30/2017
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: HMRRP
Eval Source: CERS
Eval Notes:

Eval Date: 07/15/2019
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Saleh Shuaibi, Operator Mark Williams, ICC#8198890-UT, VR#B43562, VMI#4175 Franzen-Hill; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 07/09/2018
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Saleh Shuaibi, Operator; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 06/23/2014
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Eval Date: 02/28/2018
Violations Found: No
Eval General Type: Other/Unknown

Eval Type: Other, not routine, done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Eval Date: 05/31/2016
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Eval Date: 08/06/2019
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Eval Date: 12/16/2021
Violations Found: Yes
Eval General Type: Compliance Evaluation Inspection
Eval Type: Routine done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Saleh Shuabi, Operator Gary Rummerfield, Franzen-Hill; Note: data in [EVAL Notes] field for some records is truncated from the source.

Eval Date: 03/08/2023
Violations Found: No
Eval General Type: Other/Unknown
Eval Type: Other, not routine, done by local agency
Eval Division: Tulare County Environmental Health
Eval Program: UST
Eval Source: CERS
Eval Notes:

Yasir Ahmed, Owner Franzen Hill DAVID MARTIN ICC #5246124 EXP: 8/26/24 OPW Exp: 12/25/2024 The purpose of this site visit was to observe overfill testing of the overfill system. Refer to the testing report that will be sent by David Martin dated 3/8/2023. Flapper valves were observed to function properly. Per Martin, the flapper valves are set at an acceptable level. This inspection report was emailed to Yasir Ahmed for review and signature on 3/9/2023.; Note: data in [EVAL Notes] field for some records is truncated from the source.

Affiliations

Affil Type Desc: Legal Owner
Entity Name: YASIR ALHUMIDI
Entity Title:
Address: 1510 NORTH J ST
City: TULARE
State: CA
Country: United States
Zip Code: 93274
Phone: (559) 433-5589

Affil Type Desc: Parent Corporation
Entity Name: J STREET MINI MART
Entity Title:

Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Identification Signer
Entity Name: YASIR ALHUMIDI
Entity Title: OWNER
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: UST Property Owner Name
Entity Name: YASIR ALHUMIDI
Entity Title:
Address: 1510 NORTH J ST
City: TULARE
State: CA
Country:
Zip Code: 93274
Phone: (559) 685-1465

Affil Type Desc: UST Tank Owner
Entity Name: YASIR ALHUMIDI
Entity Title:
Address: 1510 NORTH J ST
City: TULARE
State: CA
Country:
Zip Code: 93274
Phone: (559) 685-1465

Affil Type Desc: UST Permit Applicant
Entity Name: YASIR ALHUMIDI
Entity Title: OWNER
Address:
City:
State:
Country:
Zip Code:
Phone: (559) 685-1465

Affil Type Desc: CUPA District
Entity Name: Tulare County Environmental Health
Entity Title:
Address: 5957 South Mooney Boulevard
City: Visalia
State: CA
Country:
Zip Code: 93277
Phone: (559) 624-7400

Affil Type Desc: Environmental Contact
Entity Name: YASIR ALHUMIDI
Entity Title:
Address: 1510 NORTH J ST
City: TULARE
State: CA
Country:
Zip Code: 93274
Phone:

Affil Type Desc: Operator
Entity Name: YASIR ALHUMIDI

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone: (559) 707-0497

Affil Type Desc: Document Preparer
Entity Name: YASIR ALHUMIDI
Entity Title:
Address:
City:
State:
Country:
Zip Code:
Phone:

Affil Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title:
Address: 1510 NORTH J ST
City: TULARE
State: CA
Country:
Zip Code: 93274
Phone:

Affil Type Desc: UST Tank Operator
Entity Name: YASIR ALHUMIDI
Entity Title:
Address: 1510 NORTH J ST
City: TULARE
State: CA
Country:
Zip Code: 93274
Phone: (559) 685-1465

Coordinates

Env Int Type Code:	HMBP	**Longitude:**	-119.352100
Program ID:	10610476	**Coord Name:**	
Latitude:	36.227671	**Ref Point Type Desc:**	Entrance point of a facility or station

---

12	10 of12	SE	0.14 / 760.50	292.52 / 1	KC'S MINI MART 1510 N. "J" ST. TULARE CA	HIST TANK

Owner Name:	KC'S MINI MART	**No of Containers:**	3
Owner Street:	1510 N. "J" ST.	**County:**	TULARE
Owner City:	TULARE	**Facility State:**	CA
Owner State:	CA	**Facility Zip:**	93274
Owner Zip:	93274		

12	11 of12	SE	0.14 / 760.50	292.52 / 1	K C MINI MART 1510 N J ST. TULARE CA	HIST TANK

Owner Name:	JAMRO, INC.	**No of Containers:**	3
Owner Street:	1149 S. KAWEAH	**County:**	TULARE
Owner City:	EXETER	**Facility State:**	CA
Owner State:	CA	**Facility Zip:**	93274
Owner Zip:	93221		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
12	12 of12	SE	0.14 / 760.50	292.52 / 1	KC S MINI MART 1510 N J ST TULARE CA	UST SWEEPS

C C:	A54-000-59141	**D Filename:**	SITE11A
BOE:	44-030316	**Page No:**	134
Comp:	59141	**County:**	TULARE
Status:	ACTIVE	**State :**	CA
No of Tanks:	3	**Zip:**	93274
Jurisdict:	TULARE COUNTY	**Latitude:**	36.227658
Agency:	COUNTY OF TULARE - U.S.T.	**Longitude:**	-119.352417
Phone:		**Georesult:**	S5HPNTSCZA

Tank Details

Tank ID:	000001	**S Contain:**	
O Tank ID:	3	**Stg:**	P
SWRCB No:	54-000-059141-000001	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	04-20-88	**Content:**	UNKNOWN
Capac:	10000	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK11

Tank Details

Tank ID:	000002	**S Contain:**	
O Tank ID:	2	**Stg:**	P
SWRCB No:	54-000-059141-000002	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	04-20-88	**Content:**	UNKNOWN
Capac:	10000	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK11

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
13	1 of1	ESE	0.15 / 811.08	292.34 / 1	LOIS EARLES 223 WEST LYNN AVENUE TULARE CA 93724	RCRA NON GEN

EPA Handler ID:	CAC003207081
Gen Status Universe:	No Report
Contact Name:	LOIS EARLES
Contact Address:	223 WEST LYNN AVENUE , , TULARE , CA, 93724 ,
Contact Phone No and Ext:	559-304-8484
Contact Email:	EEARLES@HOTMAIL.COM
Contact Country:	
County Name:	TULARE
EPA Region:	09
Land Type:	
Receive Date:	20221205
Location Latitude:	
Location Longitude:	

Violation/Evaluation Summary

Note: NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No

Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20221205
Handler Name:	LOIS EARLES
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	***Street No:***	
Type:	Other	***Street 1:***	223 WEST LYNN AVENUE
Name:	LOIS EARLES	***Street 2:***	
Date Became Current:		***City:***	TULARE
Date Ended Current:		***State:***	CA
Phone:	559-304-8484	***Country:***	
Source Type:	Implementer	***Zip Code:***	93724

Owner/Operator Ind:	Current Operator	***Street No:***	
Type:	Other	***Street 1:***	223 WEST LYNN AVENUE
Name:	LOIS EARLES	***Street 2:***	
Date Became Current:		***City:***	TULARE
Date Ended Current:		***State:***	CA
Phone:	559-304-8484	***Country:***	
Source Type:	Implementer	***Zip Code:***	93724

14	*1 of1*	*NE*	*0.15 / 816.14*	*292.64 / 1*	***MACK SYLVER-BULK PLANT*** ***2052 N. J ST*** ***TULARE CA 93274***	***DELISTED TNK***

Delisted Storage Tanks

Facility ID:	FA1000679	***County:***	Tulare
Latitude:	36.2339351	***Original Source:***	UST
Longitude:	-119.3518299	***Record Date:***	30-JAN-2017
Permitting Agency:	TULARE COUNTY		

15	*1 of1*	*E*	*0.16 / 842.29*	*292.63 / 1*	***CHESTER JACKSON*** ***232 W. SANDRA AVE.*** ***TULARE CA***	***HIST TANK***

Owner Name:	CHESTER JACKSON	***No of Containers:***	1
Owner Street:	232 W. SANDRA AVE.	***County:***	TULARE
Owner City:	TULARE	***Facility State:***	CA
Owner State:	CA	***Facility Zip:***	93274
Owner Zip:	93274		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
16	1 of2	E	0.16 / 858.93	292.63 / 1	CHESTER JACKSON 232 W. SANDRA AVE. TULARE CA 93274	HHSS

County: Tulare
Tank Details Microfiche: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000236ed.pdf

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
16	2 of2	E	0.16 / 858.93	292.63 / 1	CHESTER JACKSON 232 W SANDRA AVE TULARE CA	UST SWEEPS

C C:	A54-000-48529	**D Filename:**	SITE11A
BOE:		**Page No:**	141
Comp:	48529	**County:**	TULARE
Status:	ACTIVE	**State :**	CA
No of Tanks:	1	**Zip:**	93274
Jurisdict:	TULARE COUNTY	**Latitude:**	36.230707
Agency:	COUNTY OF TULARE - U.S.T.	**Longitude:**	-119.350764
Phone:		**Georesult:**	S5HPNTSCZA

Tank Details

Tank ID:	000001	**S Contain:**	
O Tank ID:	1	**Stg:**	P
SWRCB No:	54-000-048529-000001	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	04-20-88	**Content:**	UNKNOWN
Capac:	550	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK11

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
17	1 of9	SE	0.17 / 919.37	292.48 / 1	CROSCO MANUFACTURING 1478 J ST N TULARE CA 93274	LUST

Global ID:	T0610700242	**Case Type (DL):**	LUST Cleanup Site
Site Facility Type:	LUST CLEANUP SITE	**Oil Field (SRCH):**	
Site Fac Type (SRCH):	LUST CLEANUP SITE	**Oil Field Oper (SRCH):**	
Status:		**Census Tract (SRCH):**	6107002303
Status (SRCH):	COMPLETED - CASE CLOSED	**Latitude (DL):**	36.226898
Status (DL):	Completed - Case Closed	**Longitude (DL):**	-119.351884
Status Date (DL):	4/9/1996	**RWQCB Region (DL):**	CENTRAL VALLEY RWQCB (REGION 5F)
Cleanup Status:	COMPLETED - CASE CLOSED		

Site Facility Name (SRCH): CROSCO MANUFACTURING
Address (SRCH): 1478 J ST N
City (SRCH): TULARE
Zip (SRCH): 93274
County (SRCH): TULARE
Street No (DL): 1478
Street Name (DL): J ST N
City (DL): TULARE
Zip (DL): 93274
County (DL): Tulare
State (DL): CA
Business Name (DL): CROSCO MANUFACTURING
Site Facility Name: CROSCO MANUFACTURING
Address : 1478 J ST N
City : TULARE
Zip : 93274
County : TULARE
Report Source: GeoTracker Search Results (SRCH);GeoTracker Sites Data Download (DL);GeoTracker Search Results Report

GeoTracker Sites Data Download - Site Details

CUF Case:	YES
Lead Agency:	TULARE COUNTY
Case Worker:	JOE
Local Agency:	TULARE COUNTY
RB Case No:	5T54000244
Local Case No:	623
File Location:	
Potential COC:	Gasoline
Potential Media of Concern:	Soil
Begin Date:	7/1/1991
How Discovered:	Tank Closure
How Discovered Description:	
Stop Method:	
Stop Description:	
Calwater Watershed Name:	South Valley Floor - Kaweah Delta (558.10)
DWR GW Subbasin Name:	San Joaquin Valley - Kaweah (5-022.11)
Disadvantaged Community:	
CalEnvScreen Score:	
Coordinate Source:	Google Geocode
Discharge Cause:	Unknown
Discharge Source:	Other
EPA Region:	9
Leak Reported Dt:	1991-08-26 00:00:00
Military DoD Site:	No
No Further Action Dt:	1996-04-09 00:00:00
Qty Rlsd Gallons:	
Facility Project Sub Type:	
Calenviroscreen 3 Score:	66-70%
Calenviroscreen 4 Score:	70-75%
Site History:	

GeoTracker Sites Data Download - Regulatory Contacts

Contact Type:	Local Agency Caseworker - Primary Caseworker
Contact Name:	JOEL MARTENS
Organization Name:	TULARE COUNTY
Address:	5957 So. Mooney Blvd
City:	Visalia
Email:	jmartens@tularehhsa.org
Phone No:	5596247419

GeoTracker Sites Data Download - Status History

Status:	Completed - Case Closed
Status Date:	4/9/1996
Status:	Open - Site Assessment
Status Date:	4/18/1994
Status:	Open - Remediation
Status Date:	9/28/1993
Status:	Open - Site Assessment
Status Date:	3/4/1993
Status:	Open - Site Assessment
Status Date:	6/1/1992
Status:	Open - Site Assessment
Status Date:	8/22/1991
Status:	Open - Case Begin Date
Status Date:	7/1/1991

GeoTracker Search - Regulatory Profile (as of June 5, 2024)

Site Facility Name:	CROSCO MANUFACTURING
Site Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Address:	1478 J ST N
City:	TULARE
Zip:	93274
County:	TULARE
Report Link:	https://geotracker.waterboards.ca.gov/profile_report?global_id=T0610700242
Cleanup Status Detail:	COMPLETED - CASE CLOSED AS OF 4/9/1996
Project Status:	
Cleanup History Link:	https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0610700242&tabname=regulatoryhistory
Potential COC:	GASOLINE
Potential Media of Concern:	SOIL
File Location:	
User Defined Beneficial Use:	
Designated Beneficial Use:	MUN, AGR, IND, PROC, REC_1, REC_2
DWR GW Sub Basin:	San Joaquin Valley - Kaweah (5-022.11)
Calwater Watershed Name:	South Valley Floor - Kaweah Delta (558.10)
Post Closure Site Management:	
Future Land Use:	
Cleanup Oversight Agencies:	TULARE COUNTY (LEAD) - CASE #: 623 CASE MANAGER: JOEL MARTENS CENTRAL VALLEY RWQCB (REGION 5F) - CASE #: 5T54000244
CUF Claim No:	6585
CUF Priority Assig:	B
CUF Amount Paid:	$19,921
WDR Place Type:	
WDR File No:	
WDR Order No:	
Project Oversight Agencies:	
Facility Type:	
Composting Method:	
Grndwtr Monitoring Frequency:	
Designated Beneficial Use Desc:	Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply, Water Contact Recreation, Non-Contact Water Recreation
Site History:	

No site history available

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status:	Completed - Case Closed
Date :	4/9/1996
Status:	Open - Site Assessment
Date :	4/18/1994
Status:	Open - Remediation
Date :	9/28/1993
Status:	Open - Site Assessment
Date :	3/4/1993
Status:	Open - Site Assessment
Date :	6/1/1992
Status:	Open - Site Assessment
Date :	8/22/1991
Status:	Open - Case Begin Date
Date :	7/1/1991

GeoTracker Search - Regulatory Activities (as of June 5, 2024)

Action Type:	Enforcement/Orders

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Action: * Historical Enforcement
Action Date: 8/27/1991
Received Issue Date: 8/27/1991
Doc Link:
Title Description Comments:

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 8/27/1991
Received Issue Date: 8/27/1991
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Reported
Action Date: 8/26/1991
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Discovery
Action Date: 7/1/1991
Received Issue Date:
Doc Link:
Title Description Comments:

17	2 of9	SE	0.17 / 919.37	292.48 / 1	CROSCO MANUFACTURING 1478 NORTH J STREET TULARE CA 93274	HHSS

County: Tulare
Tank Details Microfiche: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000237e2.pdf

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17	3 of9	SE	0.17 / 919.37	292.48 / 1	KIRBY MANUFACTURING 1478 N J ST TULARE CA 93274-1308	CUPA TULARE

Facility ID: FA0001597
CERS ID: 10604740
Phone: 5596861571
Second Phone: 2097230778
GIS Latitude: 36.226903784
GIS Longitude: -119.351896837
APN: 164-090-003

Details

Gen Prog Record ID: PR0000817
Haz Emerg Record ID: EM0000461
PE: 2258
Description: HW - LARGE GENERATOR
Comment: TULARE CITY
Current Status: Inactive, non-billable
Billing Status: Inactive, non-billable

Gen Prog Record ID: PR0000816
Haz Emerg Record ID: EM0000461
PE: 2224
Description: Haz Mat 6 - 15 Reportable Quantities of Chem
Comment: TULARE CITY
Current Status: Active, billable
Billing Status: Active, billable

Gen Prog Record ID: PR1345967
Haz Emerg Record ID: EM0000461
PE: 2277
Description: CUPA OVERSIGHT CA SURCHARGE
Comment: TULARE CITY
Current Status: Active, billable
Billing Status: Active, billable

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
17	4 of9	SE	0.17 / 919.37	292.48 / 1	KIRBY MANUFACTURING INC. 1478 NORTH 'J' STREET TULARE CA 93274	EMISSIONS

2013 Criteria Data

Facility ID:	1016	CERR Code:	
Facility SIC Code:	3523	TOGT:	0
CO:	54	ROGT:	0
Air Basin:	SJV	COT:	
District:	SJU	NOXT:	
COID:	TUL	SOXT:	
DISN:	SAN JOAQUIN VALLEY APCD	PMT:	
CHAPIS:		PM10T:	

2013 Toxic Data

Facility ID:	1016	COID:	TUL
Facility SIC Code:	3523	DISN:	SAN JOAQUIN VALLEY APCD
CO:	54	CHAPIS:	
Air Basin:	SJV	CERR Code:	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

17	5 of9	SE	0.17 / 919.37	292.48 / 1	KIRBY MANUFACTURING INC. 1478 NORTH J ST TULARE CA 93274	EMISSIONS

2014 Criteria Data

Facility ID:	1016	CERR Code:	
Facility SIC Code:	3523	TOGT:	0
CO:	54	ROGT:	0
Air Basin:	SJV	COT:	
District:	SJU	NOXT:	
COID:	TUL	SOXT:	
DISN:	SAN JOAQUIN VALLEY APCD	PMT:	
CHAPIS:		PM10T:	

2014 Toxic Data

Facility ID:	1016	COID:	TUL
Facility SIC Code:	3523	DISN:	SAN JOAQUIN VALLEY APCD
CO:	54	CHAPIS:	
Air Basin:	SJV	CERR Code:	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2015 Criteria Data

Facility ID:	1016	CERR Code:	
Facility SIC Code:	3523	TOGT:	0
CO:	54	ROGT:	0
Air Basin:	SJV	COT:	

District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2015 Toxic Data

Facility ID:	1016	***COID:***	TUL
Facility SIC Code:	3523	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2016 Criteria Data

Facility ID:	1016	***CERR CODE:***	
Facility SIC Code:	3523	***TOGT:***	0
CO:	54	***ROGT:***	0
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2016 Toxic Data

Facility ID:	1016	***TS:***	
Facility SIC Code:	3523	***HRA:***	
CERR CODE:		***CH Index:***	
COID:	TUL	***AH Index:***	
CO:	54	***Air Basin:***	SJV
DISN:	SAN JOAQUIN VALLEY APCD	***District:***	SJU
CHAPIS:			

2017 Criteria Data

Facility ID:	1016	***CERR Code:***	
Facility SIC Code:	3523	***TOGT:***	0
CO:	54	***ROGT:***	0
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2017 Toxic Data

Facility ID:	1016	***COID:***	TUL
Facility SIC Code:	3523	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2018 Criteria Data

Facility ID:	1016	***CERR Code:***	
Facility SIC Code:	3523	***TOGT:***	0
CO:	54	***ROGT:***	0
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2018 Toxic Data

Facility ID:	1016	***COID:***	TUL
Facility SIC Code:	3523	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2019 Criteria Data

CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
Facility ID:	1016	***ROGT:***	0
District:	SJU	***COT:***	
Facility SIC Code:	3523	***NOXT:***	
CO ID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD		
PM10T:			
TOGT:	0		
PMT:			

2019 Toxic Data

CO:	54	***DISN:***	SAN JOAQUIN VALLEY APCD
Air Basin:	SJV	***CHAPIS:***	
Faccility ID:	1016	***CERR Code:***	
District:	SJU	***TS:***	
Facility SIC Code:	3523	***Health Risk Asmt:***	
COID:	TUL		
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2020 Criteria Data

CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
Facility ID:	1016	***ROGT:***	0
District:	SJU	***COT:***	
Facility SIC Code:	3523	***NOXT:***	
CO ID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD		
TOGT:	0		
PMT:			
PM10T:			

2020 Toxic Data

CO:	54	***DISN:***	SAN JOAQUIN VALLEY APCD
Air Basin:	SJV	***CHAPIS:***	

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Facility ID: 1016
District: SJU
Facility SIC Code: 3523
COID: TUL
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
CHERR Code:
TS:
Health Risk Asmt:

2021 Toxic Data

Co: 54
Air Basin: SJV
Facility ID: 1016
District: SJU
Facility SIC Code: 3523
COID: TUL
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
DISN: SAN JOAQUIN VALLEY APCD
CHAPIS:
Cerr Code:
TS:
Health Risk Asmt:

2021 Criteria Data

Co: 54
Air Basin: SJV
Facility ID: 1016
District: SJU
Facility SIC Code: 3523
CO ID: TUL
DISN: SAN JOAQUIN VALLEY APCD
TOGT: 0
PMT:
PM10T:
CHAPIS:
Cerr Code:
ROGT: 0
COT:
NOXT:
SOXT:

17	6 of9	SE	0.17 / 919.37	292.48 / 1	KIRBY MANUFACTURING INC. 1478 NORTH 'J' STREET TULARE CA 0	EMISSIONS

2002 Toxic Data

Facility ID: 1016
Facility SIC Code: 3399
CO: 54
Air Basin: SJV
District: SJU
TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:
COID: TUL
DISN: SAN JOAQUIN VALLEY APCD
CHAPIS:
CERR Code:

2004 Criteria Data

Facility ID: 1016
Facility SIC Code: 3523
CO: 54
Air Basin: SJV
District: SJU
COID: TUL
DISN: SAN JOAQUIN VALLEY APCD
CHAPIS:
CERR Code:
TOGT: .1261482451809338842975206611570247933884
ROGT: .123287501335144
COT:
NOXT:
SOXT:
PMT:
PM10T:

2004 Toxic Data

Facility ID:	1016	***COID:***	TUL
Facility SIC Code:	3523	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2005 Criteria Data

Facility ID:	1016	***CERR Code:***	
Facility SIC Code:	3523	***TOGT:***	.1261482451809338842975206611570247933884
CO:	54	***ROGT:***	.123287501335144
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2005 Toxic Data

Facility ID:	1016	***COID:***	TUL
Facility SIC Code:	3523	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2006 Criteria Data

Facility ID:	1016	***CERR Code:***	
Facility SIC Code:	3523	***TOGT:***	.1261482451809338842975206611570247933884
CO:	54	***ROGT:***	.123287501335144
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2006 Toxic Data

Facility ID:	1016	***COID:***	TUL
Facility SIC Code:	3523	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2007 Criteria Data

Facility ID:	1016	***CERR Code:***	
Facility SIC Code:	3523	***TOGT:***	.12614824518093388429752066115702479338384
CO:	54	***ROGT:***	.123287501335144
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2007 Toxic Data

Facility ID:	1016	***COID:***	TUL
Facility SIC Code:	3523	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2008 Criteria Data

Facility ID:	1016	***CERR Code:***	
Facility SIC Code:	3523	***TOGT:***	.12614824518093388429752066115702479338384
CO:	54	***ROGT:***	.123287501335144
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2008 Toxic Data

Facility ID:	1016	***COID:***	TUL
Facility SIC Code:	3523	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2009 Criteria Data

Facility ID:	1016	***CERR Code:***	
Facility SIC Code:	3523	***TOGT:***	.12614824518093388429752066115702479338384
CO:	54	***ROGT:***	.123287501335144
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2009 Toxic Data

Facility ID:	1016	***COID:***	TUL
Facility SIC Code:	3523	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2010 Toxic Data

Facility ID:	1016	***COID:***	TUL
Facility SIC Code:	3523	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2011 Criteria Data

Facility ID:	1016	***CERR Code:***	
Facility SIC Code:	3523	***TOGT:***	0
CO:	54	***ROGT:***	0
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2011 Toxic Data

Facility ID:	1016	***COID:***	TUL
Facility SIC Code:	3523	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2012 Criteria Data

Facility ID:	1016	***CERR Code:***	
Facility SIC Code:	3523	***TOGT:***	0
CO:	54	***ROGT:***	0
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	
CHAPIS:		***PM10T:***	

2012 Toxic Data

Facility ID:	1016	***COID:***	TUL
Facility SIC Code:	3523	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

TS:
Health Risk Asmt:
Non-Cancer Chronic Haz Ind:
Non-Cancer Acute Haz Ind:

17	7 of9	SE	0.17 / 919.37	292.48 / 1	CROSCO MANUFACTURING 1478 NORTH J STREET TULARE CA	HIST TANK

Owner Name:	CROSCO MANUFACTURING/JAMES W.	**No of Containers:**	2
Owner Street:	1478 NORTH J STREET	**County:**	TULARE
Owner City:	TULARE	**Facility State:**	CA
Owner State:	CA	**Facility Zip:**	93274
Owner Zip:	93274		

17	8 of9	SE	0.17 / 919.37	292.48 / 1	KIRBY MANUFACTURING TULARE INC 1478 NORTH J ST TULARE CA 93274	RCRA NON GEN

EPA Handler ID:	CAL000271894
Gen Status Universe:	No Report
Contact Name:	TOM DAY
Contact Address:	1478 NORTH J ST , , TULARE , CA, 93274 ,
Contact Phone No and Ext:	559-686-1571
Contact Email:	TOMD@KIRBYMFG.COM
Contact Country:	
County Name:	TULARE
EPA Region:	09
Land Type:	
Receive Date:	20030617
Location Latitude:	36.226987
Location Longitude:	-119.352341

Violation/Evaluation Summary

Note: NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20030617
Handler Name:	KIRBY MANUFACTURING TULARE INC
Source Type:	Implementer

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	1478 NORTH J ST
Name:	TOM DAY	**Street 2:**	
Date Became Current:		**City:**	TULARE
Date Ended Current:		**State:**	CA
Phone:	559-686-1571	**Country:**	
Source Type:	Implementer	**Zip Code:**	93274

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Other	**Street 1:**	1478 NORTH J ST
Name:	KIRBY MFG INC	**Street 2:**	
Date Became Current:		**City:**	TULARE
Date Ended Current:		**State:**	CA
Phone:	559-686-1571	**Country:**	
Source Type:	Implementer	**Zip Code:**	93274-0000

17	9 of9	SE	0.17 / 919.37	292.48 / 1	CROSCO MFG/JAMES W SMITH 1478 N J ST TULARE CA	UST SWEEPS

C C:	A54-000-88	**D Filename:**	SITE11A
BOE:	44-029472	**Page No:**	133
Comp:	88	**County:**	TULARE
Status:	ACTIVE	**State :**	CA
No of Tanks:	2	**Zip:**	93274
Jurisdict:	TULARE COUNTY	**Latitude:**	36.227242
Agency:	COUNTY OF TULARE - U.S.T.	**Longitude:**	-119.352321
Phone:		**Georesult:**	S5HPNTSCZA

Tank Details

Tank ID:	000002	**S Contain:**	
O Tank ID:	2	**Stg:**	P
SWRCB No:	54-000-000088-000002	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	04-20-88	**Content:**	UNKNOWN
Capac:	550	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK11

Tank Details

Tank ID:	000001	**S Contain:**	
O Tank ID:	1	**Stg:**	P
SWRCB No:	54-000-000088-000001	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	04-20-88	**Content:**	UNKNOWN
Capac:	550	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK11

18	1 of1	ESE	0.20 / 1,046.74	292.34 / 1	BRENDA CARMICHAEL 167 W. LYNN AVE. TULARE CA 93274	RCRA NON GEN

EPA Handler ID:	CAC003199958
Gen Status Universe:	No Report
Contact Name:	BRENDA CARMICHAEL
Contact Address:	167 W. LYNN AVE. , , TULARE , CA, 93274 ,

Contact Phone No and Ext:	559-991-7747
Contact Email:	JDAVIS@PARCENVIRONMENTAL.COM
Contact Country:	
County Name:	TULARE
EPA Region:	09
Land Type:	
Receive Date:	20221017
Location Latitude:	
Location Longitude:	

Violation/Evaluation Summary

Note:	NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20221017
Handler Name:	BRENDA CARMICHAEL
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Other	**Street 1:**	167 W. LYNN AVE.
Name:	BRENDA CARMICHAEL	**Street 2:**	
Date Became Current:		**City:**	TULARE
Date Ended Current:		**State:**	CA
Phone:	559-991-7747	**Country:**	
Source Type:	Implementer	**Zip Code:**	93274
Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	167 W. LYNN AVE.
Name:	BRENDA CARMICHAEL	**Street 2:**	
Date Became Current:		**City:**	TULARE
Date Ended Current:		**State:**	CA
Phone:	559-991-7747	**Country:**	
Source Type:	Implementer	**Zip Code:**	93274

19	*1 of3*	*SE*	*0.20 / 1,079.19*	*292.61 / 1*	***ARMANDO'S AUTO REPAIR*** ***1410 N J ST*** ***TULARE CA 93274***	***CUPA TULARE***

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Facility ID:	FA1349305	**GIS Latitude:**	36.226639218
CERS ID:	10606927	**GIS Longitude:**	-119.35197311
Phone:	5596849574	**APN:**	164-090-001
Second Phone:	5596885468		

Details

Gen Prog Record ID:	PR1354264	**Comment:**	TULARE CITY
Haz Emerg Record ID:	EM0001578	**Current Status:**	Active, billable
PE:	2277	**Billing Status:**	Active, billable
Description:	CUPA OVERSIGHT CA SURCHARGE		

Gen Prog Record ID:	PR1357406	**Comment:**	TULARE CITY
Haz Emerg Record ID:	EM0001578	**Current Status:**	Active, non-billable
PE:	2223	**Billing Status:**	Active, exempt from billing
Description:	Haz Mat - < 6 Reportable Quantities of Chem		

19	2 of3	SE	0.20 / 1,079.19	292.61 / 1	ARMANDO'S AUTO REPAIR 1410 N J ST TULARE CA 93274	RCRA NON GEN

EPA Handler ID:	CAC003114481
Gen Status Universe:	No Report
Contact Name:	ARMANDO CHAVEZ
Contact Address:	1291 S IRWIN ST , , TULARE , CA, 93274 ,
Contact Phone No and Ext:	559-688-5468
Contact Email:	RIVERBANK@KERNOILFILTERRECYCLING.COM
Contact Country:	
County Name:	TULARE
EPA Region:	09
Land Type:	
Receive Date:	20210412
Location Latitude:	
Location Longitude:	

Violation/Evaluation Summary

Note: NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20210412
Handler Name:	ARMANDO'S AUTO REPAIR

Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Other	**Street 1:**	1291 S IRWIN ST
Name:	ARMANDO CHAVEZ	**Street 2:**	
Date Became Current:		**City:**	TULARE
Date Ended Current:		**State:**	CA
Phone:	559-688-5468	**Country:**	
Source Type:	Implementer	**Zip Code:**	93274

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	1291 S IRWIN ST
Name:	ARMANDO CHAVEZ	**Street 2:**	
Date Became Current:		**City:**	TULARE
Date Ended Current:		**State:**	CA
Phone:	559-688-5468	**Country:**	
Source Type:	Implementer	**Zip Code:**	93274

19	3 of3	SE	0.20 / 1,079.19	292.61 / 1	ARMANDO'S AUTO REPAIR 1410 N J ST TULARE CA 93274	RCRA NON GEN

EPA Handler ID: CAL000236247
Gen Status Universe: No Report
Contact Name: JULIE CHAVEZ
Contact Address: 524 , W WADE AVE , , TULARE , CA, 93274 , US
Contact Phone No and Ext: 559-786-0640
Contact Email: JCHAVEZ3@FARMERSAGENT.COM
Contact Country: US
County Name: TULARE
EPA Region: 09
Land Type:
Receive Date: 20210701
Location Latitude:
Location Longitude:

Violation/Evaluation Summary

Note: NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity: No
Mixed Waste Generator: No
Transporter Activity: No
Transfer Facility: No
Onsite Burner Exemption: No
Furnace Exemption: No
Underground Injection Activity: No
Commercial TSD: No
Used Oil Transporter: No
Used Oil Transfer Facility: No
Used Oil Processor: No
Used Oil Refiner: No
Used Oil Burner: No
Used Oil Market Burner: No
Used Oil Spec Marketer: No

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20210701
Handler Name:	ARMANDO'S AUTO REPAIR
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Operator	***Street No:***	1410
Type:	Private	***Street 1:***	N J ST
Name:	ARMANDO CHAVEZ	***Street 2:***	
Date Became Current:		***City:***	TULARE
Date Ended Current:		***State:***	CA
Phone:	559-799-6362	***Country:***	US
Source Type:	Implementer	***Zip Code:***	93274

20	*1 of1*	*N*	*0.20 / 1,081.38*	*291.45 / 0*	***AT&T MOBILITY - CARTMILL & J (USID133912)*** ***2478 N E ST*** ***TULARE CA 93274***	***CUPA TULARE***

Facility ID:	FA1353025	***GIS Latitude:***	36.237959
CERS ID:	10676047	***GIS Longitude:***	-119.357136
Phone:	8006382822	***APN:***	164-030-016
Second Phone:	8005669347		

Details

Gen Prog Record ID:	PR1360121	***Comment:***	
Haz Emerg Record ID:	EM0011162	***Current Status:***	Active, billable
PE:	2277	***Billing Status:***	Active, billable
Description:	CUPA OVERSIGHT CA SURCHARGE		

Gen Prog Record ID:	PR1360120	***Comment:***	
Haz Emerg Record ID:	EM0011162	***Current Status:***	Active, billable
PE:	2223	***Billing Status:***	Active, billable
Description:	Haz Mat - < 6 Reportable Quantities of Chem		

21	*1 of4*	*S*	*0.21 / 1,084.53*	*290.87 / -1*	***ANDERSON CLAYTON AND CO TULARE*** ***446 W. PROSPERITY AVE.*** ***TULARE CA 93274***	***HHSS***

County:	Tulare
Tank Details Microfiche:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000234ee.pdf

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21	*2 of4*	*S*	*0.21 / 1,084.53*	*290.87 / -1*	***ECO CHEMICAL & EQUIPMENT*** ***446 W PROSPERITY*** ***TULARE CA 93274***	***CUPA TULARE***

Facility ID:	FA1345737	***GIS Latitude:***	
CERS ID:		***GIS Longitude:***	
Phone:	5596868707	***APN:***	164-100-003
Second Phone:			

Details

Gen Prog Record ID:	PR1345879	***Comment:***	
Haz Emerg Record ID:	EM0004986	***Current Status:***	Inactive, non-billable

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

PE:	2277	**Billing Status:**	Inactive, non-billable
Description:	CUPA OVERSIGHT CA SURCHARGE		
Gen Prog Record ID:	PR1345878	**Comment:**	
Haz Emerg Record ID:	EM0004986	**Current Status:**	Inactive, non-billable
PE:	2224	**Billing Status:**	Inactive, non-billable
Description:	Haz Mat 6 - 15 Reportable Quantities of Chem		

21	3 of4	S	0.21 / 1,084.53	290.87 / -1	ANDERSON CLAYTON & CO. TULARE 446 W. PROSPERITY AVE. TULARE CA	HIST TANK

Owner Name:	ANDERSON CLAYTON & CO., WESTER	**No of Containers:**	1
Owner Street:	446 W. PROSPERITY AVE.	**County:**	TULARE
Owner City:	TULARE	**Facility State:**	CA
Owner State:	CA	**Facility Zip:**	93274
Owner Zip:	93274		

21	4 of4	S	0.21 / 1,084.53	290.87 / -1	AG SPECTRUM COMPANY 446 W. PROSPERITY AVE. TULARE CA 93274	RCRA NON GEN

EPA Handler ID:	CAC002986984
Gen Status Universe:	No Report
Contact Name:	LUCAS FROBISH
Contact Address:	428 E. 11TH STREET , P.O. BOX 215 , DEWITT , IA, 52742 ,
Contact Phone No and Ext:	563-659-5046
Contact Email:	LUKE@AGSPECTRUM.COM
Contact Country:	
County Name:	TULARE
EPA Region:	09
Land Type:	
Receive Date:	20181029
Location Latitude:	36.225724
Location Longitude:	-119.354592

Violation/Evaluation Summary

Note: NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No: 1

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Receive Date: 20181029
Handler Name: AG SPECTRUM COMPANY
Source Type: Implementer
Federal Waste Generator Code: N
Generator Code Description: Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind: Current Operator
Type: Other
Name: LUCAS FROBISH
Date Became Current:
Date Ended Current:
Phone: 563-659-5046
Source Type: Implementer
Street No:
Street 1: 428 E. 11TH STREET
Street 2: P.O. BOX 215
City: DEWITT
State: IA
Country:
Zip Code: 52742

Owner/Operator Ind: Current Owner
Type: Other
Name: AG SPECTRUM COMPANY
Date Became Current:
Date Ended Current:
Phone: 563-659-5046
Source Type: Implementer
Street No:
Street 1: 428 E. 11TH STREET
Street 2: P.O. BOX 215
City: DEWITT
State: IA
Country:
Zip Code: 52742

22	1 of5	SE	0.23 / 1,214.33	292.38 / 1	TULARE COUNTY CONCRETE INC 210 WEST PROSPERITY AVE TULARE CA 93275	HHSS

County:
Tank Details Microfiche: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002b78c.pdf

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22	2 of5	SE	0.23 / 1,214.33	292.38 / 1	ARTESIA COMPANIES INC 210 W PROSPERITY AVE TULARE CA 93275	CUPA TULARE

Facility ID: FA1000627
CERS ID:
Phone: 5596861596
Second Phone:
GIS Latitude:
GIS Longitude:
APN: 164-090-018

Details

Gen Prog Record ID: PR1348538
Haz Emerg Record ID: EM0000056
PE: 2277
Description: CUPA OVERSIGHT CA SURCHARGE
Comment: TULARE CITY
Current Status: Inactive, non-billable
Billing Status: Inactive, non-billable

Gen Prog Record ID: PR1000627
Haz Emerg Record ID: EM0000056
PE: 2224
Description: Haz Mat 6 - 15 Reportable Quantities of Chem
Comment: TULARE CITY
Current Status: Inactive, non-billable
Billing Status: Inactive, non-billable

Gen Prog Record ID: PR1347749
Haz Emerg Record ID: EM0000056
PE: 2254
Description: HW - SMALL GENERATOR
Comment: TULARE CITY
Current Status: Inactive, non-billable
Billing Status: Inactive, non-billable

22	3 of5	SE	0.23 / 1,214.33	292.38 / 1	THE ARTESIA COMPANY 210 W PROSPERITY TULARE CA	EMISSIONS

2008 Criteria Data

Facility ID:	4018	***CERR Code:***	
Facility SIC Code:	3272	***TOGT:***	
CO:	54	***ROGT:***	
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	. 01394008152173913043478260869565217391 31
CHAPIS:		***PM10T:***	.012824875

2008 Toxic Data

Facility ID:	4018	***COID:***	TUL
Facility SIC Code:	3272	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2009 Criteria Data

Facility ID:	4018	***CERR Code:***	
Facility SIC Code:	3272	***TOGT:***	
CO:	54	***ROGT:***	
Air Basin:	SJV	***COT:***	
District:	SJU	***NOXT:***	
COID:	TUL	***SOXT:***	
DISN:	SAN JOAQUIN VALLEY APCD	***PMT:***	. 01394008152173913043478260869565217391 31
CHAPIS:		***PM10T:***	.012824875

2009 Toxic Data

Facility ID:	4018	***COID:***	TUL
Facility SIC Code:	3272	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2010 Toxic Data

Facility ID:	4018	***COID:***	TUL
Facility SIC Code:	3272	***DISN:***	SAN JOAQUIN VALLEY APCD
CO:	54	***CHAPIS:***	
Air Basin:	SJV	***CERR Code:***	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2011 Criteria Data

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Facility ID:	4018	**CERR Code:**	
Facility SIC Code:	3272	**TOGT:**	
CO:	54	**ROGT:**	
Air Basin:	SJV	**COT:**	
District:	SJU	**NOXT:**	
COID:	TUL	**SOXT:**	
DISN:	SAN JOAQUIN VALLEY APCD	**PMT:**	. 0139400815217391304347826086956521739131
CHAPIS:		**PM10T:**	.012824875

2011 Toxic Data

Facility ID:	4018	**COID:**	TUL
Facility SIC Code:	3272	**DISN:**	SAN JOAQUIN VALLEY APCD
CO:	54	**CHAPIS:**	
Air Basin:	SJV	**CERR Code:**	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

2012 Criteria Data

Facility ID:	4018	**CERR Code:**	
Facility SIC Code:	3272	**TOGT:**	
CO:	54	**ROGT:**	
Air Basin:	SJV	**COT:**	
District:	SJU	**NOXT:**	
COID:	TUL	**SOXT:**	
DISN:	SAN JOAQUIN VALLEY APCD	**PMT:**	. 0139400815217391304347826086956521739131
CHAPIS:		**PM10T:**	.012824875

2012 Toxic Data

Facility ID:	4018	**COID:**	TUL
Facility SIC Code:	3272	**DISN:**	SAN JOAQUIN VALLEY APCD
CO:	54	**CHAPIS:**	
Air Basin:	SJV	**CERR Code:**	
District:	SJU		
TS:			
Health Risk Asmt:			
Non-Cancer Chronic Haz Ind:			
Non-Cancer Acute Haz Ind:			

22	*4 of5*	*SE*	*0.23 / 1,214.33*	*292.38 / 1*	***TULARE COUNTY CONCRETE, INC*** ***210 WEST PROSPERITY AVE*** ***TULARE CA***	***HIST TANK***

Owner Name:	JAMES V. HARPER JR.	**No of Containers:**	2
Owner Street:	210 WEST PROSPERITY AVE.	**County:**	TULARE
Owner City:	TULARE	**Facility State:**	CA
Owner State:	CA	**Facility Zip:**	93275
Owner Zip:	93275		

22	*5 of5*	*SE*	*0.23 / 1,214.33*	*292.38 / 1*	***TULARE COUNTY CONCRETE*** ***210 W PROSPERITY*** ***TULARE CA***	***UST SWEEPS***

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

C C:	A54-000-107	**D Filename:**	SITE11A
BOE:	44-029485	**Page No:**	139
Comp:	107	**County:**	TULARE
Status:	ACTIVE	**State :**	CA
No of Tanks:	2	**Zip:**	93275
Jurisdict:	TULARE COUNTY	**Latitude:**	36.225767
Agency:	COUNTY OF TULARE - U.S.T.	**Longitude:**	-119.350578
Phone:		**Georesult:**	S5HPN-SC-A

Tank Details

Tank ID:	000001	**S Contain:**	
O Tank ID:		**Stg:**	P
SWRCB No:	54-000-000107-000001	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	04-20-88	**Content:**	
Capac:	10000	**ONA:**	
Tank Use:	CHEMICAL	**D File Name:**	TANK11

Tank Details

Tank ID:	000002	**S Contain:**	
O Tank ID:	2	**Stg:**	P
SWRCB No:	54-000-000107-000002	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	04-20-88	**Content:**	UNKNOWN
Capac:	2000	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK11

23	1 of2	SSE	0.25 / 1,308.79	290.88 / -1	ANDERSON CLAYTON & CO. /TULARE 446 W PROPERITY TULARE CA	UST SWEEPS

C C:	A54-000-1924	**D Filename:**	SITE11A
BOE:	44-029873	**Page No:**	139
Comp:	1924	**County:**	TULARE
Status:	ACTIVE	**State :**	CA
No of Tanks:	1	**Zip:**	93274
Jurisdict:	TULARE COUNTY	**Latitude:**	0
Agency:	COUNTY OF TULARE - U.S.T.	**Longitude:**	0
Phone:		**Georesult:**	N

Tank Details

Tank ID:	000001	**S Contain:**	
O Tank ID:	1	**Stg:**	P
SWRCB No:	54-000-001924-000001	**Storage :**	
Removed:		**Storag Type:**	PRODUCT
Installed:		**P Contain:**	
A Date:	04-20-88	**Content:**	UNKNOWN
Capac:	550	**ONA:**	
Tank Use:	M.V. FUEL	**D File Name:**	TANK11

23	2 of2	SSE	0.25 / 1,308.79	290.88 / -1	TRUELINE REFRIGERATION 446 W PROSPERTY TULARE CA 93274	RCRA NON GEN

EPA Handler ID:	CAC003177916
Gen Status Universe:	No Report
Contact Name:	EDGAR PEREZ

Contact Address:	446 W PROSPERTY , , TULARE , CA, 93274 ,
Contact Phone No and Ext:	559-901-7580
Contact Email:	EDGARPEREZ1012@YAHOO.COM
Contact Country:	
County Name:	TULARE
EPA Region:	09
Land Type:	
Receive Date:	20220525
Location Latitude:	
Location Longitude:	

Violation/Evaluation Summary

Note: NO RECORDS: As of Apr 2024, there are no Compliance Monitoring and Enforcement (violation) records associated with this facility (EPA ID).

Handler Summary

Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility:	No
Onsite Burner Exemption:	No
Furnace Exemption:	No
Underground Injection Activity:	No
Commercial TSD:	No
Used Oil Transporter:	No
Used Oil Transfer Facility:	No
Used Oil Processor:	No
Used Oil Refiner:	No
Used Oil Burner:	No
Used Oil Market Burner:	No
Used Oil Spec Marketer:	No

Hazardous Waste Handler Details

Sequence No:	1
Receive Date:	20220525
Handler Name:	TRUELINE REFRIGERATION
Source Type:	Implementer
Federal Waste Generator Code:	N
Generator Code Description:	Not a Generator, Verified

Owner/Operator Details

Owner/Operator Ind:	Current Owner	**Street No:**	
Type:	Other	**Street 1:**	446 W PROSPERTY
Name:	EDGAR PEREZ	**Street 2:**	
Date Became Current:		**City:**	TULARE
Date Ended Current:		**State:**	CA
Phone:	559-901-7580	**Country:**	
Source Type:	Implementer	**Zip Code:**	93274

Owner/Operator Ind:	Current Operator	**Street No:**	
Type:	Other	**Street 1:**	446 W PROSPERTY
Name:	EDGAR PEREZ	**Street 2:**	
Date Became Current:		**City:**	TULARE
Date Ended Current:		**State:**	CA
Phone:	559-901-7580	**Country:**	
Source Type:	Implementer	**Zip Code:**	93274

24	1 of1	SSE	0.27 / 1,413.22	292.15 / 1	Rb Recycling 1280 North H St	RECYCLING

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
					Tulare CA 93274	

Account No:	RC298172.001	**Facility County:**	Tulare
Website:		**Operation Begin Dt:**	5/13/2020
Phone No:	(559) 799-9513	**Rural:**	No
Email:		**Appointment Only:**	No

Hours of Operation: Mon - Sat 9:00 am - 5:00 pm, Closed 12:00 pm - 12:30 pm; Sun Closed
Organization Name: Rb Recycling
Mailing Address: 1405 Zumwalt Ave
Mailing City: Tulare
Mailing State: CA
Mailing Postal Cd: 93274

25	1 of1	SE	0.29 / 1,523.49	292.63 / 1	LUCIO TRUCKING CO. 1258 J ST N TULARE CA 93274	LUST

Global ID:	T0610700287	**Case Type (DL):**	LUST Cleanup Site
Site Facility Type:	LUST CLEANUP SITE	**Oil Field (SRCH):**	
Site Fac Type (SRCH):	LUST CLEANUP SITE	**Oil Field Oper (SRCH):**	
Status:		**Census Tract (SRCH):**	6107002303
Status (SRCH):	COMPLETED - CASE CLOSED	**Latitude (DL):**	36.225111
Status (DL):	Completed - Case Closed	**Longitude (DL):**	-119.351529
Status Date (DL):	7/28/2004	**RWQCB Region (DL):**	CENTRAL VALLEY RWQCB (REGION 5F)
Cleanup Status:	COMPLETED - CASE CLOSED		

Site Facility Name (SRCH): LUCIO TRUCKING CO.
Address (SRCH): 1258 J ST N
City (SRCH): TULARE
Zip (SRCH): 93274
County (SRCH): TULARE
Street No (DL): 1258
Street Name (DL): J ST N
City (DL): TULARE
Zip (DL): 93274
County (DL): Tulare
State (DL): CA
Business Name (DL): LUCIO TRUCKING CO.
Site Facility Name: LUCIO TRUCKING CO.
Address : 1258 J ST N
City : TULARE
Zip : 93274
County : TULARE
Report Source: GeoTracker Search Results (SRCH);GeoTracker Sites Data Download (DL);GeoTracker Search Results Report

GeoTracker Sites Data Download - Site Details

CUF Case: YES
Lead Agency: TULARE COUNTY
Case Worker: JOE
Local Agency: TULARE COUNTY
RB Case No: 5T54000300
Local Case No: 667
File Location:
Potential COC: Gasoline
Potential Media of Concern: Soil
Begin Date: 8/27/1993
How Discovered: Tank Closure
How Discovered Description:
Stop Method:
Stop Description:
Calwater Watershed Name: South Valley Floor - Kaweah Delta (558.10)
DWR GW Subbasin Name: San Joaquin Valley - Kaweah (5-022.11)
Disadvantaged Community:
CalEnvScreen Score:
Coordinate Source: Google Geocode

Discharge Cause:	Unknown
Discharge Source:	Other
EPA Region:	9
Leak Reported Dt:	1993-11-15 00:00:00
Military DoD Site:	No
No Further Action Dt:	2004-07-28 00:00:00
Qty Rlsd Gallons:	
Facility Project Sub Type:	
Calenviroscreen 3 Score:	66-70%
Calenviroscreen 4 Score:	70-75%
Site History:	

GeoTracker Sites Data Download - Regulatory Contacts

Contact Type:	Local Agency Caseworker - Primary Caseworker
Contact Name:	JOEL MARTENS
Organization Name:	TULARE COUNTY
Address:	5957 So. Mooney Blvd
City:	Visalia
Email:	jmartens@tularehhsa.org
Phone No:	5596247419

GeoTracker Sites Data Download - Status History

Status:	Completed - Case Closed
Status Date:	7/28/2004
Status:	Open - Remediation
Status Date:	8/15/1995
Status:	Open - Site Assessment
Status Date:	5/26/1994
Status:	Open - Site Assessment
Status Date:	2/9/1994
Status:	Open - Site Assessment
Status Date:	9/14/1993
Status:	Open - Case Begin Date
Status Date:	8/27/1993

GeoTracker Search - Regulatory Profile (as of June 5, 2024)

Site Facility Name:	LUCIO TRUCKING CO.
Site Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Address:	1258 J ST N
City:	TULARE
Zip:	93274
County:	TULARE
Report Link:	https://geotracker.waterboards.ca.gov/profile_report?global_id=T0610700287
Cleanup Status Detail:	COMPLETED - CASE CLOSED AS OF 7/28/2004
Project Status:	
Cleanup History Link:	https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0610700287&tabname=regulatoryhistory
Potential COC:	GASOLINE
Potential Media of Concern:	SOIL
File Location:	
User Defined Beneficial Use:	
Designated Beneficial Use:	MUN, AGR, IND, PROC, REC_1, REC_2
DWR GW Sub Basin:	San Joaquin Valley - Kaweah (5-022.11)
Calwater Watershed Name:	South Valley Floor - Kaweah Delta (558.10)
Post Closure Site Management:	
Future Land Use:	
Cleanup Oversight Agencies:	TULARE COUNTY (LEAD) - CASE #: 667

CASE MANAGER: JOEL MARTENS
CENTRAL VALLEY RWQCB (REGION 5F) - CASE #: 5T54000300

CUF Claim No: 8334
CUF Priority Assig: C
CUF Amount Paid: $118,948
WDR Place Type:
WDR File No:
WDR Order No:
Project Oversight Agencies:
Facility Type:
Composting Method:
Grndwtr Monitoring Frequency:
Designated Beneficial Use Desc: Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply, Water Contact Recreation, Non-Contact Water Recreation
Site History:

No site history available

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status: Completed - Case Closed
Date : 7/28/2004

Status: Open - Remediation
Date : 8/15/1995

Status: Open - Site Assessment
Date : 5/26/1994

Status: Open - Site Assessment
Date : 2/9/1994

Status: Open - Site Assessment
Date : 9/14/1993

Status: Open - Case Begin Date
Date : 8/27/1993

GeoTracker Search - Regulatory Activities (as of June 5, 2024)

Action Type: Other Regulatory Actions
Action: Closure/No Further Action Letter
Action Date: 7/28/2004
Received Issue Date: 7/28/2004
Doc Link:
Title Description Comments:

Action Type: Other Regulatory Actions
Action: Staff Letter
Action Date: 11/30/1993
Received Issue Date: 11/30/1993
Doc Link:
Title Description Comments:

Action Type: Enforcement/Orders
Action: * Historical Enforcement
Action Date: 11/30/1993
Received Issue Date: 11/30/1993
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Reported

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Action Date: 11/15/1993
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Stopped
Action Date: 8/27/1993
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Discovery
Action Date: 8/27/1993
Received Issue Date:
Doc Link:
Title Description Comments:

26	1 of1	SSE	0.39 / 2,074.62	292.65 / 1	FIDLER CONSTRUCTION (EVANS MOT 1146 J ST N TULARE CA 93274	LUST

Global ID: T0610700215
Site Facility Type: LUST CLEANUP SITE
Site Fac Type (SRCH): LUST CLEANUP SITE
Status:
Status (SRCH): COMPLETED - CASE CLOSED
Status (DL): Completed - Case Closed
Status Date (DL): 1/1/1999
Cleanup Status: COMPLETED - CASE CLOSED
Case Type (DL): LUST Cleanup Site
Oil Field (SRCH):
Oil Field Oper (SRCH):
Census Tract (SRCH): 6107002303
Latitude (DL): 36.2238619
Longitude (DL): -119.351245
RWQCB Region (DL): CENTRAL VALLEY RWQCB (REGION 5F)
Site Facility Name (SRCH): FIDLER CONSTRUCTION (EVANS MOT
Address (SRCH): 1146 J ST N
City (SRCH): TULARE
Zip (SRCH): 93274
County (SRCH): TULARE
Street No (DL): 1146
Street Name (DL): J ST N
City (DL): TULARE
Zip (DL): 93274
County (DL): Tulare
State (DL): CA
Business Name (DL): FIDLER CONSTRUCTION (EVANS MOT
Site Facility Name: FIDLER CONSTRUCTION (EVANS MOT
Address : 1146 J ST N
City : TULARE
Zip : 93274
County : TULARE
Report Source: GeoTracker Search Results (SRCH);GeoTracker Sites Data Download (DL);GeoTracker Search Results Report

GeoTracker Sites Data Download - Site Details

CUF Case: NO
Lead Agency: TULARE COUNTY
Case Worker: JOE
Local Agency: TULARE COUNTY
RB Case No: 5T54000215
Local Case No: 442
File Location:
Potential COC: Gasoline
Potential Media of Concern: Aquifer used for drinking water supply
Begin Date: 5/18/1990
How Discovered: Nuisance Conditions

How Discovered Description:	
Stop Method:	
Stop Description:	
Calwater Watershed Name:	South Valley Floor - Kaweah Delta (558.10)
DWR GW Subbasin Name:	San Joaquin Valley - Kaweah (5-022.11)
Disadvantaged Community:	
CalEnvScreen Score:	
Coordinate Source:	Google Geocode
Discharge Cause:	Unknown
Discharge Source:	Other
EPA Region:	9
Leak Reported Dt:	1990-07-16 00:00:00
Military DoD Site:	No
No Further Action Dt:	1999-01-01 00:00:00
Qty Rlsd Gallons:	
Facility Project Sub Type:	
Calenviroscreen 3 Score:	66-70%
Calenviroscreen 4 Score:	70-75%
Site History:	

GeoTracker Sites Data Download - Regulatory Contacts

Contact Type:	Local Agency Caseworker - Primary Caseworker
Contact Name:	JOEL MARTENS
Organization Name:	TULARE COUNTY
Address:	5957 So. Mooney Blvd
City:	Visalia
Email:	jmartens@tularehhsa.org
Phone No:	5596247419

GeoTracker Sites Data Download - Status History

Status:	Completed - Case Closed
Status Date:	1/1/1999
Status:	Open - Site Assessment
Status Date:	9/11/1990
Status:	Open - Case Begin Date
Status Date:	5/18/1990

GeoTracker Search - Regulatory Profile (as of June 5, 2024)

Site Facility Name:	FIDLER CONSTRUCTION (EVANS MOT
Site Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Address:	1146 J ST N
City:	TULARE
Zip:	93274
County:	TULARE
Report Link:	https://geotracker.waterboards.ca.gov/profile_report?global_id=T0610700215
Cleanup Status Detail:	COMPLETED - CASE CLOSED AS OF 1/1/1999
Project Status:	
Cleanup History Link:	https://geotracker.waterboards.ca.gov/profile_report_include?global_id=T0610700215&tabname=regulatoryhistory
Potential COC:	GASOLINE
Potential Media of Concern:	AQUIFER USED FOR DRINKING WATER SUPPLY
File Location:	
User Defined Beneficial Use:	
Designated Beneficial Use:	MUN, AGR, IND, PROC, REC_1, REC_2
DWR GW Sub Basin:	San Joaquin Valley - Kaweah (5-022.11)
Calwater Watershed Name:	South Valley Floor - Kaweah Delta (558.10)
Post Closure Site Management:	
Future Land Use:	
Cleanup Oversight Agencies:	TULARE COUNTY (LEAD) - CASE #: 442 CASE MANAGER: JOEL MARTENS

CENTRAL VALLEY RWQCB (REGION 5F) - CASE #: 5T54000215

CUF Claim No:
CUF Priority Assig:
CUF Amount Paid:
WDR Place Type:
WDR File No:
WDR Order No:
Project Oversight Agencies:
Facility Type:
Composting Method:
Grndwtr Monitoring Frequency:
Designated Beneficial Use Desc: Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, Industrial Process Supply, Water Contact Recreation, Non-Contact Water Recreation
Site History:

No site history available

GeoTracker Search - Cleanup Status History (as of June 5, 2024)

Status: Completed - Case Closed
Date : 1/1/1999

Status: Open - Site Assessment
Date : 9/11/1990

Status: Open - Case Begin Date
Date : 5/18/1990

GeoTracker Search - Regulatory Activities (as of June 5, 2024)

Action Type: Leak Action
Action: Leak Reported
Action Date: 7/16/1990
Received Issue Date:
Doc Link:
Title Description Comments:

Action Type: Leak Action
Action: Leak Discovery
Action Date: 5/18/1990
Received Issue Date:
Doc Link:
Title Description Comments:

27	1 of1	SSE	0.78 / 4,131.40	292.16 / 1	TIDEWATER ASSOC OIL CO (3) 904 NORTH J ST TULARE CA 93274	ENVIROSTOR

Estor/EPA ID: 54290034
Site Code:
Nat Priority List: NO
APN: NONE SPECIFIED
Census Tract: 6107002303
Site Type: * HISTORICAL
Address Description: 904 NORTH J ST
Office: CLEANUP SACRAMENTO
Special Program:
Funding:
Cleanup Status: NO FURTHER ACTION AS OF 9/12/1983
Cleanup Oversight Agencies: NONE SPECIFIED
School District:
Past Use that Caused Contam: NONE SPECIFIED
Potential Media Affected: NONE SPECIFIED

Assembly District: 33
Senate District: 12
Permit Renewal Lead:
Public Partici Spclst:
Project Manager:
County: TULARE
Latitude: 36.2183333333333
Longitude: -119.35
Acres: NONE SPECIFIED
Supervisor:

Potential Contamin of Concern:

NONE SPECIFIED

Site History:

Status: NO FURTHER ACTION
Program Type: HISTORICAL
CalEnviroScreen Score: 70-75%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=54290034

Completed Activities

Title: Discovery
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: * Discovery
Date Completed: 1/19/1983
Comments: FACILITY IDENTIFIED IDENTIFIED FROM PHONE BOOK

28	1 of1	ENE	0.90 / 4,773.99	298.10 / 7	MOORE AVIATION 596 CARTMILL AVENUE TULARE CA 93274	ENVIROSTOR

Estor/EPA ID:	60000853	***Assembly District:***	33
Site Code:	101935	***Senate District:***	12
Nat Priority List:	NO	***Permit Renewal Lead:***	
APN:	166-010-05	***Public Partici Spclst:***	
Census Tract:	6107002400	***Project Manager:***	
Site Type:	VOLUNTARY AGREEMENT	***County:***	TULARE
Address Description:	596 CARTMILL AVENUE	***Latitude:***	36.239756
Office:	CLEANUP SAN JOAQUIN	***Longitude:***	-119.340481
Special Program:	VOLUNTARY AGREEMENT - STANDARD VOLUNTARY AGREEMENT	***Acres:***	0.73 ACRES
Funding:	CALMORTGAGE	***Supervisor:***	KEVIN SHADDY

Cleanup Status: NO FURTHER ACTION AS OF 7/19/2010
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY;TULARE COUNTY
School District:
Past Use that Caused Contam: PESTICIDE/INSECTICIDE/RODENTICIDE STORAGE
Potential Media Affected: CONTAMINATED SURFACE / STRUCTURE, SOIL
Potential Contamin of Concern:

ARSENIC
ORGANOCHLORINE PESTICIDES (8081 OCPS)
PETROLEUM

Site History:

The Moore Aviation site was used for 30 years, starting in 1952, to store agricultural products in support of a crop dusting operation which utilized an airstrip to the north of the site across Cartmill Ave. The site has been vacant since 1982. Contaminants stored at the site that have been detected in soil samples include DDT, DDE, chlordane, Dieldrin, and Endrin. Several metals have also been detected in site soil samples. Soil samples to date have been collected near the storage areas. There is currently one building located onsite. It is known to have been used for the storage of pesticides and other agriculture related products. A Phase II Site Assessment was completed in October of 2005. This previous work focused on storage areas at the site. Current plans call for DTSC to complete a Targeted Site Investigation (TSI), under a TSI Grant, that will more accurately define the extent of contamination across the site and identify and screen remedial alternatives. This work will be completed by LFR Inc., under contract with DTSC.

Status: NO FURTHER ACTION
Program Type: VOLUNTARY CLEANUP
CalEnviroScreen Score: 75-80%
Summary Link: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60000853

Completed Activities

Title: Targeted Site Investigation Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000853&doc_id=6023313
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Characterization Report
Date Completed: 5/12/2009
Comments: DTSC approved the TSI Report effective 5/1/2009.

Title: US EPA Property Profile Form
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000853&doc_id=6023314
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Other Report
Date Completed: 4/28/2009
Comments: Form completed

Title: Targeted Site Investigation Work Plan
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000853&doc_id=6021455
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Characterization Workplan
Date Completed: 11/11/2008
Comments: TSI Work Plan Approved

Title: Removal Action Completion Report
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000853&doc_id=60251422
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Site Characterization Report
Date Completed: 8/2/2010
Comments:

Title: Voluntary Cleanup Agreement
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000853&enforcement_id=60199003
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Standard Voluntary Agreement
Date Completed: 6/29/2010
Comments: VCA Signed

Title: No Further Action
Title Link: https://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=60000853&enforcement_id=60195741
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: No Further Action Letter
Date Completed: 7/19/2010
Comments: finished

Title: Field Sampling
Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Fieldwork
Date Completed: 12/4/2008

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Comments:		LFR staff conducted field sampling for pesticides, herbicides, and metals at the Moore Aviation site December 2008. Soil Probe, Inc. installed soil gas monitoring probes throughout the site. Two drums containing oils waste were also overpacked and labelled. Analytical results are pending.				

Unplottable Summary

Total: 1 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID
CHMIRS	UPRR	North J street ***Control No* | *Notified Date:*** 10-7010 |	Tulare CA		821803267

Unplottable Report

Site: ***UPRR***
North J street Tulare CA

CHMIRS

Control No: 10-7010
County: Tulare County
Year: 2010
URL: https://w3.calema.ca.gov/operational/malhaz.nsf/f1841a103c102734882563e200760c4a/34abbb4a8f0787ce882577e300349c6a?OpenDocument

Notified Date:
Notified Date Time:

California Hazardous Material Incident Report System (as of 2006 to 2015)

Contained: Yes
1 Substance: Train vs. vehicle
1 Measure: N/A
1 Other:
1 Quantity: N/A
1 Type: RAILROAD
1 Pipeline:
1 Vessel >= 300 Tons:
2 Substance:
2 Quantity:
2 Measure:
2 Type:
2 Other:
2 Pipeline:
2 Vessel >= 300 Tons:
3 Substance:
3 Quantity:
3 Measure:
3 Type:
3 Other:
3 Pipeline:

3 Ves >= 300 Tons:
Incident Date: 11/22/2010
Incident Time: 100
Spill Site: Rail Road
Injuries?: No
No of Injuries:
Fatals?: No
No of Fatals:
Evacs?: No
No of Evacs:
Cleanup: Unknown
Site:
Cause: Collision
Cause Other:
Dog No:
Water: No
Water Way:
City: Tulare
County: Tulare County
ZIP:

Admin Agency: Tulare County Health Department
Notification Area: AA/CUPA,DFG-OSPR,DTSC,RWQCB,US EPA,USFWS,PUC
Location: North J street
Description: Train ID # MWCRV of 21st struck a vehicle at MP 247 on the Fresno sub-division.

Spill Report View

Water:
Document Title: SPILL Report
Spill Site: Rail Road
Type: RAILROAD

Creation Date: 11/22/2010 01:34 AM

Hazardous Materials Spill Report

Date : 11/22/2010
Time: 0134
Incident Date: 11/22/2010
Incident Time: 0100
Control Cal OES: 10-7010
Control NRC:
Contained: Yes
Waterway:
Received By:
Cleanup By: Unknown
Incident Location: North J street
Additional County:
1 Substance: Train vs. vehicle

Water Involved: No
Drink Wtr Impact:
Detail for Other:
UPRR Rim No:
DOG Unit:
RWQCB Unit: 5C

1 Qty:	=
1 Amount :	N/A
1 Measure:	N/A
1 Type:	RAILROAD
1 Other:	
1 Pipeline:	No
1 Ves >= 300 Tons:	No
2 Substance:	
2 Qty:	=
2 Amount:	
2 Measure:	
2 Type:	
2 Other:	
2 Pipeline:	No
2 Ves >= 300 Tns:	No
3 Substance:	
3 Qty:	=
3 Amount:	
3 Measure:	
3 Type:	
3 Other:	
3 Pipeline:	No
3 Ves >= 300 Tons:	No
Injuries:	No
Fatality:	No
Evacuation:	No
Known Impact:	None
Agency:	UPRR
PRS Agency:	
Sec Agency:	
Admin Agency:	Tulare County Health Department
Admin Agency 2:	
On Scene:	CHP, Fire Dept., Police Dept.
Other on Scene:	
Other Notified:	
Header Unknown:	SAN JOAQUIN VALLEY UNIFIED APCD
Site:	Rail Road
Reported Cause:	Collision
R R Crssing < 50 Ft:	
Description:	Train ID # MWCRV of 21st struck a vehicle at MP 247 on the Fresno sub-division.

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13 and E1527-21, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

National Priority List: NPL

Sites on the United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Apr 22, 2024

National Priority List - Proposed: PROPOSED NPL

Sites proposed by the United States Environmental Protection Agency (EPA), the state agency, or concerned citizens for addition to the National Priorities List (NPL) due to contamination by hazardous waste and identified by the EPA as a candidate for cleanup because it poses a risk to human health and/or the environment. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Apr 22, 2024

Deleted NPL: DELETED NPL

Sites deleted from the United States Environmental Protection Agency (EPA)'s National Priorities List. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Apr 22, 2024

SEMS List 8R Active Site Inventory: SEMS

The U.S. Environmental Protection Agency's (EPA) Superfund Program has deployed the Superfund Enterprise Management System (SEMS), which integrates multiple legacy systems into a comprehensive tracking and reporting tool. This inventory contains active sites evaluated by the Superfund program that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. This data includes SEMS sites from the List 8R Active file as well as applicable sites from the EPA's Facility Registry Service map tool.

Government Publication Date: May 22, 2024

SEMS List 8R Archive Sites: SEMS ARCHIVE

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. This data includes sites from the List 8R Archived site file.

Government Publication Date: May 22, 2024

Inventory of Open Dumps, June 1985: ODI

The Resource Conservation and Recovery Act (RCRA) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

Comprehensive Environmental Response, Compensation and Liability Information System - CERCLIS: CERCLIS

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

EPA Report on the Status of Open Dumps on Indian Lands: IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

CERCLIS - No Further Remedial Action Planned: CERCLIS NFRAP

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens: CERCLIS LIENS

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA). This database was provided by the United States Environmental Protection Agency (EPA). Refer to SEMS LIEN as the current data source for Superfund Liens.

Government Publication Date: Jan 30, 2014

RCRA CORRACTS-Corrective Action: RCRA CORRACTS

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Apr 8, 2024

RCRA non-CORRACTS TSD Facilities: RCRA TSD

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. This database includes Non-Corrective Action sites that have indicated engagement in the treatment, storage, or disposal of hazardous waste which requires a RCRA hazardous waste permit.

Government Publication Date: Apr 8, 2024

RCRA Generator List: RCRA LQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste.

Government Publication Date: Apr 8, 2024

RCRA Small Quantity Generators List: RCRA SQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Small Quantity Generators (SQGs) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Government Publication Date: Apr 8, 2024

RCRA Very Small Quantity Generators List: RCRA VSQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Very Small Quantity Generators (VSQG) generate 100 kilograms or less per month of hazardous waste, or one kilogram or less per month of acutely hazardous waste. Additionally, VSQG may not accumulate more than 1,000 kilograms of hazardous waste at any time.

Government Publication Date: Apr 8, 2024

RCRA Non-Generators: RCRA NON GEN

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Apr 8, 2024

RCRA Sites with Controls: RCRA CONTROLS

List of Resource Conservation and Recovery Act (RCRA) facilities with institutional controls in place. RCRA gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Government Publication Date: Apr 8, 2024

Federal Engineering Controls-ECs: FED ENG

List of Engineering controls (ECs) made availabe by the United States Environmental Protection Agency (EPA). ECs encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. The EC listing includes remedy component data from Superfund decision documents for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

Government Publication Date: Jun 26, 2024

Federal Institutional Controls- ICs: FED INST

List of Institutional controls (ICs) made available by the United States Environmental Protection Agency (EPA). ICs are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site. The IC listing includes remedy component data from Superfund decision documents for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

Government Publication Date: Jun 26, 2024

Land Use Control Information System: LUCIS

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

Government Publication Date: Sep 1, 2006

Institutional Control Boundaries at NPL sites: NPL IC

Boundaries of Institutional Control areas at sites on the United States Environmental Protection Agency (EPA)'s National Priorities List, or Proposed or Deleted, made available by the EPA's Shared Enterprise Geodata and Services (SEGS). United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. Institutional controls are non-engineered instruments such as administrative and legal controls that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy.

Government Publication Date: Apr 22, 2024

Emergency Response Notification System: ERNS 1982 TO 1986

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System: ERNS 1987 TO 1989

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System: ERNS

Database of oil and hazardous substances spill reports made available by the United States Coast Guard National Response Center (NRC). The NRC fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. These data contain initial incident data that has not been validated or investigated by a federal/state response agency.

Government Publication Date: Apr 28, 2024

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database: FED BROWNFIELDS

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This data is provided by the United States Environmental Protection Agency (EPA) and includes Brownfield sites from the Cleanups in My Community (CIMC) web application.

Government Publication Date: Feb 7, 2024

FEMA Underground Storage Tank Listing: FEMA UST

The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security maintains a list of FEMA owned underground storage tanks.

Government Publication Date: Dec 31, 2017

Facility Response Plan: FRP

This listing contains facilities that have submitted Facility Response Plans (FRPs) to the U.S. Environmental Protection Agency (EPA). Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit FRPs. Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments. This listing includes FRP facilities from an applicable EPA FOIA file and Homeland Infrastructure Foundation-Level Data (HIFLD) data file.

Government Publication Date: Jan 9, 2024

Delisted Facility Response Plans: DELISTED FRP

Facilities that once appeared in - and have since been removed from - the list of facilities that have submitted Facility Response Plans (FRP) to EPA. Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit Facility Response Plans (FRPs). Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments.

Government Publication Date: Jan 9, 2024

Historical Gas Stations: HIST GAS STATIONS

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

Government Publication Date: Jul 1, 1930

Petroleum Refineries: REFN

List of petroleum refineries from the U.S. Energy Information Administration (EIA) Refinery Capacity Report. Includes operating and idle petroleum refineries (including new refineries under construction) and refineries shut down during the previous year located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions. Survey locations adjusted using public data.

Government Publication Date: Feb 28, 2024

Petroleum Product and Crude Oil Rail Terminals: BULK TERMINAL

A list of petroleum product and crude oil rail terminals from the U.S. Energy Information Administration (EIA), as well as petroleum terminals sourced from the Federal Communications Commission Data hosted by the Homeland Infrastructure Foundation-Level Database. Data includes operable bulk petroleum product terminals with a total bulk shell storage capacity of 50,000 barrels or more, and/or the ability to receive volumes from tanker, barge, or pipeline; also rail terminals handling the loading and unloading of crude oil with activity between 2017 and 2018. EIA petroleum product terminal data comes from the EIA-815 Bulk Terminal and Blender Report, which includes working, shell in operation, and shell idle for several major product groupings.

Government Publication Date: Jun 6, 2024

LIEN on Property: SEMS LIEN

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) provides Lien details on applicable properties, such as the Superfund lien on property activity, the lien property information, and the parties associated with the lien.

Government Publication Date: May 22, 2024

Superfund Decision Documents: SUPERFUND ROD

This database contains a list of decision documents for Superfund sites. Decision documents serve to provide the reasoning for the choice of (or) changes to a Superfund Site cleanup plan. The decision documents include completed Records of Decision (ROD), ROD Amendments, Explanations of Significant Differences (ESD) for active and archived sites stored in the Superfund Enterprise Management System (SEMS), along with other associated memos and files. This information is maintained and made available by the U.S. Environmental Protection Agency.

Government Publication Date: Mar 27, 2024

Formerly Utilized Sites Remedial Action Program: DOE FUSRAP

The U.S. Department of Energy (DOE) established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

Government Publication Date: Mar 4, 2017

State

State Response Sites: RESPONSE

A list of identified confirmed release sites where the Department of Toxic Substances Control (DTSC) is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. This database is state equivalent NPL.

Government Publication Date: Jun 25, 2024

EnviroStor Database: ENVIROSTOR

The EnviroStor Data Management System is made available by the Department of Toxic Substances Control (DTSC). Includes Corrective Action sites, Tiered Permit sites, Historical Sites and Evaluation/Investigation sites. This database is state equivalent CERCLIS.

Government Publication Date: Jun 25, 2024

Delisted State Response Sites: DELISTED ENVS

Sites removed from the list of State Response Sites made available by the EnviroStor Data Management System, Department of Toxic Substances Control (DTSC).

Government Publication Date: Jun 25, 2024

Solid Waste Information System (SWIS): SWF/LF

The Solid Waste Information System (SWIS) database made available by the Department of Resources Recycling and Recovery (CalRecycle) contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites.

Government Publication Date: May 10, 2024

Solid Waste Disposal Sites with Waste Constituents Above Hazardous Waste Levels: SWRCB SWF

This is a list of solid waste disposal sites identified by California State Water Resources Control Board with waste constituents above hazardous waste levels outside the waste management unit.

Government Publication Date: Sep 20, 2006

Waste Management Unit Database: WMUD

The Waste Management Unit Database System tracks and inventories waste management units. CCR Title 27 contains criteria stating that Waste Management Units are classified according to their ability to contain wastes. Containment shall be determined by geology, hydrology, topography, climatology, and other factors relating to the ability of the Unit to protect water quality. Water Code Section 13273.1 requires that operators submit a water quality solid waste assessment test (SWAT) report to address leak status. The WMUDS was last updated by the State Water Resources control board in 2000.

Government Publication Date: Jan 1, 2000

EnviroStor Hazardous Waste Facilities: HWP

A list of hazardous waste facilities including permitted, post-closure and historical facilities found in the Department of Toxic Substances Control (DTSC) EnviroStor database.

Government Publication Date: Jun 25, 2024

Sites Listed in the Solid Waste Assessment Test (SWAT) Program Report: SWAT

In a 1993 Memorandum of Understanding, the State Water Resources Control Board (SWRCB) agreed to submit a comprehensive report on the Solid Waste Assessment Test (SWAT) Program to the California Integrated Waste Management Board (CIWMB). This report summarizes the work completed to date on the SWAT Program, and addresses both the impacts that leakage from solid waste disposal sites (SWDS) may have upon waters of the State and the actions taken to address such leakage.

Government Publication Date: Dec 31, 1995

Construction and Demolition Debris Recyclers: C&D DEBRIS RECY

This listing of Construction and Demolition Debris Recyclers is maintained by the California Intergrated Waste Management Board-common C&D materials include lumber, drywall, metals, masonry (brick, concrete, etc.), carpet, plastic, pipe, rocks, dirt, paper, cardboard, or green waste related to land development.

Government Publication Date: Jun 20, 2018

Recycling Centers: RECYCLING

This list of Certified Recycling Centers that are operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Jul 15, 2024

Listing of Certified Processors: PROCESSORS

This list of Certified Processors that are operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Jul 9, 2024

Listing of Certified Dropoff, Collection, and Community Service Programs: CONTAINER RECY

This list of Certified Dropoff, Collection, and Community Service Programs (non-buyback) operating under the state of California's Beverage Container Recycling Program is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Jul 15, 2024

Land Disposal Sites: LDS

Land Disposal Sites in GeoTracker, the State Water Resources Control Board (SWRCB)'s data management system. The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units. Waste management units include waste piles, surface impoundments, and landfills.

Government Publication Date: Jul 4, 2024

Leaking Underground Fuel Tank Reports: LUST

List of Leaking Underground Storage Tanks within the Cleanup Sites data in GeoTracker database. GeoTracker is the State Water Resources Control Board's (SWRCB) data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense and Site Cleanup Program) as well as permitted facilities such as operating Underground Storage Tanks. The Leak Prevention Program that overlooks LUST sites is the SWRCB in California's Environmental Protection Agency.

Government Publication Date: Jul 4, 2024

Delisted Leaking Storage Tanks: DELISTED LST

List of Leaking Underground Storage Tanks (LUST) cleanup sites removed from GeoTracker, the State Water Resources Control Board (SWRCB)'s database system, as well as sites removed from the SWRCB's list of UST Case closures.

Government Publication Date: Jul 22, 2024

Permitted Underground Storage Tank (UST) in GeoTracker: UST

List of Permitted Underground Storage Tank (UST) sites made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA).

Government Publication Date: Jun 11, 2024

Proposed Closure of Underground Storage Tank Cases: UST CLOSURE

This listing includes Proposed Closure of Underground Storage Tank (UST) Cases which are being considered for closure by either the State Water Resources Control Board at a Future Board Meeting or the Executive Director that have been posted for a 60-day public comment period, and Closure of UST Cases with Closure Denials and Approved Orders. The lists are provided by the California Water Boards.

Government Publication Date: Jul 22, 2024

Historical Hazardous Substance Storage Information Database: HHSS

The Historical Hazardous Substance Storage database contains information collected in the 1980s from facilities that stored hazardous substances. The information was originally collected on paper forms, was later transferred to microfiche, and recently indexed as a searchable database. When using this database, please be aware that it is based upon self-reported information submitted by facilities which has not been independently verified. It is unlikely that every facility responded to the survey and the database should not be expected to be a complete inventory of all facilities that were operating at that time. This database is maintained by the California State Water Resources Control Board's (SWRCB) Geotracker.

Government Publication Date: Aug 27, 2015

Statewide Environmental Evaluation and Planning System: UST SWEEPS

The Statewide Environmental Evaluation and Planning System (SWEEPS) is a historical listing of active and inactive underground storage tanks made available by the California State Water Resources Control Board (SWRCB).

Government Publication Date: Oct 1, 1994

Aboveground Storage Tanks: AST

A statewide list from 2009 of aboveground storage tanks (ASTs) made available by the Cal FIRE Office of the State Fire Marshal (OSFM). This list is no longer maintained or updated by the Cal FIRE OSFM.

Government Publication Date: Aug 31, 2009

SWRCB Historical Aboveground Storage Tanks: AST SWRCB

A list of aboveground storage tanks made available by the California State Water Resources Control Board (SWRCB). Effective January 1, 2008, the Certified Unified Program Agencies (CUPAs) are vested with the responsibility and authority to implement the Aboveground Petroleum Storage Act (APSA).

Government Publication Date: Dec 1, 2007

Oil and Gas Facility Tanks: TANK OIL GAS

Locations of oil and gas tanks that fall under the jurisdiction of the Geologic Energy Management Division of the California Department of Conservation (CalGEM) (CCR 1760). CalGEM was formerly the Division of Oil, Gas, and Geothermal Resources (DOGGR).

Government Publication Date: May 9, 2024

Delisted Storage Tanks: DELISTED TNK

This database contains a list of storage tank sites that were removed by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA) and the Cal FIRE Office of State Fire Marshal (OSFM).

Government Publication Date: Jun 24, 2024

California Environmental Reporting System (CERS) Tanks: CERS TANK

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Apr 25, 2024

Delisted California Environmental Reporting System (CERS) Tanks: DELISTED CTNK

This database contains a list of Aboveground Petroleum Storage and Underground Storage Tank sites that were removed from in the California Environmental Protection Agency (CalEPA) Regulated Site Portal.

Government Publication Date: Apr 25, 2024

Historical Hazardous Substance Storage Container Information - Facility Summary: HIST TANK

The State Water Resources Control Board maintained the Hazardous Substance Storage Containers listing and inventory in th 1980s. This facility summary lists historic tank sites where the following container types were present: farm motor vehicle fuel tanks; waste tanks; sumps; pits, ponds, lagoons, and others; and all other product tanks. This set, published in May 1988, lists facility and owner information, as well as the number of containers. This data is historic and will not be updated.

Government Publication Date: May 27, 1988

Site Mitigation and Brownfields Reuse Program Facility Sites with Land Use Restrictions: LUR

The Department of Toxic Substances Control (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents land use restrictions that are active. Some sites have multiple land use restrictions.

Government Publication Date: Jun 25, 2024

CALSITES Database: CALSITES

This historical database was maintained by the Department of Toxic Substance Control (DTSC) for more than a decade. CALSITES contains information on Brownfield properties with confirmed or potential hazardous contamination. In 2006, DTSC introduced EnviroStor as the latest Brownfields site database.

Government Publication Date: May 1, 2004

Hazardous Waste Management Program Facility Sites with Deed / Land Use Restrictions: HLUR

The Department of Toxic Substances Control (DTSC) Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Government Publication Date: Feb 18, 2021

Deed Restrictions and Land Use Restrictions: DEED

List of Deed Restrictions, Land Use Restrictions and Covenants in GeoTracker made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency. A deed restriction (land use covenant) may be required to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to residual hazardous materials.

Government Publication Date: Jul 4, 2024

Voluntary Cleanup Program: VCP

List of sites in the Voluntary Cleanup Program made available by the Department of Toxic Substances and Control (DTSC). The Voluntary Cleanup Program was designed to respond to lower priority sites. Under the Voluntary Cleanup Program, DTSC enters site-specific agreements with project proponents for DTSC oversight of site assessment, investigation, and/or removal or remediation activities, and the project proponents agree to pay DTSC's reasonable costs for those services.

Government Publication Date: Jun 25, 2024

GeoTracker Cleanup Program Sites: CLEANUP SITES

A list of Cleanup Program sites in the state of California made available by The State Water Resources Control Board (SWRCB) of the California Environmental Protection Agency (EPA). SWRCB tracks leaking underground storage tank cleanups as well as other water board cleanups.

Government Publication Date: Jul 4, 2024

Delisted Cleanup Program Sites: DELISTED CLEANUP

A list of Cleanup Program sites which were once included - and have since been removed from - the list of Cleanup Program Sites in GeoTracker. GeoTracker is the State Water Resource Control Boards' data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.
Government Publication Date: Jul 4, 2024

Delisted County Records: DELISTED COUNTY
Records removed from county or CUPA databases. Records may be removed from the county lists made available by the respective county departments because they are inactive, or because they have been deemed to be below reportable thresholds.
Government Publication Date: Jun 25, 2024

Tribal

Leaking Underground Storage Tanks on Tribal/Indian Lands: INDIAN LUST
This list of leaking underground storage tanks (LUSTs) on Tribal/Indian Lands in Region 9, which includes California, is made available by the United States Environmental Protection Agency (EPA).
Government Publication Date: May 7, 2024

Underground Storage Tanks on Tribal/Indian Lands: INDIAN UST
This list of underground storage tanks (USTs) on Tribal/Indian Lands in Region 9, which includes California, is made available by the United States Environmental Protection Agency (EPA).
Government Publication Date: May 7, 2024

Delisted Tribal Leaking Storage Tanks: DELISTED INDIAN LST
Leaking Underground Storage Tank (LUST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian LUST lists made available by the United States Environmental Protection Agency (EPA).
Government Publication Date: May 7, 2024

Delisted Tribal Underground Storage Tanks: DELISTED INDIAN UST
Underground Storage Tank (UST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian UST lists made available by the United States Environmental Protection Agency (EPA).
Government Publication Date: May 7, 2024

County

Tulare County - CUPA List: CUPA TULARE
The Certified Unified Program Agency (CUPA) unifies and consolidates under one roof the various requirements for businesses handling hazardous materials, generating or treating hazardous wastes, or operating aboveground or underground storage tanks. CUPA thereby enhances consistency, reduces duplication, and simplifies compliance for the regulated public. The Tulare County Environmental Health Division was certified as a CUPA in December, 1996.
Government Publication Date: May 13, 2023

Additional Environmental Record Sources

Federal

PFAS Greenhouse Gas Emissions Data: PFAS GHG
The U.S. Environmental Protection Agency's Greenhouse Gas Reporting Program (GHGRP) collects Greenhouse Gas (GHG) data from large emitting facilities (25,000 metric tons of carbon dioxide equivalent (CO2e) per year), and suppliers of fossil fuels and industrial gases that results in GHG emissions when used. Includes GHG emissions data for facilities that emit or have emitted since 2010 chemicals identified in EPA's CompTox Chemicals Dashboard list of PFAS without explicit structures and list of PFAS structures by DSSTox. PFAS emissions data has been identified for facilities engaged in the following industrial processes: Aluminum Production (GHGRP Subpart F), HCFC-22 Production and HFC-23 Destruction (Subpart O), Electronics Manufacturing (Subpart I), Fluorinated Gas Production (Subpart L), Magnesium Production (Subpart T), Electrical Transmission and Distribution Equipment Use (Subpart DD), and Manufacture of Electric Transmission and Distribution Equipment (Subpart SS). Over time, other industrial processes with required GHGRP reporting may include PFAS emissions data and the list of reportable gases may change over time.

Government Publication Date: May 9, 2024

On-Scene Coordinator Response Sites: OSC RESPONSE

This list of On-Scene Coordinator (OSC) Response Sites is provided by the U.S. Environmental Protection Agency (EPA). OSCs are the federal officials responsible for monitoring or directing responses to all oil spills and hazardous substance releases reported to the federal government. OSCs coordinate all federal efforts with, and provide support and information to local, state, and regional response communities. An OSC is an agent of either EPA or the U.S. Coast Guard (USCG), depending on where the incident occurs. EPA's OSCs have primary responsibility for spills and releases to inland areas and waters. USCG OSCs have responsibility for coastal waters and the Great Lakes. In general, an OSC has the following key responsibilities during and after a response: Assessment, Monitoring, Response Assistance, and Evaluation.

Government Publication Date: Apr 4, 2024

Facility Registry Service/Facility Index: FINDS/FRS

The Facility Registry Service (FRS) is a centrally managed database that identifies facilities, sites, or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, and data collected from EPA's Central Data Exchange registrations and data management personnel. This list is made available by the U.S. Environmental Protection Agency (EPA).

Government Publication Date: Apr 26, 2024

Toxics Release Inventory (TRI) Program: TRIS

The U.S. Environmental Protection Agency's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of toxic chemicals from U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. There are currently 770 individually listed chemicals and 33 chemical categories covered by the TRI Program. Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual reporting forms for each chemical. Note that the TRI chemical list does not include all toxic chemicals used in the U.S. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment. This database includes TRI Reporting Data for calendar years 1987 through 2021 and Preliminary Data for 2022.

Government Publication Date: Sep 20, 2023

PFOA/PFOS Contaminated Sites: PFAS NPL

This list of Superfund Sites with Per- and Polyfluoroalkyl Substances (PFAS) detections is made available by the U.S. Environmental Protection Agency (EPA) in their PFAS Analytic Tools data, previously the list was obtained by EPA FOIA requests. EPA's Office of Land and Emergency Management and EPA Regional Offices maintain what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment. Limitations: Detections of PFAS at National Priorities List (NPL) sites do not mean that people are at risk from PFAS, are exposed to PFAS, or that the site is the source of the PFAS. The information in the Superfund NPL and Superfund Alternative Agreement (SAA) PFAS detection site list is years old and may not be accurate today. Site information such as site name, site ID, and location has been confirmed for accuracy; however, PFAS-related information such as media sampled, drinking water being above the health advisory, or mitigation efforts has not been verified. For Federal Facilities data, the other Federal agencies (OFA) are the lead agency for their data and provided them to EPA.

Government Publication Date: Jun 20, 2024

Federal Agency Locations with Known or Suspected PFAS Detections: PFAS FED SITES

List of Federal agency locations with known or suspected detections of Per- and Polyfluoroalkyl Substances (PFAS), made available by the U.S. Environmental Protection Agency (EPA) in their PFAS Analytic Tools data. EPA outlines that these data are gathered from several federal entities, such as the Federal Superfund program, Department of Defense (DOD), National Aeronautics and Space Administration, Department of Transportation, and Department of Energy. The dates this data was extracted for the PFAS Analytic Tools range from 2022 to 2024. Sites on this list do not necessarily reflect the source/s of PFAS contamination and detections do not indicate level of risk or human exposure at the site. Agricultural notifications in this data are limited to DOD sites only. At this time, the EPA is aware that this list is not comprehensive of all Federal agencies.

Government Publication Date: Apr 1, 2024

SSEHRI PFAS Contamination Sites: PFAS SSEHRI

This PFAS Contamination Site Tracker database is compiled by the PFAS Project Lab, part of the Social Science Environmental Health Research Institute (SSEHRI) at Northeastern University. According to the SSEHRI, the database records qualitative and quantitative data from each known site of PFAS contamination, including timeline of discovery, sources, levels, health impacts, community response, and government response. The goal of this database is to compile information and support public understanding of the rapidly unfolding issue of PFAS contamination. All data presented was extracted from government websites, news articles, or publicly available documents. Locations for the Known PFAS Contamination Sites are sourced from the PFAS Sites and Community Resources Map by the PFAS-REACH team, credited to PFAS Project Lab, Silent Spring Institute, and PFAS Exchange. Disclaimer: The source conveys the data undergoes regular updates as new information becomes available, some sites may be missing and/or contain information that is incorrect or outdated, as well as their information represents all contamination sites SSEHRI is aware of, not all possible contamination sites. This data is not intended to be used for legal purposes. Access the following source link for the most current information: https://pfasproject.com/pfas-sites-and-community-resources/

Government Publication Date: Jun 27, 2024

National Response Center PFAS Spills: ERNS PFAS

This Per- and Poly-Fluoroalkyl Substances (PFAS) Spills dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. The National Response Center (NRC), operated by the U.S. Coast Guard, is the designated federal point of contact for reporting all oil, chemical, and other discharges into the environment, for the United States and its territories. This dataset contains NRC spill information from 1990 to the present that is restricted to records associated with PFAS and PFAS-containing materials. Incidents are filtered to include only records with a "Material Involved" or "Incident Description" related to Aqueous Film Forming Foam (AFFF). The keywords used to filter the data included "AFFF," "Fire Fighting Foam," "Aqueous Film Forming Foam," "Fire Suppressant Foam, "PFAS," "PERFL," "PFOA," "PFOS," and "Genx." Limitations: The data from the NRC website contains initial incident data that has not been validated or investigated by a federal/state response agency. Keyword searches may misidentify some incident reports that do not contain PFAS. This dataset should also not be considered to be exhaustive of all PFAS spills/release incidents.

Government Publication Date: Apr 17, 2024

PFAS NPDES Discharge Monitoring: PFAS NPDES

This list of National Pollutant Discharge Elimination System (NPDES) permitted facilities with required monitoring for Per- and Polyfluoroalkyl (PFAS) Substances is made available via the U.S. Environmental Protection Agency (EPA)'s PFAS Analytic Tools. Any point-source wastewater discharger to waters of the United States must have a NPDES permit, which defines a set of parameters for pollutants and monitoring to ensure that the discharge does not degrade water quality or impair human health. This list includes NPDES permitted facilities associated with permits that monitor for Per- and Polyfluoroalkyl Substances (PFAS), limited to the years 2007 - present. EPA further advises the following regarding these data: currently, fewer than half of states have required PFAS monitoring for at least one of their permittees, and fewer states have established PFAS effluent limits for permittees. For states that may have required monitoring, some reporting and data transfer issues may exist on a state-by-state basis.

Government Publication Date: May 6, 2024

Perfluorinated Alkyl Substances (PFAS) from Toxic Release Inventory: PFAS TRI

List of Toxics Release Inventory (TRI) facilities at which the reported chemical is a per- or polyfluoroalkyl (PFAS) substance included in the U.S. Environmental Protection Agency's (EPA) consolidated PFAS Master List of PFAS Substances. Encompasses Toxics Release Inventory records included in the EPA PFAS Analytic Tools. The EPA's TRI database currently tracks information on disposal or releases of 770 individually listed toxic chemicals and 33 chemical categories from thousands of U.S. facilities and details about how facilities manage those chemicals through recycling, energy recovery, and treatment. This listing includes TRI Reporting Data for calendar years 1987 through 2021 and Preliminary Data for 2022.

Government Publication Date: Sep 20, 2023

Perfluorinated Alkyl Substances (PFAS) Water Quality: PFAS WATER

The Water Quality Portal (WQP) is a cooperative service sponsored by the United States Geological Survey (USGS), the Environmental Protection Agency (EPA), and the National Water Quality Monitoring Council (NWQMC). This listing includes records from the Water Quality Portal where the characteristic (environmental measurement) is in the Environmental Protection Agency (EPA)'s consolidated Master List of PFAS Substances.

Government Publication Date: Jul 20, 2020

PFAS TSCA Manufacture and Import Facilities: PFAS TSCA

The U.S. Environmental Protection Agency (EPA) issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. This list is specific only to TSCA Manufacture and Import Facilities with reported per- and poly-fluoroalkyl (PFAS) substances. Data file is sourced from EPA's PFAS Analytic Tools TSCA dataset which includes CDR/Inventory Update Reporting data from 1998 up to 2020. Disclaimer: This data file includes production and importation data for chemicals identified in EPA's CompTox Chemicals Dashboard list of PFAS without explicit structures and list of PFAS structures in DSSTox. Note that some regulations have specific chemical structure requirements that define PFAS differently than the lists in EPA's CompTox Chemicals Dashboard. Reporting information on manufactured or imported chemical substance amounts should not be compared between facilities, as some companies claim Chemical Data Reporting Rule data fields for PFAS information as Confidential Business Information.

Government Publication Date: Jan 5, 2023

PFAS Waste Transfers from RCRA e-Manifest : PFAS E-MANIFEST

This Per- and Poly-Fluoroalkyl Substances (PFAS) Waste Transfers dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. Every shipment of hazardous waste in the U.S. must be accompanied by a shipment manifest, which is a critical component of the cradle-to-grave tracking of wastes mandated by the Resource Conservation and Recovery Act (RCRA). According to the EPA, currently no Federal Waste Code exists for any PFAS compounds. To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: • PFAS • PFOA • PFOS • PERFL • AFFF • GENX • GEN-X (plus the Vermont state-specific waste codes). Limitations: Amount or concentration of PFAS being transferred cannot be determined from the manifest information. Keyword searches may misidentify some manifest records that do not contain PFAS. This dataset should also not be considered to be exhaustive of all PFAS waste transfers.

Government Publication Date: Apr 29, 2024

PFAS Industry Sectors: PFAS IND

This Per- and Poly-Fluoroalkyl Substances (PFAS) Industry Sectors dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. The EPA developed the dataset from various sources that show which industries may be handling PFAS including: EPA's Enforcement and Compliance History Online (ECHO) records restricted to potential PFAS-handling industry sectors; ECHO records for Fire Training Sites identified where fire-fighting foam may have been used in training exercises; and 14 CFR Part 139 Airports compiled from historic and current records from the FAA Airport Data and Information Portal. Since July 2006, all certificated Part 139 Airports are required to have fire-fighting foam onsite that meet certain military specifications, which to date have been fluorinated (Aqueous Film Forming Foam). Limitations: Inclusion in this dataset does not indicate that PFAS are being manufactured, processed, used, or released by the facility. Listed facilities potentially handle PFAS based on their industrial profile, but are unconfirmed by the EPA. Keyword searches in ECHO for Fire Training sites may misidentify some facilities and should not be considered to be an exhaustive list of fire training facilities in the U.S.

Government Publication Date: Jul 1, 2024

Hazardous Materials Information Reporting System: HMIRS

The Hazardous Materials Incident Reporting System (HMIRS) database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.

Government Publication Date: May 29, 2024

National Clandestine Drug Labs: NCDL

The U.S. Department of Justice ("the Department"), Drug Enforcement Administration (DEA), provides this data as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy.

Government Publication Date: Nov 30, 2023

Toxic Substances Control Act: TSCA

The U.S. Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule. The CDR enables EPA to collect and publish information on the manufacturing, processing, and use of commercial chemical substances and mixtures (referred to hereafter as chemical substances) on the TSCA Chemical Substance Inventory (TSCA Inventory). This includes current information on chemical substance production volumes, manufacturing sites, and how the chemical substances are used. This information helps the Agency determine whether people or the environment are potentially exposed to reported chemical substances. EPA publishes submitted CDR data that is not Confidential Business Information (CBI). EPA CDR collections occur approximately every four years and reporting requirements change per collection.

Government Publication Date: May 12, 2022

Hist TSCA: HIST TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The 2006 IUR data summary report includes information about chemicals manufactured or imported in quantities of 25,000 pounds or more at a single site during calendar year 2005. In addition to the basic manufacturing information collected in previous reporting cycles, the 2006 cycle is the first time EPA collected information to characterize exposure during manufacturing, processing and use of organic chemicals. The 2006 cycle also is the first time manufacturers of inorganic chemicals were required to report basic manufacturing information.

Government Publication Date: Dec 31, 2006

FTTS Administrative Case Listing: FTTS ADMIN

An administrative case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

FTTS Inspection Case Listing: FTTS INSP

An inspection case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

Potentially Responsible Parties List: PRP

Early in the site cleanup process, the U.S. Environmental Protection Agency (EPA) conducts a search to find the Potentially Responsible Parties (PRPs). The EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site. This listing contains PRPs, Noticed Parties, at sites in the EPA's Superfund Enterprise Management System (SEMS).

Government Publication Date: Apr 22, 2024

State Coalition for Remediation of Drycleaners Listing: SCRD DRYCLEANER

The State Coalition for Remediation of Drycleaners (SCRD) was established in 1998, with support from the U.S. Environmental Protection Agency (EPA) Office of Superfund Remediation and Technology Innovation. Coalition members are states with mandated programs and funding for drycleaner site remediation. Current members are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin. Since 2017, the SCRD no longer maintains this data, refer to applicable state source data where available.

Government Publication Date: Nov 08, 2017

Integrated Compliance Information System (ICIS): ICIS

The Integrated Compliance Information System (ICIS) database contains integrated enforcement and compliance information across most of U.S. Environmental Protection Agency's (EPA) programs. The vision for ICIS is to replace EPA's independent databases that contain enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions and a subset of the Permit Compliance System (PCS), which supports the National Pollutant Discharge Elimination System (NPDES). This information is maintained by the EPA Headquarters and at the Regional offices. A future release of ICIS will completely replace PCS and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities that support compliance and enforcement programs, including incident tracking, compliance assistance, and compliance monitoring.

Government Publication Date: Apr 13, 2024

Drycleaner Facilities: FED DRYCLEANERS

A list of drycleaner facilities from Enforcement and Compliance History Online (ECHO) data as made available by the U.S. Environmental Protection Agency (EPA), sourced from the ECHO Exporter file. The EPA tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

Government Publication Date: May 5, 2024

Delisted Drycleaner Facilities: DELISTED FED DRY

List of sites removed from the list of Drycleaner Facilities (sites in the EPA's Integrated Compliance Information System (ICIS) with NAIC or SIC codes identifying the business as a drycleaner establishment).

Government Publication Date: May 5, 2024

Formerly Used Defense Sites: FUDS

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DOD) is responsible for an environmental restoration. The FUDS Annual Report to Congress (ARC) is published by the U.S. Army Corps of Engineers (USACE). This data is compiled from the USACE's Geospatial FUDS data layers and Homeland Infrastructure Foundation-Level Data (HIFLD) FUDS dataset which applies to the Fiscal Year 2021 FUDS Inventory.

Government Publication Date: May 15, 2023

FUDS Munitions Response Sites: FUDS MRS

Boundaries of Munitions Response Sites (MRS), published with the Formerly Used Defense Sites (FUDS) Annual Report to Congress (ARC) by the U.S. Army Corps of Engineers (USACE). An MRS is a discrete location within a Munitions response area (MRA) that is known to require a munitions response. An MRA means any area on a defense site that is known or suspected to contain unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC). This data is compiled from the USACE's Geospatial MRS data layers and Homeland Infrastructure Foundation-Level Data (HIFLD) MRS dataset.

Government Publication Date: May 15, 2023

Former Military Nike Missile Sites: FORMER NIKE

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

Government Publication Date: Dec 2, 1984

PHMSA Pipeline Safety Flagged Incidents: PIPELINE INCIDENT

This list of flagged pipeline incidents is made available by the U.S. Department of Transportation (US DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA regulations require incident and accident reports for five different pipeline system types. Accidents reported on hazardous liquid gravity lines (§195.13) and reporting-regulated-only hazardous liquid gathering lines (§195.15) and incidents reported on Type R gas gathering (§192.8(c)) are not included in the flagged incident file data.

Government Publication Date: May 6, 2024

Material Licensing Tracking System (MLTS): MLTS

A list of sites that store radioactive material subject to the Nuclear Regulatory Commission (NRC) licensing requirements. This list is maintained by the NRC. As of September 2016, the NRC no longer releases location information for sites. Site locations were last received in July 2016.

Government Publication Date: May 11, 2021

Historic Material Licensing Tracking System (MLTS) sites: HIST MLTS

A historic list of sites that have inactive licenses and/or removed from the Material Licensing Tracking System (MLTS). In some cases, a site is removed from the MLTS when the state becomes an "Agreement State". An Agreement State is a State that has signed an agreement with the Nuclear Regulatory Commission (NRC) authorizing the State to regulate certain uses of radioactive materials within the State.

Government Publication Date: Jan 31, 2010

Mines Master Index File: MINES

The Master Index File (MIF) is provided by the United States Department of Labor, Mine Safety and Health Administration (MSHA). This file, which was originally created in the 1970's, contained many Mine-IDs that were invalid. MSHA removes invalid IDs from the MIF upon discovery. MSHA applicable data includes the following: all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970; mine addresses for all mines in the database except for Abandoned mines prior to 1998 from MSHA's legacy system (addresses may or may not correspond with the physical location of the mine itself); violations that have been assessed penalties as a result of MSHA inspections beginning on 1/1/2000; and violations issued as a result of MSHA inspections conducted beginning on 1/1/2000.

Government Publication Date: Feb 5, 2024

Surface Mining Control and Reclamation Act Sites: SMCRA

This inventory of land and water impacted by past mining (primarily legacy coal mining operations) is maintained by the U.S. Department of the Interior's Office of Surface Mining Reclamation and Enforcement (OSMRE), as it provides information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). This inventory contains information on the type and extent of Abandoned Mine Land (AML) Problems, as well as information on the cost associated with the reclamation of those problems. The data is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed. Disclaimer: Per the OSMRE, States and tribes who enter their data into e-AMLIS (AML Inventory System) may truncate their latitude and longitude so the precise location of usually dangerous AMLs is not revealed in an effort to protect the public from searching for these AMLs, most of which are on private property. If more precise location information is needed, please contact the applicable state/tribe of interest.

Government Publication Date: May 20, 2024

Mineral Resource Data System: MRDS

The Mineral Resource Data System (MRDS) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS. The USGS has ceased systematic updates of the MRDS database with their focus more recently on deposits of critical minerals while providing a well-documented baseline of historical mine locations from USGS topographic maps.

Government Publication Date: Mar 15, 2016

DOE Legacy Management Sites: LM SITES

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) currently manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The LM manages sites with diverse regulatory drivers (statutes or programs that direct cleanup and management requirements at DOE sites) or as part of internal DOE or congressionally-recognized programs, such as but not limited to: Formerly Utilized Sites Remedial Action Program (FUSRAP), Uranium Mill Tailings Radiation Control Act (UMTRCA Title I, Tile II), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Decontamination and Decommissioning (D&D), Nuclear Waste Policy Act (NWPA). This site listing includes data exported from the DOE Office of LM's Geospatial Environmental Mapping System (GEMS). GEMS Data disclaimer: The DOE Office of LM makes no representation or warranty, expressed or implied, regarding the use, accuracy, availability, or completeness of the data presented herein.

Government Publication Date: Dec 12, 2023

Alternative Fueling Stations: ALT FUELS

This list of alternative fueling stations is sourced from the Alternative Fuels Data Center (AFDC). The U.S. Department of Energy's Office of Energy Efficiency & Renewable Energy launched the AFDC in 1991 as a repository for alternative fuel vehicle performance data, which provides a wealth of information and data on alternative and renewable fuels, advanced vehicles, fuel-saving strategies, and emerging transportation technologies. The data includes Biodiesel (B20 and above), Compressed Natural Gas (CNG), Electric, Ethanol (E85), Hydrogen, Liquefied Natural Gas (LNG), Propane (LPG), and Renewable Diesel (R20 and above) fuel type locations.

Government Publication Date: Apr 30, 2024

Superfunds Consent Decrees: CONSENT DECREES

This list of Superfund consent decrees is provided by the Department of Justice, Environment & Natural Resources Division (ENRD) through a Freedom of Information Act (FOIA) applicable file. This listing includes Cases filed since 2010 limited to the following: Consent Decrees for CERCLA or Superfund Sites filed and/or as proposed within the ENRD's Case Management System (CMS); and applicable ENRD's Environmental Defense Section (EDS) CERCLA Cases with "Consent" in History Note. CMS may not reflect the latest developments in a case, nor can the agency guarantee the accuracy of the data. ENRD Disclaimer: Congress excluded three discrete categories of law enforcement and national security records from the requirements of the FOIA; response is limited to those records that are subject to the requirements of the FOIA; however, this should not be taken as an indication that excluded records do, or do not, exist.

Government Publication Date: Jun 26, 2024

Air Facility System: AFS

This EPA retired Air Facility System (AFS) dataset contains emissions, compliance, and enforcement data on stationary sources of air pollution. Regulated sources cover a wide spectrum; from large industrial facilities to relatively small operations such as dry cleaners. AFS does not contain data on facilities that are solely asbestos demolition and/or renovation contractors, or landfills. ECHO Clean Air Act data from AFS are frozen and reflect data as of October 17, 2014; the EPA retired this system for Clean Air Act stationary sources and transitioned to ICIS-Air.

Government Publication Date: Oct 17, 2014

Registered Pesticide Establishments: SSTS

This national list of active EPA-registered foreign and domestic pesticide and/or device-producing establishments is based on data from the Section Seven Tracking System (SSTS). The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 7 requires that each producing establishment must place its EPA establishment number on the label or immediate container of each pesticide, active ingredient or device produced. An EPA establishment number on a pesticide product label identifies the EPA registered location where the product was produced. The list of establishments is made available by the U.S. Environmental Protection Agency (EPA).

Government Publication Date: Feb 29, 2024

Polychlorinated Biphenyl (PCB) Transformers: PCBT

Locations of Transformers Containing Polychlorinated Biphenyls (PCBs) registered with the United States Environmental Protection Agency. PCB transformer owners must register their transformer(s) with EPA. Although not required, PCB transformer owners who have removed and properly disposed of a registered PCB transformer may notify EPA to have their PCB transformer de-registered. Data made available by EPA.

Government Publication Date: Oct 15, 2019

Polychlorinated Biphenyl (PCB) Notifiers: PCB

Facilities included in the national list of facilities that have notified the United States Environmental Protection Agency (EPA) of Polychlorinated Biphenyl (PCB) activities. Any company or person storing, transporting or disposing of PCBs or conducting PCB research and development must notify the EPA and receive an identification number.

Government Publication Date: May 23, 2024

State

PFAS Sampling Locations: PFAS SAMPLING

This data is sourced from the State Water Board's GeoTracker Per- and Polyfluoroalkyl Substances (PFAS) Map tool which contains individual sampling points (i.e., soil boring, groundwater monitoring well, drinking water well for municipal drinking water systems, etc.) or a site location with PFAS analytical data. Includes analytical results that are finalized and submitted electronically by the Responsible Parties via GeoTracker's Electronic Submittal of Information Portal, and after it's accepted by a Regional Water Quality Control Board.

Government Publication Date: Jun 28, 2024

Dry Cleaning Facilities: DRYCLEANERS

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial, linen supply, commercial laundry, dry cleaning and pressing machines - Coin Operated Laundry and Dry Cleaning. This is provided by the Department of Toxic Substance Control.

Government Publication Date: Dec 20, 2021

Delisted Drycleaners: DELISTED DRYCLEANERS

Sites removed from the list of drycleaner related facilities that have EPA ID numbers, made available by the California Department of Toxic Substance Control.

Government Publication Date: Jan 31, 2022

Non-Toxic Dry Cleaning Incentive Program: DRYC GRANT

A list of grant recipients of the Non-Toxic Dry Cleaning Incentive Program made available by the California Air Resources Board (CARB). The program provides grants to eligible dry cleaning businesses to assist them in transitioning away from PERC machines to alternative non-toxic and non-smog forming technologies.

Government Publication Date: Jan 31, 2022

PFAS GeoTracker Cleanup Sites: PFAS GT CLEANUPS

A list of applicable cleanup sites from the State Water Resources Control Board's (SWRCB) GeoTracker data management system where one or more of the potential contaminants of concern are identified in the PFAS Master List of PFAS Substances made available by the Environmental Protection Agency (US EPA).

Government Publication Date: Jul 4, 2024

PFOA/PFOS Groundwater: PFAS GW

A list of water wells from the Groundwater Ambient Monitoring and Assessment Program (GAMA) Groundwater Information System with the groundwater chemical perfluorooctanoic acid (PFOA) (NL = 0.014 UG/L) or perfluorooctanoic sulfonate (PFOS) (NL = 0.013 UG/L). The GAMA Groundwater Information System search is made available by California Water Boards.

Government Publication Date: Jun 23, 2024

PFAS Investigations: PFAS INVEST

This list of potential Per- and Polyfluoroalkyl Substance (PFAS) sites is compiled from the California State Water Resources Control Board's (SWRCB) PFAS Investigations Map tool. The SWRCB issued investigative orders, per California Water Code (CWC) Section 13267 and/or 13383, to these sites. Orders were also issued to the public water systems to sample wells in the vicinity of these locations. Military facilities have been identified by the Department of Defense (DOD) as part of their efforts to investigate PFAS per the Defense Environmental Restoration Program (DERP) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The data includes locations for Airports, Chrome Plating Facilities, Landfills, Publicly Owned Treatment Works, Refineries and Bulk Terminals, DOD Facilities, and Monitored Drinking Water Wells being investigated for potential PFAS.

Government Publication Date: Jan 23, 2024

Hazardous Waste and Substances Site List - Site Cleanup: HWSS CLEANUP

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. This list is published by California Department of Toxic Substance Control.

Government Publication Date: Mar 15, 2023

Toxic Pit Cleanup Act Sites: TOXIC PITS

The Toxic Pits Cleanup Act (TPCA) list identifies sites suspected of containing hazardous substances where cleanup has not yet been completed. This list was maintained by the State Water Resources Control Board (SWRCB), is not longer maintained, and updates are not planned.

Government Publication Date: Jul 1, 1995

List of Hazardous Waste Facilities Subject to Corrective Action: DTSC HWF

This is a list of hazardous waste facilities identified in Health and Safety Code (HSC) § 25187.5. These facilities are those where Department of Toxic Substances Control (DTSC) has taken or contracted for corrective action because a facility owner/operator has failed to comply with a date for taking corrective action in an order issued under HSC § 25187, or because DTSC determined that immediate corrective action was necessary to abate an imminent or substantial endangerment.

Government Publication Date: Jul 18, 2016

EnviroStor Inspection, Compliance, and Enforcement: INSP COMP ENF

A list of permitted facilities with inspections and enforcements tracked by the California Department of Toxic Substance Control's (DTSC) EnviroStor data management system.

Government Publication Date: Nov 23, 2023

School Property Evaluation Program Sites: SCH

A list of sites registered with The Department of Toxic Substances Control (DTSC) School Property Evaluation and Cleanup (SPEC) Division. SPEC is responsible for assessing, investigating and cleaning up proposed school sites. The Division ensures that selected properties are free of contamination or, if the properties were previously contaminated, that they have been cleaned up to a level that protects the students and staff who will occupy the new school.

Government Publication Date: Jun 25, 2024

California Hazardous Material Incident Report System (CHMIRS): CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS). This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Apr 23, 2024

Historical California Hazardous Material Incident Report System (CHMIRS): HIST CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS) prior to 1993. This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Jan 1, 1993

Handlers from Hazardous Waste Manifest Data: HAZNET

A list of handlers not otherwise classified as Treatment, Storage, Disposal facilities (TSDF) or generators from the facilities and manifests data made available by the California Department of Toxic Substances Control (DTSC) in their Hazardous Waste Tracking System (HWTS).

Government Publication Date: Oct 24, 2016

Generators from Hazardous Waste Manifest Data: HAZ GEN

List of handlers listed as having generated waste from the facilities and manifests data made available by the California Department of Toxic Substances Control (DTSC) in their Hazardous Waste Tracking System (HWTS).

Government Publication Date: Dec 31, 2017

TSDF from Hazardous Waste Manifest Data: HAZ TSD

List of Treatment, Storage, and Disposal Facilities (TSDFs) from the facilities and manifests data made available by the California Department of Toxic Substances Control (DTSC) in their Hazardous Waste Tracking System (HWTS).

Government Publication Date: Dec 31, 2017

Historical Hazardous Waste Manifest Data: HIST MANIFEST

A list of historic hazardous waste manifests received by the Department of Toxic Substances Control (DTSC) from year the 1980 to 1992. The volume of manifests is typically 900,000 - 1,000,000 annually, representing approximately 450,000 - 500,000 shipments.

Government Publication Date: Dec 31, 1992

DTSC Registered Hazardous Waste Transporters: HW TRANSPORT

The California Department of Toxic Substances Control (DTSC) maintains this list of Registered Hazardous Waste Transporters.

Government Publication Date: Jul 15, 2024

Registered Waste Tire Haulers: WASTE TIRE

This list of registered waste tire haulers is maintained by the California Department of Resources Recycling and Recovery.

Government Publication Date: Jul 22, 2024

California Medical Waste Management Program Facility List: MEDICAL WASTE

This list of Medical Waste Management Program Facilities is maintained by the California Department of Public Health. The Medical Waste Management Program (MWMP) regulates the generation, handling, storage, treatment, and disposal of medical waste by providing oversight for the implementation of the Medical Waste Management Act (MWMA). The MWMP permits and inspects all medical waste off-site treatment facilities, medical waste transporters, and medical waste transfer stations. This list contains transporters, treatment, and transfer facilities.

Government Publication Date: Apr 15, 2024

Historical Cortese List: HIST CORTESE

List of sites which were once included on the Cortese list. The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements for providing information about the location of hazardous sites.

Government Publication Date: Nov 13, 2008

Cease and Desist Orders and Cleanup and Abatement Orders: CDO/CAO

The California Environment Protection Agency "Cortese List" of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO). This list contains many CDOs and CAOs that do NOT concern the discharge of wastes that are hazardous materials. Many of the listed orders concern, as examples, discharges of domestic sewage, food processing wastes, or sediment that do not contain hazardous materials, but the Water Boards' database does not distinguish between these types of orders.

Government Publication Date: Dec 6, 2021

California Environmental Reporting System (CERS) Hazardous Waste Sites: CERS HAZ

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Apr 25, 2024

Delisted Environmental Reporting System (CERS) Hazardous Waste Sites: DELISTED HAZ

This database contains a list of sites that were removed from the California Environmental Protection Agency (CalEPA) in the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator.

Government Publication Date: Nov 29, 2018

Sites in GeoTracker: GEOTRACKER

GeoTracker is the State Water Resource Control Boards' data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater. This is a list of sites in GeoTracker that aren't otherwise categorized as LUST, Land Disposal Sites (LDS), Cleanup Sites, or sites having Waste Discharge Requirements (WDR). This listing includes program types such as Underground Injection Control (UIC), Confined Animal Facilities (CAF), Irrigated Lands Regulatory Program, plans, and non-case information.

Government Publication Date: Jul 4, 2024

Mines Listing: MINE

This list includes mine site locations extracted from the Mines Online database, maintained by the California Department of Conservation. Mines Online (MOL) is an interactive web map designed with GIS features that provide information such as the mine name, mine status, commodity sold, location, and other mine specific data. Please note: Mine location information is provided to assist experts in determining the location of mine operators in accordance with California Civil Code section 1103.4 and reflects information reported by mine operators in annual reports provided under Public Resources Code section 2207. While the Division of Mine Reclamation (DMR) attempts to populate MOL with accurate location information, the DMR cannot guarantee the accuracy of operator reported location information.

Government Publication Date: Jun 16, 2023

Recorded Environmental Cleanup Liens: LIEN

The California Department of Toxic Substance Control (DTSC) maintains this list of liens placed upon real properties. A lien is utilized by the DTSC to obtain reimbursement from responsible parties for costs associated with the remediation of contaminated properties.

Government Publication Date: Dec 18, 2023

Waste Discharge Requirements: WASTE DISCHG

List of sites in California State Water Resources Control Board (SWRCB) Waste Discharge Requirements (WDRs) Program in California, made available by the SWRCB via GeoTracker. The WDR program regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Government Publication Date: Jul 4, 2024

Toxic Pollutant Emissions Facilities: EMISSIONS

A list of criteria and toxic pollutant emissions data for facilities in California made available by the California Environmental Protection Agency - Air Resources Board (ARB). Risk data may be based on previous inventory submittals. The toxics data are submitted to the ARB by the local air districts as requirement of the Air Toxics "Hot Spots" Program.

Government Publication Date: Dec 31, 2021

Clandestine Drug Lab Sites: CDL

The Department of Toxic Substances Control (DTSC) maintains a listing of drug lab sites. DTSC is responsible for removal and disposal of hazardous substances discovered by law enforcement officials while investigating illegal/clandestine drug laboratories.

Government Publication Date: Jan 19, 2021

Tribal

No Tribal additional environmental record sources available for this State.

County

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

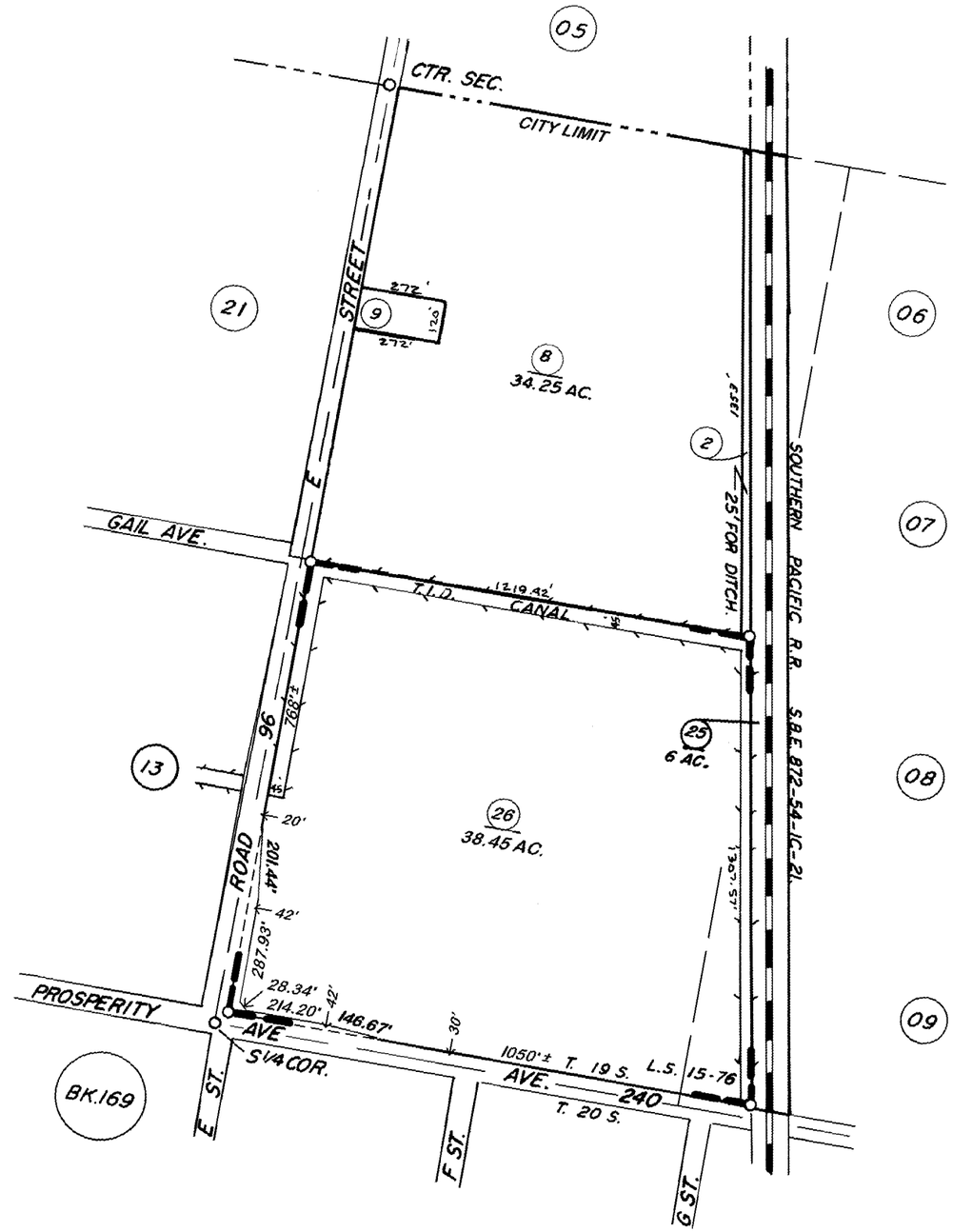
EXHIBIT C-2

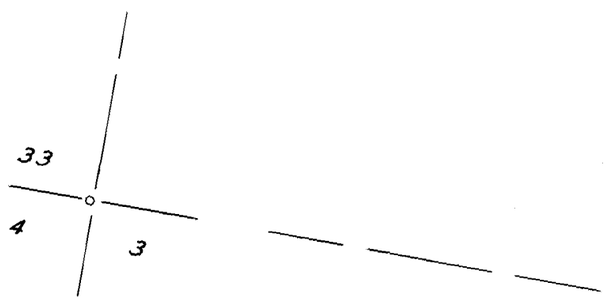
GENERAL PUBLIC RECORDS

POR. S. 1/2 SEC. 34, T. 19S., R. 24E., M.D.B.&M.

TAX CODE AREA
005-056
005-121

164-1





RECORD OF SURVEY, L.S. 15-76

1" = 400'

NOTE — ASSESSOR'S BLOCK NUMBERS SHOWN IN ELLIPSES
ASSESSOR'S PARCEL NUMBERS SHOWN IN CIRCLES

CITY OF TULARE
ASSESSOR'S MAPS BK. 164, PG. 10.
COUNTY OF TULARE, CALIF.

REVISED: 07/09/2015
REASON: 2015-0015962
CAD TECH: RLW

COMPLY WITH STATE AND LOCAL SUBDIVISION ORDINANCES. NO LIABILITY IS ASSUMED FOR THE USE OF THE INFORMATION HEREON. R & T CODE SEC. 327, 408.3, ETC.

APPENDIX D

INTERVIEW RECORDS

RECORD OF COMMUNICATION						
Project Name: Proposed Development			Location (city): Tulare, California			
Communication with: Steve Whitten						
Of: Owner of Subject Property						
Location: Tulare, CA			Phone: 559 358-0242			
Communication via	**X**	Telephone		Letter		In Person
Recorded By: Paul Humphrey			Of: Paul Humphrey, EP			
At: (time): 0830			On (date): August 7, 2024			
Re: Property Use						
Summary of Communication: Steve Whitten was not aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the Subject Property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the Subject Property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.						
Conclusions/Required Action/Follow-up: None						

RECORD OF COMMUNICATION						
Project Name: Proposed Development			Location (city): Tulare, California			
Communication with: Kyle Wright						
Of: RWQCB						
Location: Tulare, CA			Phone: 559 445-5579			
Communication via	**X**	Telephone		Letter		In Person
Recorded By: Paul Humphrey			Of: Paul Humphrey, EP			
At: (time): 0945			On (date): August 13, 2024			
Re: Property Use						
Summary of Communication: According to Mr. Wright, all wells at the east adjoining former bulk fuel/oil facility were dry at the time of sampling in January 2017 and the owner will be required to provide a workplan to fully evaluate the remaining contamination. He indicated this will include installation of new monitoring wells at the facility and likely will require additional remediation.						
Conclusions/Required Action/Follow-up: None						

RECORD OF COMMUNICATION						
Project Name: Proposed Development			Location (city): Tulare, California			
Communication with: Clerk						
Of: Tulare County Department of Environmental Health						
Location: Visalia, CA			Phone: 559 624-7400			
Communication via	**X**	Telephone		Letter		In Person
Recorded By: Paul Humphrey			Of: Paul Humphrey, EP			
At: (time): 1130			On (date): August 7, 2024			
Re: Records						
Summary of Communication: No records were identified.						
Conclusions/Required Action/Follow-up: None						

RECORD OF COMMUNICATION						
Project Name: Proposed Development			Location (city): Tulare, California			
Communication with: Clerk						
Of: Tulare County Planning and Development Department						
Location: Tulare, CA			Phone: 559			
Communication via		Telephone		Letter	**X**	In Person
Recorded By: Paul Humphrey			Of: Paul Humphrey, EP			
At: (time): 0800			On (date): August 7, 2024			
Re: Records						
Summary of Communication: No records of land use limitations associated with the Subject Property.						
Conclusions/Required Action/Follow-up: None						

RECORD OF COMMUNICATION						
Project Name: Proposed Development			Location (city): Tulare, California			
Communication with: Receptionist						
Of: City of Tulare Fire						
Location: Tulare, CA			Phone: 599			
Communication via		Telephone		Letter	**X**	In Person
Recorded By: Paul Humphrey			Of: Paul Humphrey, EP			
At: (time): 1420			On (date): August 7, 2024			
Re: Records						
Summary of Communication: According to the clerk, no record was identified for the Subject Property and the area is under the jurisdiction of the Tulare County Department of Environmental Health.						
Conclusions/Required Action/Follow-up: None						

APPENDIX E

CLIENT PROVIDED DOCUMENTATION

NOT APPLICABLE FOR THIS REPORT

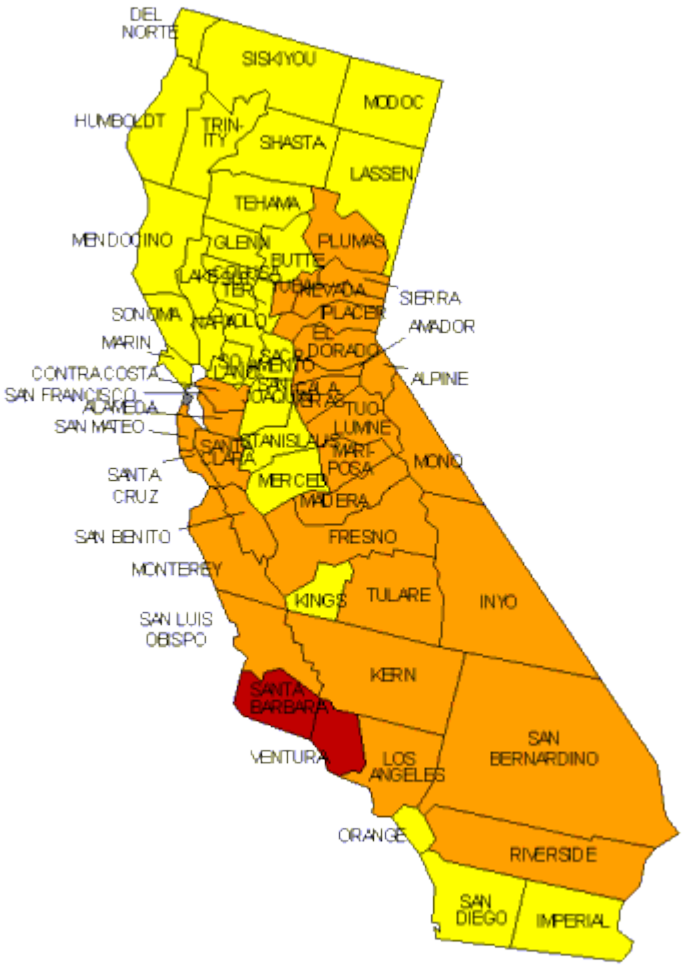
APPENDIX F

OTHER SUPPORTING DOCUMENTATION

Zone 1 Highest Potential (greater than 4 pCi/L)

Zone 2 Moderate Potential (from 2 to 4 pCi/L)

Zone 3 Low Potential (less than 2 pCi/L)



PAUL HUMPHREY, EP
7402 E. CLINTON AVENUE
FRESNO, CALIFORNIA 93737
(559) 977-9813

RADON MAP

N↑

APPENDIX G

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Paul J. Humphrey, REPA, CAC

Education:	College of the Sequoias, Visalia, California
	Associate of Science in Biology, 1994
Licenses/Registrations:	Registered Environmental Property Assessor #827718
	Certified Asbestos Consultant, #03-3495
Years of Experience:	Twenty Four

Summary of Professional Experience

Mr. Humphrey has more than twenty years experience in the environmental field including asbestos surveys, asbestos abatement monitoring and project design, environmental site assessment, soil and groundwater assessment and is an Environmental Professional as defined by the Environmental Protection Agency. Mr. Humphrey has conducted more than 2,000 Phase I Environmental Site Assessments of commercial, industrial, agricultural and multi-family residential properties in California, Nevada, Arizona, and Washington. Mr. Humphrey has more than two years experience in the ground-up development and management of a Hazardous Building Materials Department for a local environmental and engineering firm. Mr. Humphrey has also provided regulatory guidance, assessments, and asbestos surveys and monitoring to utility companies, flood control districts, public works departments, and branches of the military as part of facility expansion projects as well as new site development.

Mr. Humphrey's experience has included preliminary environmental assessments and various soil and groundwater investigations for highway expansion for the State of California Department of Transportation. Projects for the State of California highway expansion also included asbestos surveys of bridges and overpasses.

For a national environmental consulting firm, Mr. Humphrey served as Project Coordinator, where he performed and managed asbestos abatement oversight projects for national clients. Mr. Humphrey has also conducted environmental site assessments on multi-site industrial and commercial properties for various national financial institutions, developers, and property management companies. Assessments included limited and comprehensive surveys for asbestos, lead-based paint, lead-in-drinking-water and radon gas emissions.

Appendix F

Phase II Limited Site Assessment

WILLBANKS
ENVIRONMENTAL CONSULTING, INC
8413 N Millbrook Avenue, Suite 110 • Fresno, CA 93720
(559) 797-4181 Office • WECenvironmental.com

September 23, 2024 WEC Project 24.342

Blue Fern Development
c/o Mr. Matt Graham, Graham and Associates
1005 N. Demaree Street
Visalia, CA 93291

Re: Limited Phase II Environmental Site Assessment
APNs 164-100-008 & 164-100-009
Tulare, California

Dear Mr. Graham:

On behalf of Blue Fern Development (Blue Fern), Willbanks Environmental Consulting, Inc. (WEC) has prepared this Limited Phase II Environmental Site Assessment (Phase II ESA) for the property located on the southeast corner of the intersection of North E Street and Zumwalt Avenue in Tulare, California (Site). It is WEC's understanding that Blue Fern is in the due diligence phase of purchasing the property for a future residential development. As part of the due diligence process, a Phase I Environmental Site Assessment (Phase I ESA) dated August 15, 2024, was prepared by Paul Humphrey, Environmental Professional (EP), of Fresno, California, with the objective of identifying potential environmental conditions and risks associated with the Site.

The objective of this Phase II ESA was to further investigate the Recognized Environmental Conditions (RECs), and Business Environmental Risks (BERs) identified in the Phase I ESA. This report includes the scope of work, results of the investigation, and conclusions based on the data collected.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

According to the Phase I ESA, the Site is comprised of "two parcels of land totaling approximately 35 acres located northeast of the T intersection of North E Street and West Gail Avenue in Tulare, California. The Subject Property is identified as Assessor Parcel Numbers (APNs) 164-100-008 and 164-100-009." A Vicinity Map is included as Figure 1.

The Phase I ESA states, "the Subject Property consists of agricultural land planted with an almond orchard," and "consisted of agricultural land with two rural residences and outbuildings, and a small area of possible animal corrals in 1937, and agricultural land with a rural residence and outbuildings by 1946 and up to at least the mid-2000's. The Subject Property has consisted of agricultural land since at least 2009."

The following environmental conditions and risks were identified in Paul Humphrey's report as warranting additional (i.e., Phase II ESA) investigation:

Recognized Environmental Conditions (RECs): "are defined by the ASTM Standard Practice E1527-21 as: (1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment. Paul Humphrey, EP's assessment has revealed the following RECs associated with the Subject Property or nearby properties:"

- **"**The identified low level of petroleum hydrocarbons in groundwater monitoring well MW-10 at the east boundary of the Subject Property during 2001, 2002, 2003, and January 2017 groundwater sampling, represents a recognized environmental condition. The identified source of the impacts to groundwater has been identified as the former bulk fuel/oil facility located at 2052 North J Street located approximately 280 feet to the east of the Subject Property."

Business Environmental Risk (BER): "is defined by the ASTM Standard Practice E1527-21 as a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of commercial real estate, not necessarily related to those environmental issues required to be investigated in this practice. BERs do not qualify as recognized environmental conditions, as defined by the ASTM Standard Practice E1527-21. Paul Humphrey, EP's investigation has revealed the following BERs associated with the Subject Property or nearby properties:"

- "The Subject Property was historically and is currently used for agricultural purposes. There is a potential that agricultural related chemicals such as pesticides, herbicides, and fertilizers, may have been used onsite. Based on Paul Humphrey, EP's experience, during previous site development activities, near surface soils (where residual agricultural chemical concentrations would have most likely been present, if at all) are likely generally mixed with fill material or disturbed during grading. Also, it is common that engineered fill material is placed over underlying soils as part of site development activities. These additional variables serve to further reduce the potential for exposure to residual agricultural chemicals (if any). Based on these reasons, Paul Humphrey, EP concludes that the possible use of agricultural chemicals is not expected to represent a significant environmental concern. If redevelopment activities for residential use are planned, it should be determined whether sampling relating to the former agricultural use is required by the local planning department or other applicable oversight agency."

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

WEC performed this Limited Phase II ESA to address the concerns identified in the Phase I ESA. The scope of the Phase II ESA included the following investigative tasks:

- Collection of three (3) soil vapor samples from depths of approximately five (5) feet below ground surface (bgs) adjacent to existing groundwater Monitoring Well MW-10

along the eastern portion of the Site. Soil gas probe samples were collected to address the Phase I recommendation, "Based on proposed use of the Subject Property as residential, the User may consider a higher level of assessment of the shallow subsurface soils in the eastern area near the groundwater monitoring well MW-10 to address potential vapor intrusion into indoor air space of future residences." Soil vapor samples were collected from each probe and analyzed for volatile organic compounds (VOCs) by EPA Method TO-15.

- Collection of nine (9) shallow soil samples (6 to 12 inches bgs) throughout the Site. Samples were combined by the laboratory to create three three-part composites. The laboratory designation of Comp-1 comprised soil samples S-1, S-1, and S-3; while Comp-2 comprised soil samples S-4, S-5, and S-6, and; Comp-3 comprised soil samples S-7, S-8, and S-9. Composite samples were analyzed for the presence and concentrations of organochlorine pesticides by EPA Method 8081, organophosphorus pesticides by EPA Method 8141, and chlorinated herbicides by EPA Method 8151. In addition, samples collected along the western portion of the property (i.e., Comp-1, location of former rural residence) were analyzed for CAM 17 Metals by EPA Method 6010.

FINDINGS OF THE INVESTIGATION

Soil Vapor Sampling **-** On August 30, 2024, WEC staff installed three (3) soil gas probes (SGP-1, SGP-2, & SGP-3) to a depth of five (5) feet bgs utilizing direct push equipment (Figure 2 depicts soil gas probe locations) along the eastern portion of the Site, adjacent to groundwater Monitoring Well MW-10 (APN 164-100-008). The soil gas probes were installed and sampled in accordance with the Department of Toxic Substances Control (DTSC) *Advisory – Active Soil Gas Investigations*, July 2015 (Advisory). At each sampling location, soil gas probes were installed by driving as screened vapor probe tip and Teflon® lined, ¼-inch polyethylene tubing into the subsurface via hollow drive tubes. Once the probe had been driven to a depth of 5-feet, the drive tubes were detached from the vapor probe/tubing and removed from the hole, leaving the screen portion of the probe tip exposed to the subsurface vapors. Immediately after the removal of the drive tubes, the annulus around the tubing was backfilled with hydrated granular bentonite. An "umbrella" just above the tip prevented the bentonite from entering the bottom of the open hole created by the drive tip and/or plugging the drive-top screen. The tubing was capped and the subsurface was allowed to equilibrate back to representative conditions for a minimum of two hours. Figure 3 depicts a typical soil gas probe construction detail. Each probe was screened for VOCs using a handheld photoionization detector (PID). VOCs were not detected by the PID in any of the three probes.

Prior to purging and sampling, a shut-in test was conducted to screen for leaks in the sampling train at each location. The shut-in test was performed by evacuating the line to an approximate vacuum of 100 inches of water, sealing the sampling system and observing the vacuum for a minimum of one minute. No observable loss of vacuum was detected in any of the sampling locations. Following the shut-in test, an SKC Pocket Pump (pump) was used to purge the three soil gas probes. The pump was set to a purge rate of 200 cubic centimeters per minute (cc/min). A default of three purge volumes was purged as recommended by the Advisory.

Following the purging of the soil gas probes, a 1-Liter passivated stainless steel summa canister was connected to the sample train for the collection of the soil vapor sample. Isopropyl alcohol (IPA) wipes were utilized as a leak detection compound. An IPA wipe was placed on the ground, adjacent to the sample train connections during sampling. Once collected, each summa canister was sealed, labeled, and shipped to Enthalpy Analytical (Enthalpy) of Orange, California, a California-certified analytical laboratory, under chain of custody protocol. Soil vapor samples were analyzed for the presence and concentrations of VOCs using EPA Method TO-15. Following the sampling of the soil vapor, the soil gas probes were removed by WEC staff, and the ground surface was returned to its original condition. Results of analyses are summarized in Table 1 and a copy of the laboratory analytical report is included as an attachment.

Based on the results of analyses, detections of freon 12, acetone, and toluene were detected in soil gas sample SGP-1-5, collected from Soil Gas Probe SGP-1. Analytes detected in sample SGP-2-5 (Soil Gas Probe SGP-2) included freon 12, acetone, isopropanol, 2-Butanone, and toluene. Analytes detected in sample SGP-3-5 (Soil Gas Probe SGP-3) included acetone, isopropanol, and 2-Butanone. Although the detected analytes were above the laboratory reporting limits, the concentrations were all below established residential Environmental Screening Levels (ESLs)[1].

Soil Sampling - On August 30, 2024, WEC staff advanced nine soil borings throughout the property, specifically focusing on the locations of the former rural residence (APN 164-100-009) and the eastern portion of the Site (APN 164-100-008), approximately 280 feet west of the former bulk fuel/oil facility located at 2052 North J Street. At each location (S-1 through S-9), a hand auger was used to advance a shallow borehole to a depth of approximately 6 inches bgs. A relatively undisturbed soil sample was collected from a depth interval of 6 to 12 inches bgs by driving a clean 2-inch diameter, 6-inch long, stainless steel tube into the soil using a split-spoon sampler equipped with a drive hammer (soils encountered were generally comprised of sandy silty soil). The tube was retrieved, and the ends were immediately covered with Teflon® film and capped. The samples, collected from a vertical depth of approximately 1-foot below surrounding grade, were identified as S-1-1 through S-9-1, in reference to the sample media (soil), the boring location (e.g., 1), and sample depth (i.e., 1 foot bgs). The samples were appropriately labeled and placed in a chilled ice chest for transport, under appropriate COC protocol, to Enthalpy for analyses of chlorinated herbicides, organophosphorus pesticides, and organochlorine pesticides. In addition, samples collected near the former rural residence were analyzed for CAM-17 metals. The boring locations are illustrated on Figure 2 – Site Map.

Soil samples collected near the former rural residence (S-1-1, S-2-1, & S-3-1) were composited by the Enthalpy into one, three-part composite (COMP-1) and analyzed for CAM-17 metals, chlorinated herbicides, organophosphorus pesticides, and organochlorine pesticides. Soil samples collected on the eastern portion of the Site, samples S-4-1 through S-6-1, and samples S-7-1 through S-9-1, were combined into two three-part composites, COMP-2 and COMP-3,

[1] San Francisco Regional Water Quality Control Board (RWQCB) Residential: Subslab/Soil Gas, Table SG-1 Environmental Screening Levels (ESLs), (2019, Rev. 2)

respectively. Composite samples Comp-2 and Comp-3 were analyzed for chlorinated herbicides, organophosphorus pesticides, and organochlorine pesticides. Based on the results of analyses, none of the soil samples showed detections of chlorinated herbicides or organophosphorus pesticides.

Two of the three composite soil samples (COMP-1 and COMP-3) showed detections of 4,4'-DDE, with reported concentrations of 0.011 and 0.0082 milligrams per kilogram (mg/kg), respectively. However, both reported values were below established ESLs[2] (1.8 mg/kg) for a residential scenario. Results of analyses of soil samples collected from the Site are summarized in Table 1 and laboratory report is attached.

The composite soil sample (COMP-1) collected from the former rural residence area showed detections of CAM-17 metals. However, all the reported detections of CAM-17 metals were below the Table S-1 ESLs[2] for a residential scenario, with the exception of arsenic, which had a maximum reported concentration of 2.5 mg/kg. Background arsenic concentrations in California have been reported as high as 11 mg/kg with an average of 3.5 mg/kg[3]. Volcanic rocks from the Sierra Nevada contribute to a large portion of the sediment found on the floor of the San Joaquin Valley (SJV). These rocks contain elevated concentrations of arsenic and are a source of background levels of arsenic in SJV soils[4]. The detections of arsenic from the vicinity of the former rural residence are within the range of background arsenic concentrations in Tulare County.

CONCLUSIONS

This limited Phase II ESA was conducted to assess the possible presence of impacted soil and/or soil gas resulting from past and/or current use of the Site. Soil gas samples collected from the vicinity of Groundwater-Monitoring Well MW-10 contained detections of VOC's, however, they were all below established residential ESLs.

Soil samples collected from within the upper 1 foot of soil along the western portion of the Site (near the former rural residence) contained concentrations of metals that are consistent with normal background levels. Low levels of organochlorinated pesticides were detected in two of the three (COMP-1 & COMP-3), three-part composites, however, the concentrations detected were all below their respective residential ESLs. No detectable concentrations of organophosphorus pesticides or chlorinated herbicides were detected above the laboratory reporting limits in any of the samples submitted for analyses.

LIMITATIONS

This report has been prepared for Blue Fern Development using the standard level of care ordinarily exercised by other consultants practicing in the same discipline and locale at the time the services were performed. WEC's conclusions are based on a limited number of samples and

[2] San Francisco RWQCB Residential: Shallow Soil, Table S-1 ESLs, (2019, Rev. 2)
[3] Division of Agriculture and Natural Resources, March 1996, Background Concentrations of Trace and Major Elements in California Soils.
[4] Groundwater information sheet, Arsenic, December 2015, State Water Resources Control Board.

may not represent the condition of the entire Site. No warranties, either express or implied, are provided.

WEC appreciates the opportunity to work with you on this project. Please contact the WEC office at (559) 797-4181 if you have any questions or comments.

Regards,
Willbanks Environmental Consulting, Inc.

PROFESSIONAL GEOLOGIST
BURTON E. GILPIN
No. 5635
STATE OF CALIFORNIA

Edgar Jimenez
Staff Engineer

Burton Gilpin, PG, CHG, CEG
Senior Hydrogeologist

Attachments:
Table 1 – Summary of Results of Detected Analytes in Soil and Soil Gas Samples
Figure 1 – Vicinity Map
Figure 2 – Site Map
Figure 3 – Typical Soil Gas Probe Construction Detail
Laboratory Analytical Reports

Table 1
Summary of Results of Detected Analytes in Soil and Soil Gas Samples
Blue Fern Development c/o Graham and Associates
APNs 164-100-008 & 164-100-009, Tulare, California

Analyte	COMP-1 (S-1-1, S-2-1, S-3-1)	COMP-2 (S-4-1, S-5-1, S-6-1)	COMP-3 (S-7-1, S-8-1, S-9-1)	ESLs
CAM 17 Metals (EPA Method 6010) (mg/kg)				
Arsenic	**2.5**	NA	NA	0.067
Barium	110	NA	NA	*15,000*
Chromium	14	NA	NA	NE
Cobalt	6.2	NA	NA	420
Copper	13	NA	NA	*3,100*
Lead	9.5	NA	NA	82
Nickel	8.7	NA	NA	15,000
Vanadium	37	NA	NA	*390*
Zinc	72	NA	NA	23,000
EPA Method 7471A (mg/kg)				
Mercury	<0.16	NA	NA	*13*
Organophosphorus Pesticides (EPA Method 8141) (mg/kg)				
No Analytes Detected				
Chlorinated Herbicides (EPA Method 8151A) (mg/kg)				
No Analytes Detected				
Organochlorinated Pesticides (EPA Method 8081A) (mg/kg)				
4,4'-DDT	<0.005	<0.005	<0.005	1.9
4,4'-DDE	0.011	<0.005	0.0082	1.8
Dieldrin	<0.005	<0.005	<0.005	0.037
Chlordane	<0.05	<0.05	<0.05	0.48
Soil Gas Analysis (EPA Method TO-15) (ug/m3)				
	SV-SGP-1-5	**SV-SGP-2-5**	**SV-SGP-3-5**	**ESLs**
Freon 12	1.6	1.6	<6.4	NE
Freon 113	<2.3	<2.3	<10	NE
Acetone	8.1	27	*600*	*1.10E+06*
Carbon Disulfide	<0.93	<0.93	<4.0	NE
Isopropanol (IPA)	<3.7	110	87	NE
Chloroform	<1.5	<1.5	<6.3	4.1
Carbon Tetrachloride	<1.9	<1.9	<8.2	16
2-Butanone	<4.4	7.4	83	NE
4-Methyl-2-Pentanone	<1.2	<1.2	<5.3	NE
Toluene	1.8	1.2	*<4.9*	*10,000*
Tetrachloroethene	<2.0	<2.0	<8.8	15
Ethylbenzene	<1.3	<1.3	<5.6	37
1,2,4-Trimethylbenzene	<1.5	<1.5	<6.4	NE
Xylenes	<1.3	<1.3	*<5.6*	*3,500*

Notes: All values are reported in milligrams per kilogram (mg/kg) except where noted.

< = Less than the specified laboratory reporting limit

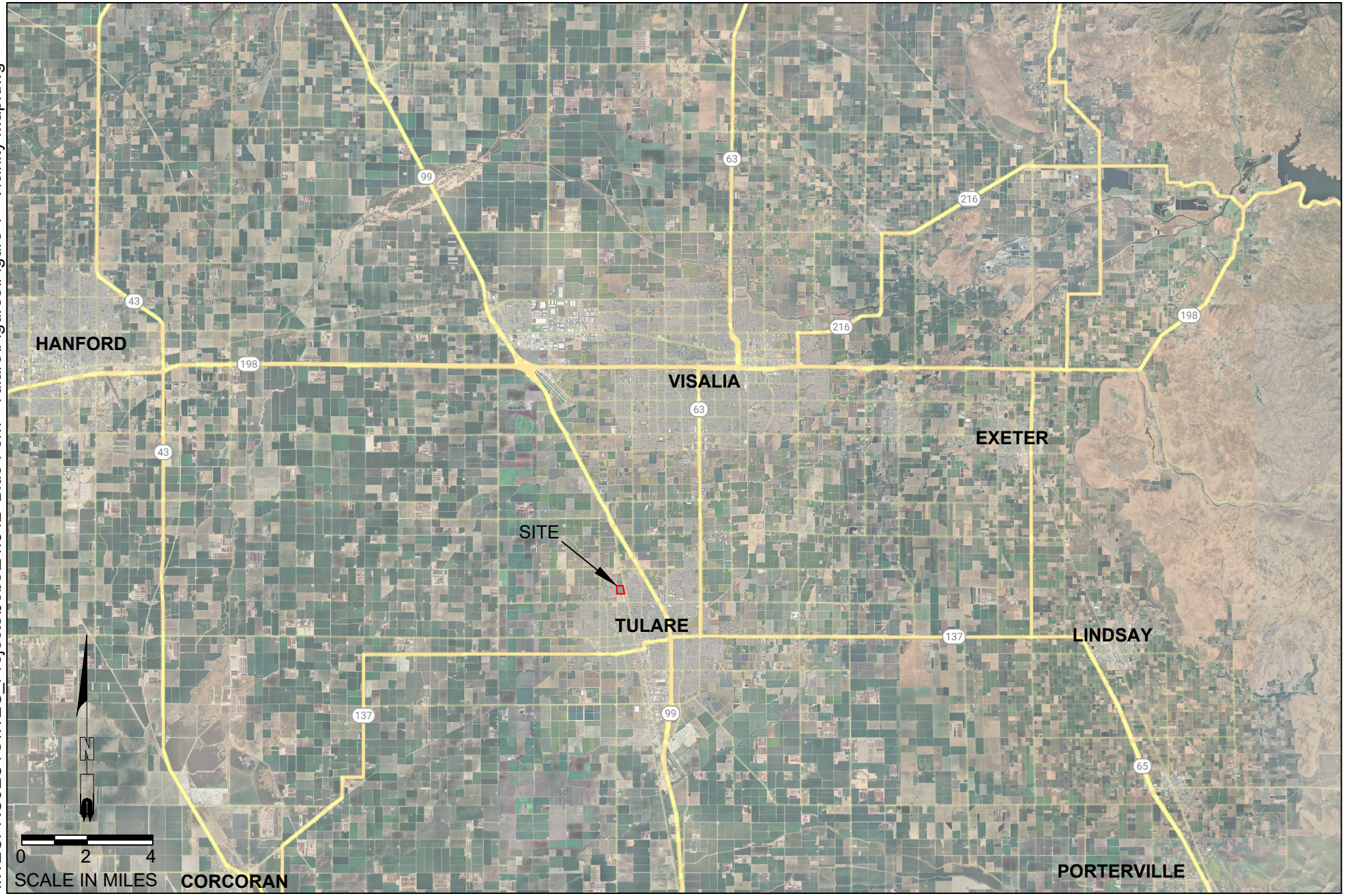
ESLs = Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board, (2019, Rev. 2)

for Residential Cancer Risk and *Non-Cancer Risk* where Cancer Risk is Not Established), Table S-1.

NE = Not Established; NA = Not Analyzed by Laboratory

Values in **BOLD** print where the ESL is exceeded

\\WECPROJECTS\WEC_Projects\Jobs\24.342 Blue Fern - Tulare\Figures\Figure 1 - Vicinity Map.dwg



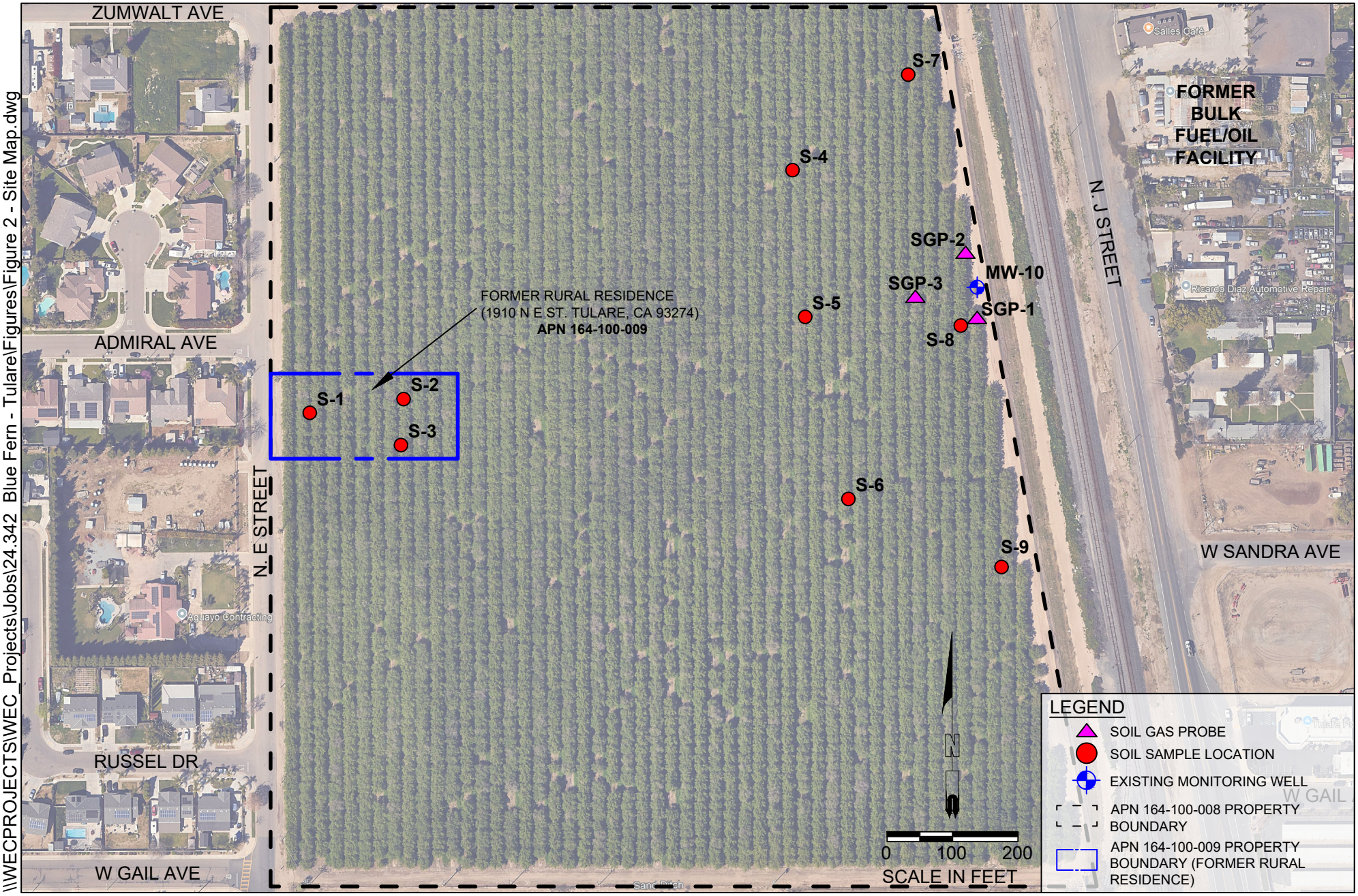
WILLBANKS
ENVIRONMENTAL CONSULTING, INC

VICINITY MAP

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT
BLUE FERN DEVELOPMENT C/O GRAHAM AND ASSOCIATES
APNs 164-100-008 & 164-100-009, TULARE, CALIFORNIA

24.342 EJ 9/23/2024 11:52:52 AM

FIGURE 1



\\WECPROJECTS\WEC_Projects\Jobs\24.342 Blue Fern - Tulare\Figures\Figure 2 - Site Map.dwg

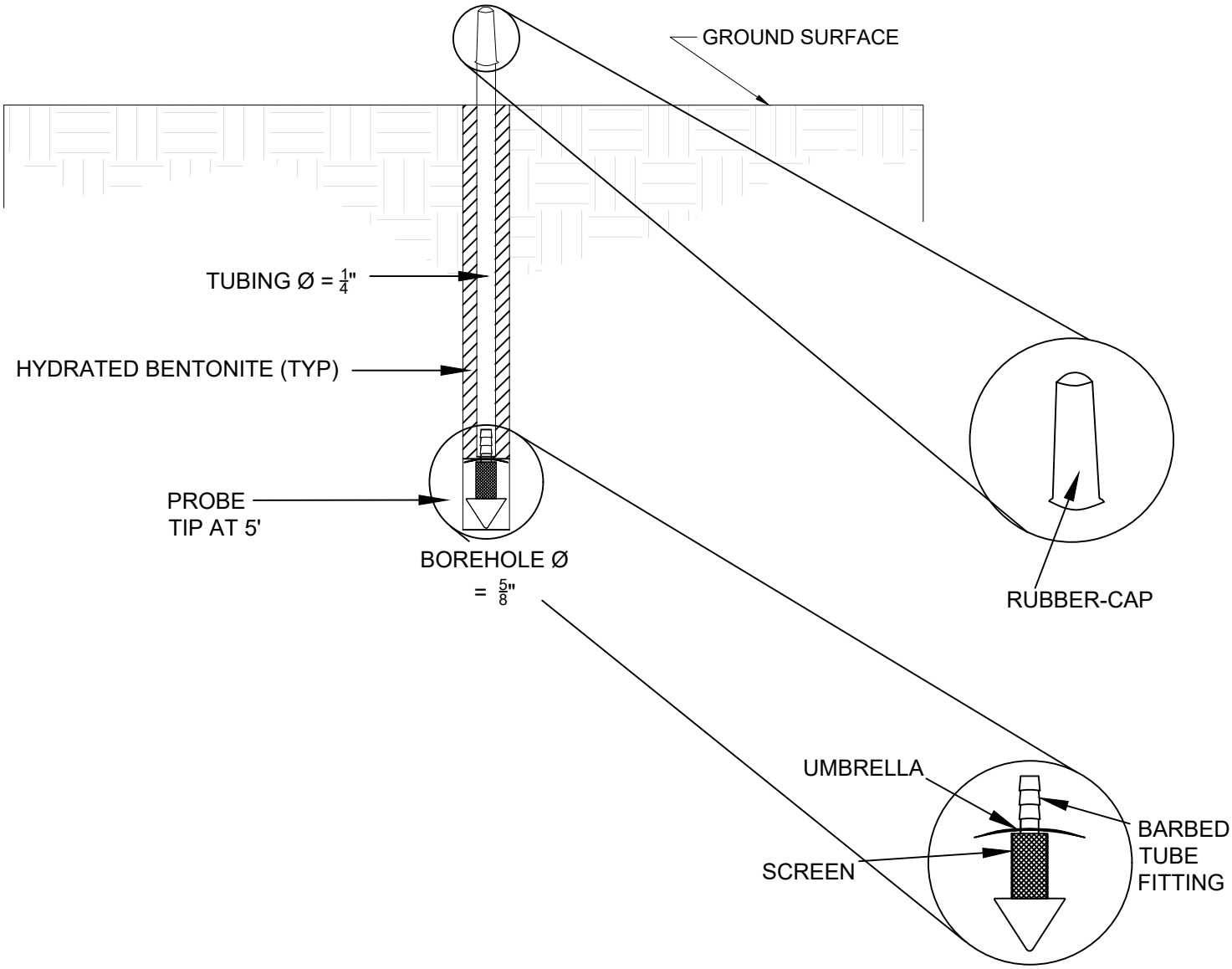
WILLBANKS
ENVIRONMENTAL CONSULTING, INC

SITE MAP

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT
BLUE FERN DEVELOPMENT C/O GRAHAM AND ASSOCIATES
APNs 164-100-008 & 164-100-009, TULARE, CALIFORNIA

24.342 EJ 9/23/2024 11:51:22 AM

FIGURE 2



NOT TO SCALE

\\WECPROJECTS\WEC_PROJECTS\JOBS\24.342 BLUE FERN - TULARE\FIGURES\FIGURE 3 - SGP CONSTRUCTION DETAIL.DWG

WILLBANKS
ENVIRONMENTAL CONSULTING, INC

TYPICAL SOIL GAS PROBE CONSTRUCTION DETAIL

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT
BLUE FERN DEVELOPMENT C/O GRAHAM AND ASSOCIATES
APNs 164-100-008 & 164-100-009, TULARE, CALIFORNIA

24.342 EJ 9/23/2024 11:52:07 AM

FIGURE 3

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number	:	515301
Report Level	:	II
Report Date	:	09/13/2024

Analytical Report *prepared for:*

Edgar Jimenez
Willbanks Environmental Consulting
8413 N. Millbrook Ave, Ste 110
Fresno, CA 93720

Location: Blue Fern - Tulare 24.342

Authorized for release by:

Richard Villafania, Project Manager
richard.villafania@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Edgar Jimenez Willbanks Environmental Consulting 8413 N. Millbrook Ave, Ste 110 Fresno, CA 93720		Lab Job #: Location: Date Received:	515301 Blue Fern - Tulare 24.342 09/04/24

Sample ID	Lab ID	Collected	Matrix
SV-SGP-1-5	515301-001	08/30/24 12:25	Air
SV-SGP-2-5	515301-002	08/30/24 12:58	Air
SV-SGP-3-5	515301-003	08/30/24 12:46	Air

Case Narrative

Willbanks Environmental Consulting 8413 N. Millbrook Ave, Ste 110 Fresno, CA 93720 Edgar Jimenez	Lab Job Number:	515301
	Location:	Blue Fern - Tulare 24.342
	Date Received:	09/04/24

This data package contains sample and QC results for three air samples, requested for the above referenced project on 09/04/24. The samples were received intact.

Volatile Organics in Air by MS (EPA TO-15):

No analytical problems were encountered.

ENTHALPY ANALYTICAL

Air Chain of Custody Record

Lab No: 515301

Page: 1 of 1

Turn Around Time (rush by advanced notice only)

Standard:	x	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Enthalpy Analytical - Orange

931 W. Barkley Avenue, Orange, CA 92868

Phone 714-771-6900

Special Instructions: Level II QA/QC

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Willbanks Environmental Consulting, Inc.	Name:	Blue Fern - Tulare
Report To:	Edgar Jimenez	Number:	24.342
Email:	Edgar@WECenvironmental.com	P.O. #:	
Address:	8413 N. Millbrook Ave. #110, Fresno, CA	Address:	1901 N. E Street, Tulare, California
Phone:	(559)797-4181	Global ID:	
Fax:		Sampled By:	Charles B.

	Sample ID	Type (I) Indoor (A) Ambient (SV) Soil Vapor (S) Source	Equipment Information: Canister ID	Size (1L, 3L, 6L, 15L)	Flow Controller ID	Sampling Information: Sample Start Date	Sample Start Time	Vacuum Start ("Hg)	Sample End Date	Sample End Time	Vacuum End ("Hg)	Analysis Requested: TO-15
1	SV-SGP-1-5	SV	C10541	1L	A10245	8.30.24	12:15 PM	-30	8.30.24	12:25 PM	-2	x
2	SV-SGP-2-5	SV	C11568	1L	A10565	8.30.24	12:58 PM	-28	8.30.24	12:58 PM	-2	x
3	SV-SGP-3-5	SV	C10773	1L	A10577	8.30.24	12:36 PM	-30	8.30.24	12:46 PM	-5	x
4												
5												
6												
7												
8												
9												
10												

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Edgar Jimenez	Willbanks Env.	9/3/2024 11:30
1 Received By:		JETH CO	ENTHALPY	9/4/24 1145
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialogue box that appears. Note: If your browser does not support this function, select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a scheduled Pickup
   - Your driver will pickup your shipment(s) as usual.

   Customers without a scheduled Pickup
   - Schedule a Pickup on ups.com to have a UPS driver pickup all of your packages.
   - Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. To find the location nearest you, please visit the 'Locations' Quick link at ups.com.

UPS Access Point™
THE UPS STORE
7726 N 1ST ST
FRESNO CA 93720-0989

UPS Access Point™
POSTAL EXPRESS AND GIFT
1099 E CHAMPLAIN DR
FRESNO CA 93720-5030

UPS Access Point™
CVS STORE # 9391
1113 E CHAMPLAIN DR
FRESNO CA 93720-4223

FOLD HERE

NOELLE WILLBANKS
5599302090
WILLBANKS ENVIRONMENTAL CONSUL
8413 N MILLBROOK AVE
FRESNO CA 93720

10 LBS 1 OF 1

DWT: 14,10,10

SHIP TO:
RICHARD VILLAFANIA
ENTHALPY ANALYTICAL
SAMPLE RECEIVING
931 WEST BARKLEY AVENUE
ORANGE CA 92868

CA 927 9-01

UPS GROUND

TRACKING #: 1Z 3T8 47T 03 9473 6802

BILLING: P/P

Reference #1: 24.342

XOL.24.08.02 NV45 36.0A 09/2024*

TM

SAMPLE RECEIPT CHECKLIST

ENTHALPY

Section 1: General Info

Date Received: 9/4/24 WO# 515301 Client: WILLBANKS

Section 2: Shipping / Custody **Are custody seals present?** ☐ Yes ☑ No

Custody seals intact on arrival? ☑ N/A ☐ Yes ☐ No ☐ On cooler / box ☐ On samples

Shipping Info: _____

Section 3a: Condition / Packaging ☐ **Outside 0.0 - 6.0°C (0.0 - 10.0°C for microbiology) (PM notified)**

Date Opened 9/4/24 By (initials) JKC Type of ice used : ☐ Wet ☐ Blue/Gel ☑ None

☐ Samples received on ice directly from the field; cooling process had begun. (if checked, skip temperatures)

☑ Sample matrix doesn't require cooling (e.g. air, bulk PCB). (if checked, skip temperatures)

If no cooler: Observed/Adjusted Temp (°C): AMB. / AMB. Thermometer/IR Gun:_____ CF:_____

Cooler Temp (°C) #1:____/____ #2:____/____ #3:____/____ #4:____/____ #5:____/____ #6:____/____

Section 3b: Microbiology Samples ☑ **No microbiology samples submitted (skip 3b)**

☐ Within temp range 0.0 - 10.0°C or received on ice directly from field.

☐ Adequate headspace for microbiology analysis.

Section 3c: Air Samples ☐ **No air samples submitted (skip 3c)**

☑ 1.4L Canisters ☐ 6L Canisters ☐ Tedlar Bags ☐ MCE Cassettes ☐ Sorbent Tubes ☐ Other_____

Section 4: Containers / Labels / Samples	YES	NO	N/A
1) Were custody papers present, filled properly, and legible?	✓		
2) Is the sampler's name present on the CoC?	✓		
3) Were containers received in good condition (unbroken / unopened / uncompromised)?	✓		
4) Were the samples bagged? (required for microbiology samples; recommended for soil samples)			✓
5) Were all of, and only, the correct samples received?	✓		
6) Are sample labels present, legible, and in agreement with the CoC?	✓		
7) Does the container count match the CoC?	✓		
8) Was sufficient sample volume / mass received for the analyses requested?	✓		
9) Were samples received in proper containers for the analyses requested?	✓		
10) Were samples received with > 1/2 holding time remaining?	✓		
11) Are samples properly preserved as indicated by CoC / labels?			✓
12) Unpreserved VOAs received - If necessary, was the hold time changed in LIMS?			✓
13) Are VOA vials free from headspace/bubbles > 6mm?			✓

Section 5: Explanations / Comments ☐ **PM notified**

Date Logged 9/4/24 **By (print)** JETH CO **(sign)** JHW

Date Labeled 9/4/24 **By (print)** JETH CO **(sign)** JHW

ENTHALPY ANALYTICAL

Analysis Results for 515301

Edgar Jimenez
Willbanks Environmental Consulting
8413 N. Millbrook Ave, Ste 110
Fresno, CA 93720

Lab Job #: 515301
Location: Blue Fern - Tulare 24.342
Date Received: 09/04/24

Sample ID: SV-SGP-1-5 **Lab ID: 515301-001** **Collected: 08/30/24 12:25**
Matrix: Air

515301-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.5	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,1-Difluoroethane	ND		ug/m3	4.1	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Freon 12	**0.32**		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Freon 12	**1.6**		ug/m3	1.5	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Freon 114	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Freon 114	ND		ug/m3	2.1	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Chloromethane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Chloromethane	ND		ug/m3	0.62	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Vinyl Chloride	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Vinyl Chloride	ND		ug/m3	0.77	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Bromomethane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Bromomethane	ND		ug/m3	1.2	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Chloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Chloroethane	ND		ug/m3	0.79	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Trichlorofluoromethane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Trichlorofluoromethane	ND		ug/m3	1.7	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,1-Dichloroethene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,1-Dichloroethene	ND		ug/m3	1.2	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Freon 113	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Freon 113	ND		ug/m3	2.3	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Acetone	**3.4**		ppbv	1.5	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Acetone	**8.1**		ug/m3	3.6	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Carbon Disulfide	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Carbon Disulfide	ND		ug/m3	0.93	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Isopropanol (IPA)	ND		ppbv	1.5	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Isopropanol (IPA)	ND		ug/m3	3.7	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Methylene Chloride	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Methylene Chloride	ND		ug/m3	1.0	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
trans-1,2-Dichloroethene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
trans-1,2-Dichloroethene	ND		ug/m3	1.2	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
MTBE	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
MTBE	ND		ug/m3	1.1	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
n-Hexane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
n-Hexane	ND		ug/m3	1.1	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,1-Dichloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,1-Dichloroethane	ND		ug/m3	1.2	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Vinyl Acetate	ND		ppbv	1.5	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Vinyl Acetate	ND		ug/m3	5.3	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
cis-1,2-Dichloroethene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
cis-1,2-Dichloroethene	ND		ug/m3	1.2	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
2-Butanone	ND		ppbv	1.5	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 515301

515301-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
2-Butanone	ND		ug/m3	4.4	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Chloroform	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Chloroform	ND		ug/m3	1.5	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,1,1-Trichloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,1,1-Trichloroethane	ND		ug/m3	1.6	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Carbon Tetrachloride	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Carbon Tetrachloride	ND		ug/m3	1.9	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Benzene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Benzene	ND		ug/m3	0.96	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,2-Dichloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,2-Dichloroethane	ND		ug/m3	1.2	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Trichloroethene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Trichloroethene	ND		ug/m3	1.6	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,2-Dichloropropane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,2-Dichloropropane	ND		ug/m3	1.4	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Bromodichloromethane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Bromodichloromethane	ND		ug/m3	2.0	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
cis-1,3-Dichloropropene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
cis-1,3-Dichloropropene	ND		ug/m3	1.4	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
4-Methyl-2-Pentanone	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
4-Methyl-2-Pentanone	ND		ug/m3	1.2	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Toluene	**0.47**		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Toluene	**1.8**		ug/m3	1.1	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
trans-1,3-Dichloropropene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
trans-1,3-Dichloropropene	ND		ug/m3	1.4	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,1,2-Trichloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,1,2-Trichloroethane	ND		ug/m3	1.6	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Tetrachloroethene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Tetrachloroethene	ND		ug/m3	2.0	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
2-Hexanone	ND		ppbv	0.75	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
2-Hexanone	ND		ug/m3	3.1	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Dibromochloromethane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Dibromochloromethane	ND		ug/m3	2.6	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,2-Dibromoethane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,2-Dibromoethane	ND		ug/m3	2.3	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Chlorobenzene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Chlorobenzene	ND		ug/m3	1.4	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Ethylbenzene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Ethylbenzene	ND		ug/m3	1.3	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
m,p-Xylenes	ND		ppbv	0.60	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
m,p-Xylenes	ND		ug/m3	2.6	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
o-Xylene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
o-Xylene	ND		ug/m3	1.3	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Styrene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Styrene	ND		ug/m3	1.3	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Bromoform	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Bromoform	ND		ug/m3	3.1	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,1,2,2-Tetrachloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.1	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,1,1,2-Tetrachloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.1	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
4-Ethyltoluene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 515301

515301-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
4-Ethyltoluene	ND		ug/m3	1.5	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,3,5-Trimethylbenzene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,3,5-Trimethylbenzene	ND		ug/m3	1.5	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,2,4-Trimethylbenzene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,2,4-Trimethylbenzene	ND		ug/m3	1.5	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,3-Dichlorobenzene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,3-Dichlorobenzene	ND		ug/m3	1.8	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,4-Dichlorobenzene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,4-Dichlorobenzene	ND		ug/m3	1.8	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Benzyl chloride	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Benzyl chloride	ND		ug/m3	1.6	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,2-Dichlorobenzene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,2-Dichlorobenzene	ND		ug/m3	1.8	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,2,4-Trichlorobenzene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
1,2,4-Trichlorobenzene	ND		ug/m3	2.2	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Hexachlorobutadiene	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Hexachlorobutadiene	ND		ug/m3	3.2	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Xylene (total)	ND		ppbv	0.30	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Xylene (total)	ND		ug/m3	1.3	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD
Surrogates				**Limits**					
Bromofluorobenzene	102%		%REC	60-140	1.5	349518	09/06/24 12:53	09/06/24 12:53	OHD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 515301

Sample ID: SV-SGP-2-5	Lab ID: 515301-002	Collected: 08/30/24 12:58
	Matrix: Air	

515301-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	1.5	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,1-Difluoroethane	ND		ug/m3	4.1	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Freon 12	**0.32**		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Freon 12	**1.6**		ug/m3	1.5	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Freon 114	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Freon 114	ND		ug/m3	2.1	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Chloromethane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Chloromethane	ND		ug/m3	0.62	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Vinyl Chloride	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Vinyl Chloride	ND		ug/m3	0.77	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Bromomethane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Bromomethane	ND		ug/m3	1.2	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Chloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Chloroethane	ND		ug/m3	0.79	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Trichlorofluoromethane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Trichlorofluoromethane	ND		ug/m3	1.7	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,1-Dichloroethene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,1-Dichloroethene	ND		ug/m3	1.2	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Freon 113	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Freon 113	ND		ug/m3	2.3	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Acetone	**12**		ppbv	1.5	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Acetone	**27**		ug/m3	3.6	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Carbon Disulfide	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Carbon Disulfide	ND		ug/m3	0.93	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Isopropanol (IPA)	**46**		ppbv	1.5	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Isopropanol (IPA)	**110**		ug/m3	3.7	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Methylene Chloride	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Methylene Chloride	ND		ug/m3	1.0	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
trans-1,2-Dichloroethene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
trans-1,2-Dichloroethene	ND		ug/m3	1.2	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
MTBE	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
MTBE	ND		ug/m3	1.1	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
n-Hexane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
n-Hexane	ND		ug/m3	1.1	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,1-Dichloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,1-Dichloroethane	ND		ug/m3	1.2	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Vinyl Acetate	ND		ppbv	1.5	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Vinyl Acetate	ND		ug/m3	5.3	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
cis-1,2-Dichloroethene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
cis-1,2-Dichloroethene	ND		ug/m3	1.2	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
2-Butanone	**2.5**		ppbv	1.5	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
2-Butanone	**7.4**		ug/m3	4.4	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Chloroform	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Chloroform	ND		ug/m3	1.5	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,1,1-Trichloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 515301

515301-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,1,1-Trichloroethane	ND		ug/m3	1.6	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Carbon Tetrachloride	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Carbon Tetrachloride	ND		ug/m3	1.9	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Benzene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Benzene	ND		ug/m3	0.96	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,2-Dichloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,2-Dichloroethane	ND		ug/m3	1.2	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Trichloroethene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Trichloroethene	ND		ug/m3	1.6	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,2-Dichloropropane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,2-Dichloropropane	ND		ug/m3	1.4	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Bromodichloromethane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Bromodichloromethane	ND		ug/m3	2.0	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
cis-1,3-Dichloropropene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
cis-1,3-Dichloropropene	ND		ug/m3	1.4	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
4-Methyl-2-Pentanone	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
4-Methyl-2-Pentanone	ND		ug/m3	1.2	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Toluene	**0.32**		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Toluene	**1.2**		ug/m3	1.1	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
trans-1,3-Dichloropropene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
trans-1,3-Dichloropropene	ND		ug/m3	1.4	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,1,2-Trichloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,1,2-Trichloroethane	ND		ug/m3	1.6	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Tetrachloroethene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Tetrachloroethene	ND		ug/m3	2.0	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
2-Hexanone	ND		ppbv	0.75	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
2-Hexanone	ND		ug/m3	3.1	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Dibromochloromethane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Dibromochloromethane	ND		ug/m3	2.6	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,2-Dibromoethane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,2-Dibromoethane	ND		ug/m3	2.3	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Chlorobenzene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Chlorobenzene	ND		ug/m3	1.4	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Ethylbenzene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Ethylbenzene	ND		ug/m3	1.3	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
m,p-Xylenes	ND		ppbv	0.60	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
m,p-Xylenes	ND		ug/m3	2.6	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
o-Xylene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
o-Xylene	ND		ug/m3	1.3	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Styrene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Styrene	ND		ug/m3	1.3	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Bromoform	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Bromoform	ND		ug/m3	3.1	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,1,2,2-Tetrachloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,1,2,2-Tetrachloroethane	ND		ug/m3	2.1	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,1,1,2-Tetrachloroethane	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,1,1,2-Tetrachloroethane	ND		ug/m3	2.1	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
4-Ethyltoluene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
4-Ethyltoluene	ND		ug/m3	1.5	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,3,5-Trimethylbenzene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,3,5-Trimethylbenzene	ND		ug/m3	1.5	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,2,4-Trimethylbenzene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 515301

515301-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2,4-Trimethylbenzene	ND		ug/m3	1.5	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,3-Dichlorobenzene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,3-Dichlorobenzene	ND		ug/m3	1.8	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,4-Dichlorobenzene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,4-Dichlorobenzene	ND		ug/m3	1.8	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Benzyl chloride	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Benzyl chloride	ND		ug/m3	1.6	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,2-Dichlorobenzene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,2-Dichlorobenzene	ND		ug/m3	1.8	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,2,4-Trichlorobenzene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
1,2,4-Trichlorobenzene	ND		ug/m3	2.2	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Hexachlorobutadiene	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Hexachlorobutadiene	ND		ug/m3	3.2	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Xylene (total)	ND		ppbv	0.30	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Xylene (total)	ND		ug/m3	1.3	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD
Surrogates				**Limits**					
Bromofluorobenzene	102%		%REC	60-140	1.5	349518	09/06/24 13:26	09/06/24 13:26	OHD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 515301

Sample ID: SV-SGP-3-5	Lab ID: 515301-003	Collected: 08/30/24 12:46
	Matrix: Air	

515301-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA TO-15 Prep Method: METHOD									
1,1-Difluoroethane	ND		ppbv	6.5	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,1-Difluoroethane	ND		ug/m3	18	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Freon 12	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Freon 12	ND		ug/m3	6.4	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Freon 114	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Freon 114	ND		ug/m3	9.1	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Chloromethane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Chloromethane	ND		ug/m3	2.7	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Vinyl Chloride	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Vinyl Chloride	ND		ug/m3	3.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Bromomethane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Bromomethane	ND		ug/m3	5.0	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Chloroethane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Chloroethane	ND		ug/m3	3.4	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Trichlorofluoromethane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Trichlorofluoromethane	ND		ug/m3	7.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,1-Dichloroethene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,1-Dichloroethene	ND		ug/m3	5.2	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Freon 113	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Freon 113	ND		ug/m3	10	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Acetone	**250**		ppbv	6.5	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Acetone	**600**		ug/m3	15	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Carbon Disulfide	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Carbon Disulfide	ND		ug/m3	4.0	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Isopropanol (IPA)	**35**		ppbv	6.5	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Isopropanol (IPA)	**87**		ug/m3	16	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Methylene Chloride	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Methylene Chloride	ND		ug/m3	4.5	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
trans-1,2-Dichloroethene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
trans-1,2-Dichloroethene	ND		ug/m3	5.2	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
MTBE	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
MTBE	ND		ug/m3	4.7	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
n-Hexane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
n-Hexane	ND		ug/m3	4.6	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,1-Dichloroethane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,1-Dichloroethane	ND		ug/m3	5.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Vinyl Acetate	ND		ppbv	6.5	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Vinyl Acetate	ND		ug/m3	23	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
cis-1,2-Dichloroethene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
cis-1,2-Dichloroethene	ND		ug/m3	5.2	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
2-Butanone	**28**		ppbv	6.5	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
2-Butanone	**83**		ug/m3	19	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Chloroform	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Chloroform	ND		ug/m3	6.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,1,1-Trichloroethane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 515301

515301-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,1,1-Trichloroethane	ND		ug/m3	7.1	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Carbon Tetrachloride	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Carbon Tetrachloride	ND		ug/m3	8.2	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Benzene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Benzene	ND		ug/m3	4.2	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,2-Dichloroethane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,2-Dichloroethane	ND		ug/m3	5.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Trichloroethene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Trichloroethene	ND		ug/m3	7.0	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,2-Dichloropropane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,2-Dichloropropane	ND		ug/m3	6.0	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Bromodichloromethane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Bromodichloromethane	ND		ug/m3	8.7	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
cis-1,3-Dichloropropene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
cis-1,3-Dichloropropene	ND		ug/m3	5.9	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
4-Methyl-2-Pentanone	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
4-Methyl-2-Pentanone	ND		ug/m3	5.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Toluene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Toluene	ND		ug/m3	4.9	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
trans-1,3-Dichloropropene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
trans-1,3-Dichloropropene	ND		ug/m3	5.9	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,1,2-Trichloroethane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,1,2-Trichloroethane	ND		ug/m3	7.1	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Tetrachloroethene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Tetrachloroethene	ND		ug/m3	8.8	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
2-Hexanone	ND		ppbv	3.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
2-Hexanone	ND		ug/m3	13	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Dibromochloromethane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Dibromochloromethane	ND		ug/m3	11	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,2-Dibromoethane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,2-Dibromoethane	ND		ug/m3	10	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Chlorobenzene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Chlorobenzene	ND		ug/m3	6.0	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Ethylbenzene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Ethylbenzene	ND		ug/m3	5.6	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
m,p-Xylenes	ND		ppbv	2.6	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
m,p-Xylenes	ND		ug/m3	11	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
o-Xylene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
o-Xylene	ND		ug/m3	5.6	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Styrene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Styrene	ND		ug/m3	5.5	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Bromoform	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Bromoform	ND		ug/m3	13	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,1,2,2-Tetrachloroethane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,1,2,2-Tetrachloroethane	ND		ug/m3	8.9	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,1,1,2-Tetrachloroethane	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,1,1,2-Tetrachloroethane	ND		ug/m3	8.9	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
4-Ethyltoluene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
4-Ethyltoluene	ND		ug/m3	6.4	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,3,5-Trimethylbenzene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,3,5-Trimethylbenzene	ND		ug/m3	6.4	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,2,4-Trimethylbenzene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 515301

515301-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
1,2,4-Trimethylbenzene	ND		ug/m3	6.4	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,3-Dichlorobenzene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,3-Dichlorobenzene	ND		ug/m3	7.8	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,4-Dichlorobenzene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,4-Dichlorobenzene	ND		ug/m3	7.8	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Benzyl chloride	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Benzyl chloride	ND		ug/m3	6.7	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,2-Dichlorobenzene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,2-Dichlorobenzene	ND		ug/m3	7.8	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,2,4-Trichlorobenzene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
1,2,4-Trichlorobenzene	ND		ug/m3	9.6	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Hexachlorobutadiene	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Hexachlorobutadiene	ND		ug/m3	14	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Xylene (total)	ND		ppbv	1.3	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Xylene (total)	ND		ug/m3	5.6	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD
Surrogates				**Limits**					
Bromofluorobenzene	102%		%REC	60-140	6.5	349518	09/06/24 13:53	09/06/24 13:53	OHD

ND Not Detected

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Batch QC

Type:	Lab Control Sample	Lab ID:	QC1183955	Batch:	349518
Matrix:	Air	Method:	EPA TO-15	Prep Method:	METHOD

QC1183955 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,1-Difluoroethane	9.635	10.00	ppbv	96%		70-130
Freon 12	10.50	10.00	ppbv	105%		70-130
Freon 114	9.701	10.00	ppbv	97%		70-130
Chloromethane	9.330	10.00	ppbv	93%		70-130
Vinyl Chloride	9.544	10.00	ppbv	95%		70-130
Bromomethane	9.517	10.00	ppbv	95%		70-130
Chloroethane	9.401	10.00	ppbv	94%		70-130
Trichlorofluoromethane	9.819	10.00	ppbv	98%		70-130
1,1-Dichloroethene	9.668	10.00	ppbv	97%		70-130
Freon 113	9.652	10.00	ppbv	97%		70-130
Acetone	8.746	10.00	ppbv	87%		70-130
Carbon Disulfide	9.637	10.00	ppbv	96%		70-130
Isopropanol (IPA)	9.175	10.00	ppbv	92%		70-130
Methylene Chloride	9.260	10.00	ppbv	93%		70-130
trans-1,2-Dichloroethene	9.295	10.00	ppbv	93%		70-130
MTBE	9.698	10.00	ppbv	97%		70-130
n-Hexane	9.861	10.00	ppbv	99%		70-130
1,1-Dichloroethane	9.461	10.00	ppbv	95%		70-130
Vinyl Acetate	9.256	10.00	ppbv	93%		70-130
cis-1,2-Dichloroethene	9.551	10.00	ppbv	96%		70-130
2-Butanone	9.453	10.00	ppbv	95%		70-130
Chloroform	9.613	10.00	ppbv	96%		70-130
1,1,1-Trichloroethane	9.919	10.00	ppbv	99%		70-130
Carbon Tetrachloride	9.682	10.00	ppbv	97%		70-130
Benzene	9.663	10.00	ppbv	97%		70-130
1,2-Dichloroethane	9.650	10.00	ppbv	96%		70-130
Trichloroethene	9.566	10.00	ppbv	96%		70-130
1,2-Dichloropropane	9.366	10.00	ppbv	94%		70-130
Bromodichloromethane	9.643	10.00	ppbv	96%		70-130
cis-1,3-Dichloropropene	9.428	10.00	ppbv	94%		70-130
4-Methyl-2-Pentanone	9.899	10.00	ppbv	99%		70-130
Toluene	9.831	10.00	ppbv	98%		70-130
trans-1,3-Dichloropropene	9.486	10.00	ppbv	95%		70-130
1,1,2-Trichloroethane	9.749	10.00	ppbv	97%		70-130
Tetrachloroethene	10.02	10.00	ppbv	100%		70-130
2-Hexanone	10.08	10.00	ppbv	101%		70-130
Dibromochloromethane	9.718	10.00	ppbv	97%		70-130
1,2-Dibromoethane	9.705	10.00	ppbv	97%		70-130
Chlorobenzene	9.738	10.00	ppbv	97%		70-130
Ethylbenzene	10.29	10.00	ppbv	103%		70-130
m,p-Xylenes	20.32	20.00	ppbv	102%		70-130
o-Xylene	10.15	10.00	ppbv	101%		70-130
Styrene	10.07	10.00	ppbv	101%		70-130
Bromoform	10.22	10.00	ppbv	102%		70-130
1,1,2,2-Tetrachloroethane	9.733	10.00	ppbv	97%		70-130
1,1,1,2-Tetrachloroethane	9.711	10.00	ppbv	97%		70-130
4-Ethyltoluene	10.33	10.00	ppbv	103%		70-130

ENTHALPY ANALYTICAL

Batch QC

QC1183955 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
1,3,5-Trimethylbenzene	10.01	10.00	ppbv	100%		70-130
1,2,4-Trimethylbenzene	10.06	10.00	ppbv	101%		70-130
1,3-Dichlorobenzene	9.495	10.00	ppbv	95%		70-130
1,4-Dichlorobenzene	9.774	10.00	ppbv	98%		70-130
Benzyl chloride	10.63	10.00	ppbv	106%		70-130
1,2-Dichlorobenzene	9.806	10.00	ppbv	98%		70-130
1,2,4-Trichlorobenzene	9.308	10.00	ppbv	93%		70-130
Hexachlorobutadiene	9.063	10.00	ppbv	91%		70-130
Surrogates						
Bromofluorobenzene	10.40	10.00	ppbv	104%		60-140

ENTHALPY ANALYTICAL

Batch QC

Type:	**Lab Control Sample Duplicate**	**Lab ID:**	**QC1183956**	**Batch:**	**349518**
Matrix:	**Air**	**Method:**	**EPA TO-15**	**Prep Method:**	**METHOD**

QC1183956 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
1,1-Difluoroethane	9.473	10.00	ppbv	95%		70-130	2	25
Freon 12	10.28	10.00	ppbv	103%		70-130	2	25
Freon 114	9.392	10.00	ppbv	94%		70-130	3	25
Chloromethane	9.055	10.00	ppbv	91%		70-130	3	25
Vinyl Chloride	9.312	10.00	ppbv	93%		70-130	2	25
Bromomethane	9.334	10.00	ppbv	93%		70-130	2	25
Chloroethane	9.064	10.00	ppbv	91%		70-130	4	25
Trichlorofluoromethane	9.659	10.00	ppbv	97%		70-130	2	25
1,1-Dichloroethene	9.463	10.00	ppbv	95%		70-130	2	25
Freon 113	9.503	10.00	ppbv	95%		70-130	2	25
Acetone	8.587	10.00	ppbv	86%		70-130	2	25
Carbon Disulfide	9.390	10.00	ppbv	94%		70-130	3	25
Isopropanol (IPA)	8.987	10.00	ppbv	90%		70-130	2	25
Methylene Chloride	9.068	10.00	ppbv	91%		70-130	2	25
trans-1,2-Dichloroethene	9.442	10.00	ppbv	94%		70-130	2	25
MTBE	9.565	10.00	ppbv	96%		70-130	1	25
n-Hexane	9.697	10.00	ppbv	97%		70-130	2	25
1,1-Dichloroethane	9.258	10.00	ppbv	93%		70-130	2	25
Vinyl Acetate	9.335	10.00	ppbv	93%		70-130	1	25
cis-1,2-Dichloroethene	9.428	10.00	ppbv	94%		70-130	1	25
2-Butanone	7.961	10.00	ppbv	80%		70-130	17	25
Chloroform	9.583	10.00	ppbv	96%		70-130	0	25
1,1,1-Trichloroethane	9.895	10.00	ppbv	99%		70-130	0	25
Carbon Tetrachloride	9.625	10.00	ppbv	96%		70-130	1	25
Benzene	9.560	10.00	ppbv	96%		70-130	1	25
1,2-Dichloroethane	9.543	10.00	ppbv	95%		70-130	1	25
Trichloroethene	9.615	10.00	ppbv	96%		70-130	1	25
1,2-Dichloropropane	9.482	10.00	ppbv	95%		70-130	1	25
Bromodichloromethane	9.608	10.00	ppbv	96%		70-130	0	25
cis-1,3-Dichloropropene	9.584	10.00	ppbv	96%		70-130	2	25
4-Methyl-2-Pentanone	9.904	10.00	ppbv	99%		70-130	0	25
Toluene	9.928	10.00	ppbv	99%		70-130	1	25
trans-1,3-Dichloropropene	9.616	10.00	ppbv	96%		70-130	1	25
1,1,2-Trichloroethane	9.875	10.00	ppbv	99%		70-130	1	25
Tetrachloroethene	9.966	10.00	ppbv	100%		70-130	1	25
2-Hexanone	9.895	10.00	ppbv	99%		70-130	2	25
Dibromochloromethane	9.785	10.00	ppbv	98%		70-130	1	25
1,2-Dibromoethane	9.730	10.00	ppbv	97%		70-130	0	25
Chlorobenzene	9.681	10.00	ppbv	97%		70-130	1	25
Ethylbenzene	10.22	10.00	ppbv	102%		70-130	1	25
m,p-Xylenes	20.14	20.00	ppbv	101%		70-130	1	25
o-Xylene	10.08	10.00	ppbv	101%		70-130	1	25
Styrene	10.08	10.00	ppbv	101%		70-130	0	25
Bromoform	10.16	10.00	ppbv	102%		70-130	1	25
1,1,2,2-Tetrachloroethane	9.741	10.00	ppbv	97%		70-130	0	25
1,1,1,2-Tetrachloroethane	9.641	10.00	ppbv	96%		70-130	1	25

ENTHALPY ANALYTICAL

Batch QC

QC1183956 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
4-Ethyltoluene	10.30	10.00	ppbv	103%		70-130	0	25
1,3,5-Trimethylbenzene	10.12	10.00	ppbv	101%		70-130	1	25
1,2,4-Trimethylbenzene	9.884	10.00	ppbv	99%		70-130	2	25
1,3-Dichlorobenzene	9.392	10.00	ppbv	94%		70-130	1	25
1,4-Dichlorobenzene	9.810	10.00	ppbv	98%		70-130	0	25
Benzyl chloride	10.62	10.00	ppbv	106%		70-130	0	25
1,2-Dichlorobenzene	9.655	10.00	ppbv	97%		70-130	2	25
1,2,4-Trichlorobenzene	9.388	10.00	ppbv	94%		70-130	1	25
Hexachlorobutadiene	8.960	10.00	ppbv	90%		70-130	1	25
Surrogates								
Bromofluorobenzene	10.18	10.00	ppbv	102%		60-140		

ENTHALPY ANALYTICAL

Batch QC

Type:	**Blank**	**Lab ID:**	**QC1183957**	**Batch:**	**349518**
Matrix:	**Air**	**Method:**	**EPA TO-15**	**Prep Method:**	**METHOD**

QC1183957 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1,1-Difluoroethane	ND		ppbv	1.0	09/06/24 08:13	09/06/24 08:13
Freon 12	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Freon 114	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Chloromethane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Vinyl Chloride	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Bromomethane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Chloroethane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Trichlorofluoromethane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,1-Dichloroethene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Freon 113	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Acetone	ND		ppbv	1.0	09/06/24 08:13	09/06/24 08:13
Carbon Disulfide	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Isopropanol (IPA)	ND		ppbv	1.0	09/06/24 08:13	09/06/24 08:13
Methylene Chloride	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
trans-1,2-Dichloroethene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
MTBE	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
n-Hexane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,1-Dichloroethane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Vinyl Acetate	ND		ppbv	1.0	09/06/24 08:13	09/06/24 08:13
cis-1,2-Dichloroethene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
2-Butanone	ND		ppbv	1.0	09/06/24 08:13	09/06/24 08:13
Chloroform	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,1,1-Trichloroethane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Carbon Tetrachloride	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Benzene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,2-Dichloroethane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Trichloroethene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,2-Dichloropropane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Bromodichloromethane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
cis-1,3-Dichloropropene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
4-Methyl-2-Pentanone	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Toluene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
trans-1,3-Dichloropropene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,1,2-Trichloroethane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Tetrachloroethene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
2-Hexanone	ND		ppbv	0.50	09/06/24 08:13	09/06/24 08:13
Dibromochloromethane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,2-Dibromoethane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Chlorobenzene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Ethylbenzene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
m,p-Xylenes	ND		ppbv	0.40	09/06/24 08:13	09/06/24 08:13
o-Xylene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Styrene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Bromoform	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,1,1,2-Tetrachloroethane	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
4-Ethyltoluene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13

ENTHALPY ANALYTICAL

Batch QC

QC1183957 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
1,3,5-Trimethylbenzene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,2,4-Trimethylbenzene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,3-Dichlorobenzene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,4-Dichlorobenzene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Benzyl chloride	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,2-Dichlorobenzene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
1,2,4-Trichlorobenzene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Hexachlorobutadiene	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Xylene (total)	ND		ppbv	0.20	09/06/24 08:13	09/06/24 08:13
Surrogates				**Limits**		
Bromofluorobenzene	103%		%REC	60-140	09/06/24 08:13	09/06/24 08:13

ND Not Detected

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number	:	515289
Report Level	:	II
Report Date	:	09/13/2024

Analytical Report *prepared for:*

Edgar Jimenez
Willbanks Environmental Consulting
8413 N. Millbrook Ave, Ste 110
Fresno, CA 93720

Location: Blue Fern - Tulare | 24.342

Authorized for release by:

Richard Villafania, Project Manager
richard.villafania@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Edgar Jimenez Willbanks Environmental Consulting 8413 N. Millbrook Ave, Ste 110 Fresno, CA 93720		Lab Job #: Location: Date Received:	515289 Blue Fern - Tulare | 24.342 09/04/24

Sample ID	Lab ID	Collected	Matrix
S-1-1	515289-001	08/30/24 11:04	Soil
S-2-1	515289-002	08/30/24 11:15	Soil
S-3-1	515289-003	08/30/24 11:10	Soil
S-4-1	515289-004	08/30/24 12:25	Soil
S-5-1	515289-005	08/30/24 12:15	Soil
S-6-1	515289-006	08/30/24 11:55	Soil
S-7-1	515289-007	08/30/24 12:40	Soil
S-8-1	515289-008	08/30/24 09:25	Soil
S-9-1	515289-009	08/30/24 11:37	Soil
COMP-1	515289-010	08/30/24 00:00	Soil
COMP-2	515289-011	08/30/24 00:00	Soil
COMP-3	515289-012	08/30/24 00:00	Soil

Case Narrative

Willbanks Environmental Consulting 8413 N. Millbrook Ave, Ste 110 Fresno, CA 93720 Edgar Jimenez	Lab Job Number:	515289
	Location:	Blue Fern - Tulare | 24.342
	Date Received:	09/04/24

This data package contains sample and QC results for three three-point soil composites, requested for the above referenced project on 09/04/24. The samples were received cold and intact.

Pesticides (EPA 8081A):

- High recoveries were observed for 4,4'-DDE, dieldrin, and endosulfan I in the MS/MSD for batch 349619; the parent sample was not a project sample, the LCS was within limits, and the associated RPDs were within limits.
- No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):

- High response was observed for mercury in the CCV analyzed 09/05/24 12:45; affected data was qualified with "b".
- Low recoveries were observed for barium, antimony, and zinc in the MS/MSD for batch 349386; the parent sample was not a project sample, and the LCS was within limits. High recoveries were observed for barium and zinc in the MS for batch 349386; the LCS was within limits. High RPD was also observed for barium and zinc in the MS/MSD for batch 349386.
- No other analytical problems were encountered.

Organophosphorus Pesticides (EPA 8141A):
McCampbell Analytical, Inc. in Pittsburg, CA performed the analysis (see sublab report section for certifications). Please see the McCampbell Analytical, Inc. case narrative.

8151A Chlorinated Herbicides (EPA 8151A):
McCampbell Analytical, Inc. in Pittsburg, CA performed the analysis (NELAP certified). Please see the McCampbell Analytical, Inc. case narrative.

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 515289

Page: 1 of 1

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Enthalpy Analytical - Orange
931 W. Barkley Avenue, Orange, CA 92868
Phone 714-771-6900

Matrix: A = Air S = Soil/Solid
W = Water DW = Drinking Wate SD = Sediment
PP = Pure Product SEA = Sea Water
SW = Swab T = Tissue WP = Wipe O = Other

Preservatives:
1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3
4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp:
25.3 IR02
25.5 to.2
(lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Willbanks Environmental Consulting	Name:	Blue Fern - Tulare
Report To:	Edgar Jimenez	Number:	24.342
Email:	Edgar@WECenvironmental.com	P.O. #:	
Address:	8413 N. Millbrook Avenue #110	Address:	1901 N. E Street
	Fresno, California		Tulare, California
Phone:	(559) 797-4181	Global ID:	
Fax:		Sampled By:	Edgar Jimenez

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Organochlorine Pesticides (8081)	Organophosphorus Pesticides (614)	Chlorinated Herbicides (8151)	CAM-17 (6010)							Test Instructions / Comments
1	S-1-1	08/30/24	11:04 AM	S	2"x6" sleeve	N/A	X	X	X	X							Comp-1
2	S-2-1	08/30/24	11:15 AM	S	2"x6" sleeve	N/A	X	X	X	X							
3	S-3-1	08/30/24	11:10 AM	S	2"x6" sleeve	N/A	X	X	X	X							
4	S-4-1	08/30/24	12:25 PM	S	2"x6" sleeve	N/A	X	X	X	X							Comp-2
5	S-5-1	08/30/24	12:15 PM	S	2"x6" sleeve	N/A	X	X	X	X							
6	S-6-1	08/30/24	11:55 AM	S	2"x6" sleeve	N/A	X	X	X	X							
7	S-7-1	08/30/24	12:40 PM	S	2"x6" sleeve	N/A	X	X	X	X							Comp-3
8	S-8-1	08/30/24	9:25 AM	S	2"x6" sleeve	N/A	X	X	X	X							
9	S-9-1	08/30/24	11:37 AM	S	2"x6" sleeve	N/A	X	X	X	X							
10																	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Edgar Jimenez	WEC / Staff Engineer	9/3/24 @ 11:00 AM
1 Received By:	[signature]	SETH CO	ENTHALPY	9/4/24 1018
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

SAMPLE RECEIPT CHECKLIST

Section 1: General Info

Date Received: 9/4/24 WO# 515289 Client: Willbanks Env Con.

ENTHALPY

Section 2: Shipping / Custody **Are custody seals present?** ■ Yes ☐ No

Custody seals intact on arrival? ■ N/A ☐ Yes ☐ No ☐ On cooler / box ☐ On samples

Shipping Info: _____

Section 3a: Condition / Packaging ■ **Outside 0.0 - 6.0°C (0.0 - 10.0°C for microbiology) (PM notified)**

Date Opened 9/4/24 By (initials) JKC Type of ice used : ☐ Wet ■ Blue/Gel ~~■ None~~ E 9/4/24

☐ Samples received on ice directly from the field; cooling process had begun. (if checked, skip temperatures)

☐ Sample matrix doesn't require cooling (e.g. air, bulk PCB). (if checked, skip temperatures)

If no cooler: Observed/Adjusted Temp (°C): _____ / _____ Thermometer/IR Gun: IR02 CF: +0.2

Cooler Temp (°C) #1: 25.3/25.5 #2: ____/____ #3: ____/____ #4: ____/____ #5: ____/____ #6: ____/____

Section 3b: Microbiology Samples ■ **No microbiology samples submitted (skip 3b)**

☐ Within temp range 0.0 - 10.0°C or received on ice directly from field.

☐ Adequate headspace for microbiology analysis.

Section 3c: Air Samples ■ **No air samples submitted (skip 3c)**

☐ 1.4L Canisters ☐ 6L Canisters ☐ Tedlar Bags ☐ MCE Cassettes ☐ Sorbent Tubes ☐ Other_____

Section 4: Containers / Labels / Samples	YES	NO	N/A
1) Were custody papers present, filled properly, and legible?	X		
2) Is the sampler's name present on the CoC?	X		
3) Were containers received in good condition (unbroken / unopened / uncompromised)?	X		
4) Were the samples bagged? (required for microbiology samples; recommended for soil samples) E 9/4/24	~~X~~	X	
5) Were all of, and only, the correct samples received?	X		
6) Are sample labels present, legible, and in agreement with the CoC?	X		
7) Does the container count match the CoC?	X		
8) Was sufficient sample volume / mass received for the analyses requested?	X		
9) Were samples received in proper containers for the analyses requested?	X		
10) Were samples received with > 1/2 holding time remaining?	X		
11) Are samples properly preserved as indicated by CoC / labels?	X		
12) Unpreserved VOAs received - If necessary, was the hold time changed in LIMS?			X
13) Are VOA vials free from headspace/bubbles > 6mm?			X

Section 5: Explanations / Comments ☐ **PM notified**

_____

Date Logged 9/4/24 **By (print)** MAY **(sign)** for MAY

Date Labeled 9/4/24 **By (print)** GCK **(sign)** ~~for~~ E 9/4/24

View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialogue box that appears. Note: If your browser does not support this function, select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a scheduled Pickup
   - Your driver will pickup your shipment(s) as usual.

   Customers without a scheduled Pickup
   - Schedule a Pickup on ups.com to have a UPS driver pickup all of your packages.
   - Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. To find the location nearest you, please visit the 'Locations' Quick link at ups.com.

UPS Access Point™
THE UPS STORE
7726 N 1ST ST
FRESNO CA 93720-0989

UPS Access Point™
POSTAL EXPRESS AND GIFT
1099 E CHAMPLAIN DR
FRESNO CA 93720-5030

UPS Access Point™
CVS STORE # 9391
1113 E CHAMPLAIN DR
FRESNO CA 93720-4223

FOLD HERE

NOELLE WILLBANKS
5599302090
WILLBANKS ENVIRONMENTAL CONSUL
8413 N MILLBROOK AVE
FRESNO CA 93720

18 LBS 1 OF 1

DWT: 13,10,10
AH

SHIP TO:
RICHARD VILLAFANIA
ENTHALPY ANALYTICAL
SAMPLE RECEIVING
931 WEST BARKLEY AVENUE
ORANGE CA 92868

CA 927 9-01

UPS GROUND
TRACKING #: 1Z 3T8 47T 03 9559 7498

BILLING: P/P

Reference #1: 24.342

XOL 24.08.02 NV45 36.0A 09/2024*

ENTHALPY ANALYTICAL

Analysis Results for 515289

Edgar Jimenez
Willbanks Environmental Consulting
8413 N. Millbrook Ave, Ste 110
Fresno, CA 93720

Lab Job #: 515289
Location: Blue Fern - Tulare | 24.342
Date Received: 09/04/24

Sample ID: COMP-1 **Lab ID: 515289-010** **Collected: 08/30/24**
Matrix: Soil

515289-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 6010B Prep Method: EPA 3050B									
Antimony	ND		mg/Kg	2.9	0.98	349386	09/04/24	09/04/24	CAP
Arsenic	**2.5**		mg/Kg	0.98	0.98	349386	09/04/24	09/04/24	CAP
Barium	**110**		mg/Kg	0.98	0.98	349386	09/04/24	09/04/24	CAP
Beryllium	ND		mg/Kg	0.49	0.98	349386	09/04/24	09/04/24	CAP
Cadmium	ND		mg/Kg	0.49	0.98	349386	09/04/24	09/04/24	CAP
Chromium	**14**		mg/Kg	0.98	0.98	349386	09/04/24	09/04/24	CAP
Cobalt	**6.2**		mg/Kg	0.49	0.98	349386	09/04/24	09/05/24	CAP
Copper	**13**		mg/Kg	0.98	0.98	349386	09/04/24	09/04/24	CAP
Lead	**9.5**		mg/Kg	0.98	0.98	349386	09/04/24	09/04/24	CAP
Molybdenum	ND		mg/Kg	0.98	0.98	349386	09/04/24	09/04/24	CAP
Nickel	**8.7**		mg/Kg	0.98	0.98	349386	09/04/24	09/04/24	CAP
Selenium	ND		mg/Kg	2.9	0.98	349386	09/04/24	09/04/24	CAP
Silver	ND		mg/Kg	0.49	0.98	349386	09/04/24	09/04/24	CAP
Thallium	ND		mg/Kg	2.9	0.98	349386	09/04/24	09/04/24	CAP
Vanadium	**37**		mg/Kg	0.98	0.98	349386	09/04/24	09/04/24	CAP
Zinc	**72**		mg/Kg	4.9	0.98	349386	09/04/24	09/04/24	CAP
Method: EPA 7471A Prep Method: METHOD									
Mercury	ND		mg/Kg	0.16	1.2	349427	09/05/24	09/05/24	MLL
Method: EPA 8081A Prep Method: EPA 3546									
alpha-BHC	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
beta-BHC	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
gamma-BHC	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
delta-BHC	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Heptachlor	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Aldrin	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Heptachlor epoxide	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Endosulfan I	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Dieldrin	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
4,4'-DDE	**0.011**		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Endrin	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Endosulfan II	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Endosulfan sulfate	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
4,4'-DDD	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Endrin aldehyde	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Endrin ketone	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
4,4'-DDT	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Methoxychlor	ND		mg/Kg	0.0099	0.99	349619	09/07/24	09/10/24	MES
Toxaphene	ND		mg/Kg	0.099	0.99	349619	09/07/24	09/10/24	MES
Chlordane (Technical)	ND		mg/Kg	0.050	0.99	349619	09/07/24	09/10/24	MES

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 515289

515289-010 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Surrogates				**Limits**					
TCMX	93%		%REC	23-120	0.99	349619	09/07/24	09/10/24	MES
Decachlorobiphenyl	86%		%REC	24-120	0.99	349619	09/07/24	09/10/24	MES

Sample ID: COMP-2 **Lab ID: 515289-011** **Collected: 08/30/24**
Matrix: Soil

515289-011 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8081A Prep Method: EPA 3546									
alpha-BHC	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
beta-BHC	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
gamma-BHC	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
delta-BHC	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Heptachlor	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Aldrin	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Heptachlor epoxide	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Endosulfan I	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Dieldrin	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
4,4'-DDE	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Endrin	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Endosulfan II	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Endosulfan sulfate	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
4,4'-DDD	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Endrin aldehyde	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Endrin ketone	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
4,4'-DDT	ND		mg/Kg	0.0050	0.99	349619	09/07/24	09/10/24	MES
Methoxychlor	ND		mg/Kg	0.0099	0.99	349619	09/07/24	09/10/24	MES
Toxaphene	ND		mg/Kg	0.099	0.99	349619	09/07/24	09/10/24	MES
Chlordane (Technical)	ND		mg/Kg	0.050	0.99	349619	09/07/24	09/10/24	MES
Surrogates				**Limits**					
TCMX	82%		%REC	23-120	0.99	349619	09/07/24	09/10/24	MES
Decachlorobiphenyl	65%		%REC	24-120	0.99	349619	09/07/24	09/10/24	MES

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 515289

Sample ID: COMP-3	Lab ID: 515289-012	Collected: 08/30/24
	Matrix: Soil	

515289-012 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 8081A Prep Method: EPA 3546									
alpha-BHC	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
beta-BHC	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
gamma-BHC	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
delta-BHC	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
Heptachlor	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
Aldrin	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
Heptachlor epoxide	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
Endosulfan I	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
Dieldrin	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
4,4'-DDE	**0.0082**	C	mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
Endrin	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
Endosulfan II	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
Endosulfan sulfate	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
4,4'-DDD	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
Endrin aldehyde	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
Endrin ketone	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
4,4'-DDT	ND		mg/Kg	0.0050	1	349619	09/07/24	09/10/24	MES
Methoxychlor	ND		mg/Kg	0.010	1	349619	09/07/24	09/10/24	MES
Toxaphene	ND		mg/Kg	0.10	1	349619	09/07/24	09/10/24	MES
Chlordane (Technical)	ND		mg/Kg	0.050	1	349619	09/07/24	09/10/24	MES
Surrogates				**Limits**					
TCMX	88%		%REC	23-120	1	349619	09/07/24	09/10/24	MES
Decachlorobiphenyl	81%		%REC	24-120	1	349619	09/07/24	09/10/24	MES

C Presence confirmed, but RPD between columns exceeds 40%
ND Not Detected

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Batch QC

Type:	Blank	Lab ID:	QC1183593	Batch:	349386
Matrix:	Soil	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1183593 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Antimony	ND		mg/Kg	3.0	09/04/24	09/04/24
Arsenic	ND		mg/Kg	1.0	09/04/24	09/04/24
Barium	ND		mg/Kg	1.0	09/04/24	09/04/24
Beryllium	ND		mg/Kg	0.50	09/04/24	09/04/24
Cadmium	ND		mg/Kg	0.50	09/04/24	09/04/24
Chromium	ND		mg/Kg	1.0	09/04/24	09/04/24
Cobalt	ND		mg/Kg	0.50	09/04/24	09/05/24
Copper	ND		mg/Kg	1.0	09/04/24	09/04/24
Lead	ND		mg/Kg	1.0	09/04/24	09/04/24
Molybdenum	ND		mg/Kg	1.0	09/04/24	09/04/24
Nickel	ND		mg/Kg	1.0	09/04/24	09/04/24
Selenium	ND		mg/Kg	3.0	09/04/24	09/04/24
Silver	ND		mg/Kg	0.50	09/04/24	09/04/24
Thallium	ND		mg/Kg	3.0	09/04/24	09/04/24
Vanadium	ND		mg/Kg	1.0	09/04/24	09/04/24
Zinc	ND		mg/Kg	5.0	09/04/24	09/04/24

Type:	Lab Control Sample	Lab ID:	QC1183594	Batch:	349386
Matrix:	Soil	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1183594 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Antimony	105.7	100.0	mg/Kg	106%		80-120
Arsenic	103.2	100.0	mg/Kg	103%		80-120
Barium	110.8	100.0	mg/Kg	111%		80-120
Beryllium	109.2	100.0	mg/Kg	109%		80-120
Cadmium	107.0	100.0	mg/Kg	107%		80-120
Chromium	107.5	100.0	mg/Kg	108%		80-120
Cobalt	113.3	100.0	mg/Kg	113%		80-120
Copper	108.6	100.0	mg/Kg	109%		80-120
Lead	110.5	100.0	mg/Kg	111%		80-120
Molybdenum	107.1	100.0	mg/Kg	107%		80-120
Nickel	111.0	100.0	mg/Kg	111%		80-120
Selenium	99.91	100.0	mg/Kg	100%		80-120
Silver	51.91	50.00	mg/Kg	104%		80-120
Thallium	112.4	100.0	mg/Kg	112%		80-120
Vanadium	107.9	100.0	mg/Kg	108%		80-120
Zinc	109.1	100.0	mg/Kg	109%		80-120

ENTHALPY ANALYTICAL

Batch QC

Type:	Matrix Spike	Lab ID:	QC1183595	Batch:	349386
Matrix (Source ID):	Soil (515208-001)	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1183595 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Antimony	37.37	ND	99.01	mg/Kg	38%	*	75-125	0.99
Arsenic	106.5	7.614	99.01	mg/Kg	100%		75-125	0.99
Barium	338.4	212.4	99.01	mg/Kg	127%	*	75-125	0.99
Beryllium	104.4	0.5948	99.01	mg/Kg	105%		75-125	0.99
Cadmium	101.0	0.4292	99.01	mg/Kg	102%		75-125	0.99
Chromium	168.8	57.30	99.01	mg/Kg	113%		75-125	0.99
Cobalt	116.4	12.41	99.01	mg/Kg	105%		75-125	0.99
Copper	152.1	36.76	99.01	mg/Kg	117%		75-125	0.99
Lead	216.7	100.6	99.01	mg/Kg	117%		75-125	0.99
Molybdenum	97.52	0.8274	99.01	mg/Kg	98%		75-125	0.99
Nickel	181.3	72.86	99.01	mg/Kg	110%		75-125	0.99
Selenium	95.23	ND	99.01	mg/Kg	96%		75-125	0.99
Silver	50.38	ND	49.50	mg/Kg	102%		75-125	0.99
Thallium	102.6	ND	99.01	mg/Kg	104%		75-125	0.99
Vanadium	167.2	51.83	99.01	mg/Kg	117%		75-125	0.99
Zinc	287.7	157.9	99.01	mg/Kg	131%	*	75-125	0.99

Type:	Matrix Spike Duplicate	Lab ID:	QC1183596	Batch:	349386
Matrix (Source ID):	Soil (515208-001)	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1183596 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Antimony	49.97	ND	95.24	mg/Kg	52%	*	75-125	33	41	0.95
Arsenic	102.3	7.614	95.24	mg/Kg	99%		75-125	0	35	0.95
Barium	262.0	212.4	95.24	mg/Kg	52%	*	75-125	24*	20	0.95
Beryllium	102.7	0.5948	95.24	mg/Kg	107%		75-125	2	20	0.95
Cadmium	99.69	0.4292	95.24	mg/Kg	104%		75-125	3	20	0.95
Chromium	140.2	57.30	95.24	mg/Kg	87%		75-125	16	20	0.95
Cobalt	109.6	12.41	95.24	mg/Kg	102%		75-125	3	20	0.95
Copper	141.2	36.76	95.24	mg/Kg	110%		75-125	5	20	0.95
Lead	197.3	100.6	95.24	mg/Kg	102%		75-125	7	20	0.95
Molybdenum	98.13	0.8274	95.24	mg/Kg	102%		75-125	4	20	0.95
Nickel	149.4	72.86	95.24	mg/Kg	80%		75-125	17	20	0.95
Selenium	94.46	ND	95.24	mg/Kg	99%		75-125	3	20	0.95
Silver	49.13	ND	47.62	mg/Kg	103%		75-125	1	20	0.95
Thallium	101.6	ND	95.24	mg/Kg	107%		75-125	3	20	0.95
Vanadium	139.5	51.83	95.24	mg/Kg	92%		75-125	16	20	0.95
Zinc	224.1	157.9	95.24	mg/Kg	70%	*	75-125	23*	20	0.95

ENTHALPY ANALYTICAL

Batch QC

Type:	Post Digest Spike	Lab ID:	QC1183597	Batch:	349386
Matrix (Source ID):	Soil (515208-001)	Method:	EPA 6010B	Prep Method:	EPA 3050B

QC1183597 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Antimony	94.05	ND	97.09	mg/Kg	97%		75-125	0.97
Arsenic	99.11	7.614	97.09	mg/Kg	94%		75-125	0.97
Barium	305.0	212.4	97.09	mg/Kg	95%		75-125	0.97
Beryllium	96.34	0.5948	97.09	mg/Kg	99%		75-125	0.97
Cadmium	93.35	0.4292	97.09	mg/Kg	96%		75-125	0.97
Chromium	149.2	57.30	97.09	mg/Kg	95%		75-125	0.97
Cobalt	108.9	12.41	97.09	mg/Kg	99%		75-125	0.97
Copper	137.8	36.76	97.09	mg/Kg	104%		75-125	0.97
Lead	193.9	100.6	97.09	mg/Kg	96%		75-125	0.97
Molybdenum	96.96	0.8274	97.09	mg/Kg	99%		75-125	0.97
Nickel	164.8	72.86	97.09	mg/Kg	95%		75-125	0.97
Selenium	89.44	ND	97.09	mg/Kg	92%		75-125	0.97
Silver	47.85	ND	48.54	mg/Kg	99%		75-125	0.97
Thallium	97.18	ND	97.09	mg/Kg	100%		75-125	0.97
Vanadium	146.4	51.83	97.09	mg/Kg	97%		75-125	0.97
Zinc	247.5	157.9	97.09	mg/Kg	92%		75-125	0.97

Type:	Blank	Lab ID:	QC1183716	Batch:	349427
Matrix:	Soil	Method:	EPA 7471A	Prep Method:	METHOD

QC1183716 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Mercury	ND		mg/Kg	0.14	09/05/24	09/05/24

Type:	Lab Control Sample	Lab ID:	QC1183717	Batch:	349427
Matrix:	Soil	Method:	EPA 7471A	Prep Method:	METHOD

QC1183717 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Mercury	0.9166	0.8333	mg/Kg	110%		80-120

Type:	Matrix Spike	Lab ID:	QC1183720	Batch:	349427
Matrix (Source ID):	Soil (515066-001)	Method:	EPA 7471A	Prep Method:	METHOD

QC1183720 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Mercury	1.026	ND	0.9091	mg/Kg	113%		75-125	1.1

Type:	Matrix Spike Duplicate	Lab ID:	QC1183721	Batch:	349427
Matrix (Source ID):	Soil (515066-001)	Method:	EPA 7471A	Prep Method:	METHOD

QC1183721 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Mercury	1.001	ND	0.8929	mg/Kg	112%	b	75-125	1	20	1.1

ENTHALPY ANALYTICAL

Batch QC

Type:	**Blank**	**Lab ID:**	**QC1184286**	**Batch:**	**349619**
Matrix:	**Soil**	**Method:**	**EPA 8081A**	**Prep Method:**	**EPA 3546**

QC1184286 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
alpha-BHC	ND		mg/Kg	0.0050	09/07/24	09/10/24
beta-BHC	ND		mg/Kg	0.0050	09/07/24	09/10/24
gamma-BHC	ND		mg/Kg	0.0050	09/07/24	09/10/24
delta-BHC	ND		mg/Kg	0.0050	09/07/24	09/10/24
Heptachlor	ND		mg/Kg	0.0050	09/07/24	09/10/24
Aldrin	ND		mg/Kg	0.0050	09/07/24	09/10/24
Heptachlor epoxide	ND		mg/Kg	0.0050	09/07/24	09/10/24
Endosulfan I	ND		mg/Kg	0.0050	09/07/24	09/10/24
Dieldrin	ND		mg/Kg	0.0050	09/07/24	09/10/24
4,4'-DDE	ND		mg/Kg	0.0050	09/07/24	09/10/24
Endrin	ND		mg/Kg	0.0050	09/07/24	09/10/24
Endosulfan II	ND		mg/Kg	0.0050	09/07/24	09/10/24
Endosulfan sulfate	ND		mg/Kg	0.0050	09/07/24	09/10/24
4,4'-DDD	ND		mg/Kg	0.0050	09/07/24	09/10/24
Endrin aldehyde	ND		mg/Kg	0.0050	09/07/24	09/10/24
Endrin ketone	ND		mg/Kg	0.0050	09/07/24	09/10/24
4,4'-DDT	ND		mg/Kg	0.0050	09/07/24	09/10/24
Methoxychlor	ND		mg/Kg	0.010	09/07/24	09/10/24
Toxaphene	ND		mg/Kg	0.10	09/07/24	09/10/24
Chlordane (Technical)	ND		mg/Kg	0.050	09/07/24	09/10/24
Surrogates				**Limits**		
TCMX	99%		%REC	23-120	09/07/24	09/10/24
Decachlorobiphenyl	82%		%REC	24-120	09/07/24	09/10/24

ENTHALPY ANALYTICAL

Batch QC

Type:	**Lab Control Sample**	**Lab ID:**	**QC1184287**	**Batch:**	**349619**
Matrix:	**Soil**	**Method:**	**EPA 8081A**	**Prep Method:**	**EPA 3546**

QC1184287 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
alpha-BHC	0.05031	0.05000	mg/Kg	101%		22-129
beta-BHC	0.05086	0.05000	mg/Kg	102%		28-125
gamma-BHC	0.04817	0.05000	mg/Kg	96%		22-128
delta-BHC	0.04668	0.05000	mg/Kg	93%		24-131
Heptachlor	0.04527	0.05000	mg/Kg	91%		18-124
Aldrin	0.03371	0.05000	mg/Kg	67%		23-120
Heptachlor epoxide	0.04820	0.05000	mg/Kg	96%		26-120
Endosulfan I	0.05108	0.05000	mg/Kg	102%		25-126
Dieldrin	0.05216	0.05000	mg/Kg	104%		23-124
4,4'-DDE	0.05500	0.05000	mg/Kg	110%		28-121
Endrin	0.04962	0.05000	mg/Kg	99%		25-127
Endosulfan II	0.05013	0.05000	mg/Kg	100%		29-121
Endosulfan sulfate	0.04512	0.05000	mg/Kg	90%		30-121
4,4'-DDD	0.04890	0.05000	mg/Kg	98%		26-120
Endrin aldehyde	0.02915	0.05000	mg/Kg	58%		10-120
Endrin ketone	0.05037	0.05000	mg/Kg	101%		28-125
4,4'-DDT	0.04622	0.05000	mg/Kg	92%		22-125
Methoxychlor	0.04848	0.05000	mg/Kg	97%		28-130
Surrogates						
TCMX	0.04149	0.05000	mg/Kg	83%		23-120
Decachlorobiphenyl	0.03577	0.05000	mg/Kg	72%		24-120

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike**	**Lab ID:**	**QC1184288**	**Batch:**	**349619**
Matrix (Source ID):	**Soil (515420-001)**	**Method:**	**EPA 8081A**	**Prep Method:**	**EPA 3546**

QC1184288 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
alpha-BHC	0.05455	ND	0.04902	mg/Kg	111%		46-120	2
beta-BHC	0.05372	ND	0.04902	mg/Kg	110%		41-120	2
gamma-BHC	0.05162	ND	0.04902	mg/Kg	105%		41-120	2
delta-BHC	0.04772	ND	0.04902	mg/Kg	97%		38-123	2
Heptachlor	0.05358	ND	0.04902	mg/Kg	109%		39-120	2
Aldrin	0.05068	ND	0.04902	mg/Kg	103%		34-120	2
Heptachlor epoxide	0.05453	ND	0.04902	mg/Kg	111%		43-120	2
Endosulfan I	0.05958	ND	0.04902	mg/Kg	122%	*	45-120	2
Dieldrin	0.05959	ND	0.04902	mg/Kg	122%	*	45-120	2
4,4'-DDE	0.06225	ND	0.04902	mg/Kg	127%	*	34-120	2
Endrin	0.05884	ND	0.04902	mg/Kg	120%		40-120	2
Endosulfan II	0.05790	ND	0.04902	mg/Kg	118%		41-120	2
Endosulfan sulfate	0.04204	ND	0.04902	mg/Kg	86%		42-120	2
4,4'-DDD	0.05696	ND	0.04902	mg/Kg	116%		41-120	2
Endrin aldehyde	0.04423	ND	0.04902	mg/Kg	90%		30-120	2
Endrin ketone	0.04806	ND	0.04902	mg/Kg	98%		45-120	2
4,4'-DDT	0.05930	ND	0.04902	mg/Kg	121%		35-127	2
Methoxychlor	0.05470	ND	0.04902	mg/Kg	112%		42-136	2
Surrogates								
TCMX	0.04638		0.04902	mg/Kg	95%		23-120	2
Decachlorobiphenyl	0.04337		0.04902	mg/Kg	88%		24-120	2

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1184289**	**Batch:**	**349619**
Matrix (Source ID):	**Soil (515420-001)**	**Method:**	**EPA 8081A**	**Prep Method:**	**EPA 3546**

QC1184289 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
alpha-BHC	0.05322	ND	0.04902	mg/Kg	109%		46-120	2	30	2
beta-BHC	0.05239	ND	0.04902	mg/Kg	107%		41-120	3	30	2
gamma-BHC	0.05116	ND	0.04902	mg/Kg	104%		41-120	1	30	2
delta-BHC	0.04596	ND	0.04902	mg/Kg	94%		38-123	4	30	2
Heptachlor	0.05289	ND	0.04902	mg/Kg	108%		39-120	1	30	2
Aldrin	0.04955	ND	0.04902	mg/Kg	101%		34-120	2	30	2
Heptachlor epoxide	0.05165	ND	0.04902	mg/Kg	105%		43-120	5	30	2
Endosulfan I	0.05733	ND	0.04902	mg/Kg	117%		45-120	4	30	2
Dieldrin	0.05740	ND	0.04902	mg/Kg	117%		45-120	4	30	2
4,4'-DDE	0.06048	ND	0.04902	mg/Kg	123%	*	34-120	3	30	2
Endrin	0.05626	ND	0.04902	mg/Kg	115%		40-120	4	30	2
Endosulfan II	0.05503	ND	0.04902	mg/Kg	112%		41-120	5	30	2
Endosulfan sulfate	0.04968	ND	0.04902	mg/Kg	101%		42-120	17	30	2
4,4'-DDD	0.05426	ND	0.04902	mg/Kg	111%		41-120	5	30	2
Endrin aldehyde	0.04090	ND	0.04902	mg/Kg	83%		30-120	8	30	2
Endrin ketone	0.04563	ND	0.04902	mg/Kg	93%		45-120	5	30	2
4,4'-DDT	0.05651	ND	0.04902	mg/Kg	115%		35-127	5	30	2
Methoxychlor	0.06237	ND	0.04902	mg/Kg	127%		42-136	13	30	2
Surrogates										
TCMX	0.04598		0.04902	mg/Kg	94%		23-120			2
Decachlorobiphenyl	0.03517		0.04902	mg/Kg	72%		24-120			2

* Value is outside QC limits
ND Not Detected
b See narrative

Laboratory Job Number 515289

Subcontracted Products

McCampbell Analytical, Inc.

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2409412

Report Created for: Enthalpy Analytical

931 West Barkley Avenue
Orange, CA 92868

Project Contact: Richard Villafania
Project P.O.: 058321
Project: EO-515289

Project Location:
Project Received: 09/06/2024

Analytical Report reviewed & approved for release on 09/13/2024 by:

Yen Cao
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in a case narrative.

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CA ELAP 1644 ♦ NELAP 4033 ORELAP

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Glossary of Terms & Qualifier Definitions

Client: Enthalpy Analytical **WorkOrder:** 2409412
Project: EO-515289

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CCV	Continuing Calibration Verification.
CCV REC (%)	% recovery of Continuing Calibration Verification.
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LCS2	Second LCS for the batch. Spike level is lower than that for the first LCS; applicable to method 1633.
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit [1]
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NA	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit [2]
RPD	Relative Percent Difference
RRT	Relative Retention Time
RSD	Relative Standard Deviation
SNR	Surrogate is diluted out of the calibration range
SPK Val	Spike Value

[1] MDL is the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results. Definition and Procedure for the Determination of the Method Detection Limit, Revision 2, 40CFR, Part 136, Appendix B, EPA 821-R-16-006, December 2016. Values are based upon our default extraction volume/amount and are subject to change.

[2] RL is the lowest level that can be reliably determined within specified limits of precision and accuracy during routine laboratory operating conditions. (The RL cannot be lower than the lowest calibration standard used in the initial calibration of the instrument and must be greater than the MDL.) Values are based upon our default extraction volume/amount and are subject to change.

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Glossary of Terms & Qualifier Definitions

Client: Enthalpy Analytical **WorkOrder:** 2409412
Project: EO-515289

SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TNTC	"Too Numerous to Count;" greater than 250 colonies observed on the plate.
TZA	TimeZone Net Adjustment for sample collected outside of MAI's Coordinated Universal Time (UTC). (Adjustment for Daylight Saving is not accounted.)
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

S	Surrogate recovery outside accepted recovery limits.
a3	Sample diluted due to high organic content interfering with quantitative/or qualitative analysis.
c22	A surrogate recovery was outside the control limit, the alternate surrogate control limit was within range and the result is reportable.

Quality Control Qualifiers

F7	The LCS/LCSD recovery is above the upper control limit. The target analyte(s) were Not Detected (ND); therefore, the data is reportable.

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Analytical Report

Client:	Enthalpy Analytical	**WorkOrder:**	2409412
Date Received:	09/06/2024 10:19	**Extraction Method:**	SW3550B
Date Prepared:	09/11/2024	**Analytical Method:**	SW8270E
Project:	EO-515289	**Unit:**	mg/kg

Organophosphorous Pesticides by GC-MS (EPA 8141 Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COMP-1	2409412-001A	Soil	08/30/2024	GC53 09112436.D	301619

Analytes	Result	RL	DF	Date Analyzed
Alachlor	ND	1.0	10	09/12/2024 01:39
Atrazine	ND	1.0	10	09/12/2024 01:39
Azinphos methyl (Guthion)	ND	1.0	10	09/12/2024 01:39
Bolstar (Sulprofos)	ND	1.0	10	09/12/2024 01:39
Chlorpyrifos	ND	1.0	10	09/12/2024 01:39
Coumaphos	ND	1.0	10	09/12/2024 01:39
Demeton	ND	1.0	10	09/12/2024 01:39
Diazinon	ND	1.0	10	09/12/2024 01:39
Dichlorvos (DDVP)	ND	1.0	10	09/12/2024 01:39
Dimethoate	ND	1.0	10	09/12/2024 01:39
Disulfoton (Di-Syston)	ND	1.0	10	09/12/2024 01:39
EPN	ND	1.0	10	09/12/2024 01:39
EPTC	ND	1.0	10	09/12/2024 01:39
Ethion	ND	1.0	10	09/12/2024 01:39
Ethoprop	ND	1.0	10	09/12/2024 01:39
Ethyl parathion	ND	1.0	10	09/12/2024 01:39
Fensulfothion	ND	1.0	10	09/12/2024 01:39
Fenthion	ND	1.0	10	09/12/2024 01:39
Fonofos	ND	1.0	10	09/12/2024 01:39
Malathion	ND	1.0	10	09/12/2024 01:39
Mevinphos (Phosdrin)	ND	1.0	10	09/12/2024 01:39
Molinate	ND	1.0	10	09/12/2024 01:39
Methyl parathion	ND	1.0	10	09/12/2024 01:39
Phorate (Thimet)	ND	1.0	10	09/12/2024 01:39
Prometon	ND	1.0	10	09/12/2024 01:39
Ronnel	ND	1.0	10	09/12/2024 01:39
Simazine	ND	1.0	10	09/12/2024 01:39
Stirofos (Tetrachlorvinphos)	ND	1.0	10	09/12/2024 01:39
Terbacil	ND	1.0	10	09/12/2024 01:39
Terbufos (Terbuphos)	ND	1.0	10	09/12/2024 01:39
Thiobencarb	ND	1.0	10	09/12/2024 01:39
Tokuthion (Prothiofos)	ND	1.0	10	09/12/2024 01:39
Trichloronate (Agritox)	ND	1.0	10	09/12/2024 01:39

(Cont.)

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Analytical Report

Client:	Enthalpy Analytical	**WorkOrder:**	2409412
Date Received:	09/06/2024 10:19	**Extraction Method:**	SW3550B
Date Prepared:	09/11/2024	**Analytical Method:**	SW8270E
Project:	EO-515289	**Unit:**	mg/kg

Organophosphorous Pesticides by GC-MS (EPA 8141 Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COMP-1	2409412-001A	Soil	08/30/2024	GC53 09112436.D	301619

Analytes	Result	RL	DF	Date Analyzed

Surrogates	REC (%)	Qualifiers	Limits	
1-Bromo-2-Nitrobenzene	89		60-140	09/12/2024 01:39
Triphenyl phosphate	0	S	60-140	09/12/2024 01:39

Analyst(s): JS

Analytical Comments: a3,c22

(Cont.)

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Analytical Report

Client:	Enthalpy Analytical	**WorkOrder:**	2409412
Date Received:	09/06/2024 10:19	**Extraction Method:**	SW3550B
Date Prepared:	09/11/2024	**Analytical Method:**	SW8270E
Project:	EO-515289	**Unit:**	mg/kg

Organophosphorous Pesticides by GC-MS (EPA 8141 Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COMP-2	2409412-002A	Soil	08/30/2024	GC53 09112437.D	301619

Analytes	Result	RL	DF	Date Analyzed
Alachlor	ND	0.10	1	09/12/2024 02:06
Atrazine	ND	0.10	1	09/12/2024 02:06
Azinphos methyl (Guthion)	ND	0.10	1	09/12/2024 02:06
Bolstar (Sulprofos)	ND	0.10	1	09/12/2024 02:06
Chlorpyrifos	ND	0.10	1	09/12/2024 02:06
Coumaphos	ND	0.10	1	09/12/2024 02:06
Demeton	ND	0.10	1	09/12/2024 02:06
Diazinon	ND	0.10	1	09/12/2024 02:06
Dichlorvos (DDVP)	ND	0.10	1	09/12/2024 02:06
Dimethoate	ND	0.10	1	09/12/2024 02:06
Disulfoton (Di-Syston)	ND	0.10	1	09/12/2024 02:06
EPN	ND	0.10	1	09/12/2024 02:06
EPTC	ND	0.10	1	09/12/2024 02:06
Ethion	ND	0.10	1	09/12/2024 02:06
Ethoprop	ND	0.10	1	09/12/2024 02:06
Ethyl parathion	ND	0.10	1	09/12/2024 02:06
Fensulfothion	ND	0.10	1	09/12/2024 02:06
Fenthion	ND	0.10	1	09/12/2024 02:06
Fonofos	ND	0.10	1	09/12/2024 02:06
Malathion	ND	0.10	1	09/12/2024 02:06
Mevinphos (Phosdrin)	ND	0.10	1	09/12/2024 02:06
Molinate	ND	0.10	1	09/12/2024 02:06
Methyl parathion	ND	0.10	1	09/12/2024 02:06
Phorate (Thimet)	ND	0.10	1	09/12/2024 02:06
Prometon	ND	0.10	1	09/12/2024 02:06
Ronnel	ND	0.10	1	09/12/2024 02:06
Simazine	ND	0.10	1	09/12/2024 02:06
Stirofos (Tetrachlorvinphos)	ND	0.10	1	09/12/2024 02:06
Terbacil	ND	0.10	1	09/12/2024 02:06
Terbufos (Terbuphos)	ND	0.10	1	09/12/2024 02:06
Thiobencarb	ND	0.10	1	09/12/2024 02:06
Tokuthion (Prothiofos)	ND	0.10	1	09/12/2024 02:06
Trichloronate (Agritox)	ND	0.10	1	09/12/2024 02:06

(Cont.)

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Analytical Report

Client:	Enthalpy Analytical	**WorkOrder:**	2409412
Date Received:	09/06/2024 10:19	**Extraction Method:**	SW3550B
Date Prepared:	09/11/2024	**Analytical Method:**	SW8270E
Project:	EO-515289	**Unit:**	mg/kg

Organophosphorous Pesticides by GC-MS (EPA 8141 Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COMP-2	2409412-002A	Soil	08/30/2024	GC53 09112437.D	301619

Analytes	Result	RL	DF	Date Analyzed

Surrogates	REC (%)	Limits	
1-Bromo-2-Nitrobenzene	105	60-140	09/12/2024 02:06
Triphenyl phosphate	118	60-140	09/12/2024 02:06

Analyst(s): JS

(Cont.)

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Analytical Report

Client:	Enthalpy Analytical	**WorkOrder:**	2409412
Date Received:	09/06/2024 10:19	**Extraction Method:**	SW3550B
Date Prepared:	09/11/2024	**Analytical Method:**	SW8270E
Project:	EO-515289	**Unit:**	mg/kg

Organophosphorous Pesticides by GC-MS (EPA 8141 Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COMP-3	2409412-003A	Soil	08/30/2024	GC53 09112438.D	301619

Analytes	Result	RL	DF	Date Analyzed
Alachlor	ND	0.10	1	09/12/2024 02:33
Atrazine	ND	0.10	1	09/12/2024 02:33
Azinphos methyl (Guthion)	ND	0.10	1	09/12/2024 02:33
Bolstar (Sulprofos)	ND	0.10	1	09/12/2024 02:33
Chlorpyrifos	ND	0.10	1	09/12/2024 02:33
Coumaphos	ND	0.10	1	09/12/2024 02:33
Demeton	ND	0.10	1	09/12/2024 02:33
Diazinon	ND	0.10	1	09/12/2024 02:33
Dichlorvos (DDVP)	ND	0.10	1	09/12/2024 02:33
Dimethoate	ND	0.10	1	09/12/2024 02:33
Disulfoton (Di-Syston)	ND	0.10	1	09/12/2024 02:33
EPN	ND	0.10	1	09/12/2024 02:33
EPTC	ND	0.10	1	09/12/2024 02:33
Ethion	ND	0.10	1	09/12/2024 02:33
Ethoprop	ND	0.10	1	09/12/2024 02:33
Ethyl parathion	ND	0.10	1	09/12/2024 02:33
Fensulfothion	ND	0.10	1	09/12/2024 02:33
Fenthion	ND	0.10	1	09/12/2024 02:33
Fonofos	ND	0.10	1	09/12/2024 02:33
Malathion	ND	0.10	1	09/12/2024 02:33
Mevinphos (Phosdrin)	ND	0.10	1	09/12/2024 02:33
Molinate	ND	0.10	1	09/12/2024 02:33
Methyl parathion	ND	0.10	1	09/12/2024 02:33
Phorate (Thimet)	ND	0.10	1	09/12/2024 02:33
Prometon	ND	0.10	1	09/12/2024 02:33
Ronnel	ND	0.10	1	09/12/2024 02:33
Simazine	ND	0.10	1	09/12/2024 02:33
Stirofos (Tetrachlorvinphos)	ND	0.10	1	09/12/2024 02:33
Terbacil	ND	0.10	1	09/12/2024 02:33
Terbufos (Terbuphos)	ND	0.10	1	09/12/2024 02:33
Thiobencarb	ND	0.10	1	09/12/2024 02:33
Tokuthion (Prothiofos)	ND	0.10	1	09/12/2024 02:33
Trichloronate (Agritox)	ND	0.10	1	09/12/2024 02:33

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Analytical Report

Client:	Enthalpy Analytical	**WorkOrder:**	2409412
Date Received:	09/06/2024 10:19	**Extraction Method:**	SW3550B
Date Prepared:	09/11/2024	**Analytical Method:**	SW8270E
Project:	EO-515289	**Unit:**	mg/kg

Organophosphorous Pesticides by GC-MS (EPA 8141 Basic Target List)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COMP-3	2409412-003A	Soil	08/30/2024	GC53 09112438.D	301619

Analytes	Result	RL	DF	Date Analyzed

Surrogates	REC (%)	Limits	
1-Bromo-2-Nitrobenzene	103	60-140	09/12/2024 02:33
Triphenyl phosphate	113	60-140	09/12/2024 02:33

Analyst(s): JS

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Analytical Report

Client:	Enthalpy Analytical	**WorkOrder:**	2409412
Date Received:	09/06/2024 10:19	**Extraction Method:**	SW8151A
Date Prepared:	09/11/2024	**Analytical Method:**	SW8151A
Project:	EO-515289	**Unit:**	mg/kg

Chlorinated Herbicides by GC-ECD

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COMP-1	2409412-001A	Soil	08/30/2024	GC15A 09112432.D	301618

Analytes	Result	RL	DF	Date Analyzed
Acifluorfen	ND	0.20	20	09/12/2024 02:59
Bentazon	ND	0.20	20	09/12/2024 02:59
Chloramben	ND	0.20	20	09/12/2024 02:59
Clopyralid	ND	0.20	20	09/12/2024 02:59
2,4-D (Dichlorophenoxyacetic acid)	ND	0.20	20	09/12/2024 02:59
2,4-DB	ND	0.20	20	09/12/2024 02:59
Dalapon	ND	0.20	20	09/12/2024 02:59
DCPA (mono & diacid)	ND	0.20	20	09/12/2024 02:59
Dicamba	ND	0.20	20	09/12/2024 02:59
3,5-Dichlorobenzoic Acid	ND	0.20	20	09/12/2024 02:59
Dichloroprop	ND	0.20	20	09/12/2024 02:59
Dinoseb (DNBP)	ND	0.20	20	09/12/2024 02:59
5-Hydroxydicamba	ND	0.20	20	09/12/2024 02:59
MCPA	ND	20	20	09/12/2024 02:59
MCPP	ND	20	20	09/12/2024 02:59
4-Nitrophenol	ND	0.20	20	09/12/2024 02:59
Pentachlorophenol (PCP)	ND	0.20	20	09/12/2024 02:59
Picloram	ND	0.20	20	09/12/2024 02:59
Quinclorac	ND	0.20	20	09/12/2024 02:59
2,4,5-T (Trichlorophenoxy acetic acid)	ND	0.20	20	09/12/2024 02:59
2,4,5-TP (Silvex)	ND	0.20	20	09/12/2024 02:59

Surrogates	REC (%)	Limits	
DCAA	86	63-121	09/12/2024 02:59

Analyst(s): DP

Analytical Comments: a3

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Analytical Report

Client:	Enthalpy Analytical	**WorkOrder:**	2409412
Date Received:	09/06/2024 10:19	**Extraction Method:**	SW8151A
Date Prepared:	09/11/2024	**Analytical Method:**	SW8151A
Project:	EO-515289	**Unit:**	mg/kg

Chlorinated Herbicides by GC-ECD

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COMP-2	2409412-002A	Soil	08/30/2024	GC15A 09112433.D	301618

Analytes	Result	RL	DF	Date Analyzed
Acifluorfen	ND	0.20	20	09/12/2024 03:24
Bentazon	ND	0.20	20	09/12/2024 03:24
Chloramben	ND	0.20	20	09/12/2024 03:24
Clopyralid	ND	0.20	20	09/12/2024 03:24
2,4-D (Dichlorophenoxyacetic acid)	ND	0.20	20	09/12/2024 03:24
2,4-DB	ND	0.20	20	09/12/2024 03:24
Dalapon	ND	0.20	20	09/12/2024 03:24
DCPA (mono & diacid)	ND	0.20	20	09/12/2024 03:24
Dicamba	ND	0.20	20	09/12/2024 03:24
3,5-Dichlorobenzoic Acid	ND	0.20	20	09/12/2024 03:24
Dichloroprop	ND	0.20	20	09/12/2024 03:24
Dinoseb (DNBP)	ND	0.20	20	09/12/2024 03:24
5-Hydroxydicamba	ND	0.20	20	09/12/2024 03:24
MCPA	ND	20	20	09/12/2024 03:24
MCPP	ND	20	20	09/12/2024 03:24
4-Nitrophenol	ND	0.20	20	09/12/2024 03:24
Pentachlorophenol (PCP)	ND	0.20	20	09/12/2024 03:24
Picloram	ND	0.20	20	09/12/2024 03:24
Quinclorac	ND	0.20	20	09/12/2024 03:24
2,4,5-T (Trichlorophenoxy acetic acid)	ND	0.20	20	09/12/2024 03:24
2,4,5-TP (Silvex)	ND	0.20	20	09/12/2024 03:24

Surrogates	REC (%)	Limits	
DCAA	90	63-121	09/12/2024 03:24

Analyst(s): DP

Analytical Comments: a3

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Analytical Report

Client:	Enthalpy Analytical	**WorkOrder:**	2409412
Date Received:	09/06/2024 10:19	**Extraction Method:**	SW8151A
Date Prepared:	09/11/2024	**Analytical Method:**	SW8151A
Project:	EO-515289	**Unit:**	mg/kg

Chlorinated Herbicides by GC-ECD

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
COMP-3	2409412-003A	Soil	08/30/2024	GC15A 09112434.D	301618

Analytes	Result	RL	DF	Date Analyzed
Acifluorfen	ND	0.20	20	09/12/2024 03:49
Bentazon	ND	0.20	20	09/12/2024 03:49
Chloramben	ND	0.20	20	09/12/2024 03:49
Clopyralid	ND	0.20	20	09/12/2024 03:49
2,4-D (Dichlorophenoxyacetic acid)	ND	0.20	20	09/12/2024 03:49
2,4-DB	ND	0.20	20	09/12/2024 03:49
Dalapon	ND	0.20	20	09/12/2024 03:49
DCPA (mono & diacid)	ND	0.20	20	09/12/2024 03:49
Dicamba	ND	0.20	20	09/12/2024 03:49
3,5-Dichlorobenzoic Acid	ND	0.20	20	09/12/2024 03:49
Dichloroprop	ND	0.20	20	09/12/2024 03:49
Dinoseb (DNBP)	ND	0.20	20	09/12/2024 03:49
5-Hydroxydicamba	ND	0.20	20	09/12/2024 03:49
MCPA	ND	20	20	09/12/2024 03:49
MCPP	ND	20	20	09/12/2024 03:49
4-Nitrophenol	ND	0.20	20	09/12/2024 03:49
Pentachlorophenol (PCP)	ND	0.20	20	09/12/2024 03:49
Picloram	ND	0.20	20	09/12/2024 03:49
Quinclorac	ND	0.20	20	09/12/2024 03:49
2,4,5-T (Trichlorophenoxy acetic acid)	ND	0.20	20	09/12/2024 03:49
2,4,5-TP (Silvex)	ND	0.20	20	09/12/2024 03:49

Surrogates	REC (%)	Limits	
DCAA	103	63-121	09/12/2024 03:49

Analyst(s): DP

Analytical Comments: a3

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Quality Control Report

Client:	Enthalpy Analytical	**WorkOrder:**	2409412
Date Prepared:	09/11/2024	**BatchID:**	301619
Date Analyzed:	09/11/2024	**Extraction Method:**	SW3550B
Instrument:	GC53	**Analytical Method:**	SW8270E
Matrix:	Soil	**Unit:**	mg/kg
Project:	EO-515289	**Sample ID:**	MB/LCS/LCSD-301619

QC Summary Report for SW8270E (ON/P Pesticides)

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Alachlor	ND	0.049	0.10	-	-	-
Atrazine	ND	0.069	0.10	-	-	-
Azinphos methyl (Guthion)	ND	0.066	0.10	-	-	-
Bolstar (Sulprofos)	ND	0.040	0.10	-	-	-
Chlorpyrifos	ND	0.051	0.10	-	-	-
Coumaphos	ND	0.062	0.10	-	-	-
Demeton	ND	0.051	0.10	-	-	-
Diazinon	ND	0.053	0.10	-	-	-
Dichlorvos (DDVP)	ND	0.022	0.10	-	-	-
Dimethoate	ND	0.046	0.10	-	-	-
Disulfoton (Di-Syston)	ND	0.039	0.10	-	-	-
EPN	ND	0.059	0.10	-	-	-
EPTC	ND	0.042	0.10	-	-	-
Ethion	ND	0.064	0.10	-	-	-
Ethoprop	ND	0.046	0.10	-	-	-
Ethyl parathion	ND	0.040	0.10	-	-	-
Fensulfothion	ND	0.027	0.10	-	-	-
Fenthion	ND	0.055	0.10	-	-	-
Fonofos	ND	0.056	0.10	-	-	-
Malathion	ND	0.040	0.10	-	-	-
Mevinphos (Phosdrin)	ND	0.054	0.10	-	-	-
Molinate	ND	0.039	0.10	-	-	-
Methyl parathion	ND	0.031	0.10	-	-	-
Phorate (Thimet)	ND	0.035	0.10	-	-	-
Prometon	ND	0.029	0.10	-	-	-
Ronnel	ND	0.047	0.10	-	-	-
Simazine	ND	0.057	0.10	-	-	-
Stirofos (Tetrachlorvinphos)	ND	0.053	0.10	-	-	-
Terbacil	ND	0.040	0.10	-	-	-
Terbufos (Terbuphos)	ND	0.031	0.10	-	-	-
Thiobencarb	ND	0.070	0.10	-	-	-
Tokuthion (Prothiofos)	ND	0.054	0.10	-	-	-
Trichloronate (Agritox)	ND	0.048	0.10	-	-	-
Surrogate Recovery						
1-Bromo-2-Nitrobenzene	0.23			0.2	116	60-140
Triphenyl phosphate	0.19			0.2	94	60-140

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Quality Control Report

Client:	Enthalpy Analytical	**WorkOrder:**	2409412
Date Prepared:	09/11/2024	**BatchID:**	301619
Date Analyzed:	09/11/2024	**Extraction Method:**	SW3550B
Instrument:	GC53	**Analytical Method:**	SW8270E
Matrix:	Soil	**Unit:**	mg/kg
Project:	EO-515289	**Sample ID:**	MB/LCS/LCSD-301619

QC Summary Report for SW8270E (ON/P Pesticides)

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Alachlor	0.65	0.63	0.60	108	106	50-160	2.61	20
Atrazine	0.66	0.64	0.60	110	107	50-160	3.28	20
Azinphos methyl (Guthion)	0.55	0.53	0.60	91	88	60-140	3.09	20
Bolstar (Sulprofos)	0.60	0.58	0.60	100	96	60-140	3.69	20
Chlorpyrifos	0.63	0.61	0.60	105	102	60-140	3.08	20
Coumaphos	0.57	0.54	0.60	94	91	60-140	3.69	20
Demeton	0.60	0.58	0.60	99	97	60-140	2.76	20
Diazinon	0.64	0.61	0.60	106	102	60-140	3.85	20
Dichlorvos (DDVP)	0.62	0.61	0.60	104	101	60-140	2.89	20
Dimethoate	0.62	0.60	0.60	103	100	60-140	3.13	20
Disulfoton (Di-Syston)	0.64	0.62	0.60	107	103	50-160	3.73	20
EPN	0.59	0.56	0.60	98	94	60-140	4.38	20
EPTC	0.62	0.60	0.60	103	100	60-140	3.26	20
Ethion	0.57	0.55	0.60	96	92	60-140	3.94	20
Ethoprop	0.62	0.60	0.60	104	99	60-140	4.53	20
Ethyl parathion	0.60	0.58	0.60	100	96	60-140	3.42	20
Fensulfothion	0.58	0.56	0.60	97	93	60-140	4.63	20
Fenthion	0.64	0.62	0.60	106	103	50-160	3.36	20
Fonofos	0.65	0.63	0.60	109	105	60-140	3.74	20
Malathion	0.60	0.58	0.60	100	97	60-140	3.31	20
Mevinphos (Phosdrin)	0.61	0.60	0.60	102	100	60-140	1.26	20
Molinate	0.64	0.61	0.60	106	102	60-140	3.69	20
Methyl parathion	0.60	0.58	0.60	100	97	50-160	2.39	20
Phorate (Thimet)	0.60	0.57	0.60	100	96	60-140	4.60	20
Prometon	0.64	0.63	0.60	107	105	60-140	2.37	20
Ronnel	0.64	0.62	0.60	106	103	60-140	3.24	20
Simazine	0.67	0.64	0.60	111	106	60-140	4.23	20
Stirofos (Tetrachlorvinphos)	0.59	0.57	0.60	99	95	60-140	3.73	20
Terbacil	0.66	0.63	0.60	110	106	60-140	4.46	20
Terbufos (Terbuphos)	0.61	0.59	0.60	102	98	60-140	3.61	20
Thiobencarb	0.64	0.64	0.60	107	106	60-140	0.421	20
Tokuthion (Prothiofos)	0.61	0.58	0.60	101	97	60-140	4.26	20
Trichloronate (Agritox)	0.65	0.63	0.60	108	104	60-140	3.36	20
Surrogate Recovery								
1-Bromo-2-Nitrobenzene	0.21	0.21	0.20	105	103	60-140	2.54	20
Triphenyl phosphate	0.25	0.25	0.20	124	124	60-140	0.413	20

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Quality Control Report

Client:	Enthalpy Analytical	**WorkOrder:**	2409412
Date Prepared:	09/11/2024	**BatchID:**	301618
Date Analyzed:	09/11/2024 - 09/12/2024	**Extraction Method:**	SW8151A
Instrument:	GC15A	**Analytical Method:**	SW8151A
Matrix:	Soil	**Unit:**	mg/kg
Project:	EO-515289	**Sample ID:**	MB/LCS/LCSD-301618

QC Summary Report for SW8151A

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acifluorfen	ND	0.0053	0.010	-	-	-
Bentazon	ND	0.0033	0.010	-	-	-
Chloramben	ND	0.0041	0.010	-	-	-
2,4-D (Dichlorophenoxyacetic acid)	ND	0.0029	0.010	-	-	-
2,4-DB	ND	0.0061	0.010	-	-	-
Dalapon	ND	0.0061	0.010	-	-	-
DCPA (mono & diacid)	ND	0.0032	0.010	-	-	-
Dicamba	ND	0.0033	0.010	-	-	-
3,5-Dichlorobenzoic Acid	ND	0.0032	0.010	-	-	-
Dichloroprop	ND	0.0030	0.010	-	-	-
Dinoseb (DNBP)	ND	0.0032	0.010	-	-	-
MCPA	ND	0.38	1.0	-	-	-
MCPP	ND	0.36	1.0	-	-	-
4-Nitrophenol	ND	0.0074	0.010	-	-	-
Pentachlorophenol (PCP)	ND	0.0047	0.010	-	-	-
Picloram	ND	0.0050	0.010	-	-	-
2,4,5-T (Trichlorophenoxy acetic acid)	ND	0.0051	0.010	-	-	-
2,4,5-TP (Silvex)	ND	0.0028	0.010	-	-	-
Surrogate Recovery						
DCAA	0.091			0.1	91	77-116

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Quality Control Report

Client:	Enthalpy Analytical	**WorkOrder:**	2409412
Date Prepared:	09/11/2024	**BatchID:**	301618
Date Analyzed:	09/11/2024 - 09/12/2024	**Extraction Method:**	SW8151A
Instrument:	GC15A	**Analytical Method:**	SW8151A
Matrix:	Soil	**Unit:**	mg/kg
Project:	EO-515289	**Sample ID:**	MB/LCS/LCSD-301618

QC Summary Report for SW8151A

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acifluorfen	0.085	0.081	0.10	85	81	31-145	4.75	30
Bentazon	0.10	0.096	0.10	101	96	60-140	4.50	30
Chloramben	0.11	0.11	0.10	110	106	60-140	4.21	30
2,4-D (Dichlorophenoxyacetic acid)	0.093	0.088	0.10	93	88	72-121	4.97	30
2,4-DB	0.092	0.087	0.10	92	87	69-134	5.96	30
Dalapon	0.10	0.098	0.10	103	98	73-117	4.60	30
DCPA (mono & diacid)	0.092	0.087	0.10	92	87	60-140	4.80	30
Dicamba	0.095	0.091	0.10	95	91	71-121	4.57	30
3,5-Dichlorobenzoic Acid	0.096	0.091	0.10	96	91	60-140	4.90	30
Dichloroprop	0.094	0.090	0.10	94	90	60-140	4.68	30
Dinoseb (DNBP)	0.088	0.085	0.10	88	85	60-140	4.36	30
MCPA	9.1	8.6	10	91	86	60-140	5.97	30
MCPP	9.2	8.7	10	92	87	60-140	4.93	30
4-Nitrophenol	0.15	0.14	0.10	147,F7	137	60-140	6.95	30
Pentachlorophenol (PCP)	0.094	0.090	0.10	94	90	68-135	4.68	30
Picloram	0.090	0.086	0.10	90	86	60-140	4.87	30
2,4,5-T (Trichlorophenoxy acetic acid)	0.095	0.090	0.10	95	90	60-140	4.61	30
2,4,5-TP (Silvex)	0.093	0.089	0.10	93	89	70-130	4.55	30
Surrogate Recovery								
DCAA	0.097	0.093	0.10	97	93	77-116	4.32	30

McCampbell Analytical, Inc.

1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2409412 **ClientCode: ENO** **QuoteID: 242515**

☐ WaterTrax ☐ CLIP ☐ EDF ☐ EQuIS ☐ Dry-Weight ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

☐ Detection Summary ☑ Excel [A1_Standard _QC]

Report to:
Richard Villafania
Enthalpy Analytical
931 West Barkley Avenue
Orange, CA 92868
(714) 771-6900 FAX:

Email: Richard.villafania@enthalpy.com; incoming
cc/3rd Party:
PO: 058321
Project: EO-515289

Bill to:
Accounts Payable/Enthalpy SoCal
Montrose Environmental Group
PO Box 842165
Boston, MA 02284-2165
003EL_ap@montrose-env.com

Requested TAT: 5 days;

Date Received: **09/06/2024**
Date Logged: **09/10/2024**

Lab ID	ClientSampID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
					Requested Tests (See legend below)											
2409412-001	COMP-1	Soil	8/30/2024 00:00	☐	A	A	A									
2409412-002	COMP-2	Soil	8/30/2024 00:00	☐	A	A	A									
2409412-003	COMP-3	Soil	8/30/2024 00:00	☐	A	A	A									

Test Legend:

1	8141_S	2	8151_S	3	PRDisposal Fee	4	
5		6		7		8	
9		10		11		12	

Project Manager: Yen Cao

Prepared by: Agustina Venegas

Comments:

NOTE: Soil samples are discarded 60 days after receipt unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: ENTHALPY ANALYTICAL
Client Contact: Richard Villafania
Contact's Email: Richard.villafania@enthalpy.com; incomingreports@enthalpy.com

Project: EO-515289
Comments:

Work Order: 2409412
QC Level: LEVEL 2
Date Logged: 9/10/2024

☐ WaterTrax ☐ CLIP ☐ EDF ☑ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

LabID	ClientSampID	Matrix	Test Name	Cont./ Comp.	Bottle & Preservative	U**	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	Sub Out
001A	COMP-1	Soil	SW8151A (Chlorinated Herbicides)	1	4OZ GJ, Unpres	☐	☐	☐	8/30/2024	5 days	9/13/2024		☐	☐
			SW8270E (ON/P Pesticides - EPA 8141 target list)			☐	☐	☐		5 days	9/13/2024		☐	☐
002A	COMP-2	Soil	SW8151A (Chlorinated Herbicides)	1	4OZ GJ, Unpres	☐	☐	☐	8/30/2024	5 days	9/13/2024		☐	☐
			SW8270E (ON/P Pesticides - EPA 8141 target list)			☐	☐	☐		5 days	9/13/2024		☐	☐
003A	COMP-3	Soil	SW8151A (Chlorinated Herbicides)	1	4OZ GJ, Unpres	☐	☐	☐	8/30/2024	5 days	9/13/2024		☐	☐
			SW8270E (ON/P Pesticides - EPA 8141 target list)			☐	☐	☐		5 days	9/13/2024		☐	☐

NOTES: * STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- ISM prep requires 5 to 10 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 6 to 11 days from sample submission). Due date listed on WO summary will not accurately reflect the time needed for sample preparation.

- Organic extracts are held for 40 days before disposal; Inorganic extract are held for 30 days.

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

U = An unpreserved container was received for a method that suggests a preservation in order to extend hold time for analysis.**

Cont./Comp. = Containers /Composites

2409412

ENTHALPY ANALYTICAL

Enthalpy Analytical - Orange
Orange, CA 92868
(714) 771-6900 / Fax: (510) 486-0532

Subcontract Laboratory:
McCampbell Analytical, Inc.
1534 Willow Pass Rd.
Pittsburg, CA 94565
ATTN: Quote ID: 242515
PO #: PO-058321

Enthalpy Order: EO-515289
PM: Richard Villafania
Email: richard.villafania@enthalpy.com
CC: incomingreports@enthalpy.com
Phone: (714) 771-6900

Results Due: Standard TAT
Report Level: II
Report To: RL
EDDs: Standard Excel EDD

Notes:

Sample ID	Collected	Lab ID	# Cont.	Matrix	Analysis Requested	Comment
COMP-1	30-AUG-2024 00:00	515289-010	1	Soil	Organophosphorus Pesticides	
				Soil	EPA 8151A Chlorinated Herbicides	
COMP-2	30-AUG-2024 00:00	515289-011	1	Soil	Organophosphorus Pesticides	
				Soil	EPA 8151A Chlorinated Herbicides	
COMP-3	30-AUG-2024 00:00	515289-012	1	Soil	Organophosphorus Pesticides	
				Soil	EPA 8151A Chlorinated Herbicides	

Notes:	Relinquished By:	Received By:
	JELBERT QUITUGUA J. Quitugua 1445	[illegible]
	Date: 9/5/24	Date: 9/6/24 1019A
	Date:	Date:
	Date:	Date:

GSO# 5619945346

2.0 wt.
IR39

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	Enthalpy Analytical	Date and Time Received:	9/6/2024 10:19
Project:	EO-515289	Date Logged:	9/10/2024
		Received by:	Agustina Venegas
WorkOrder №:	2409412 Matrix: Soil	Logged by:	Agustina Venegas
Carrier:	Golden State Overnight		

Chain of Custody (COC) Information

	Yes	No	NA
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Sample IDs noted by Client on COC?	☑	☐	
Date and Time of collection noted by Client on COC?	☑	☐	
Sampler's name noted on COC?	☐	☑	
COC agrees with Quote?	☑	☐	☐

Sample Receipt Information

	Yes	No	NA
Custody seals intact on shipping container/cooler?	☐	☐	☑
Custody seals intact on sample bottles?	☐	☐	☑
Shipping container/cooler in good condition?	☑	☐	
Samples in proper containers/bottles?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	

Sample Preservation and Hold Time (HT) Information

	Yes	No	NA
All samples received within holding time?	☑	☐	☐
Samples Received on Ice?	☑	☐	

(Ice Type: WET ICE)

Sample/Temp Blank temperature	Temp: 2°C		☐
ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)?	☐	☐	☑
Sample labels checked for correct preservation?	☑	☐	
pH acceptable upon receipt (Metal: <2)?	☐	☐	☑

UCMR Samples:

pH tested and acceptable upon receipt (200.7: ≤2; 533: 6 - 8; 537.1: 6 - 8)?	☐	☐	☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L) [not applicable to 200.7]?	☐	☐	☑

Comments:

Appendix G

Acoustical Analysis

ACOUSTICAL ANALYSIS

SANTA FE WEST SUBDIVISION
TULARE, CALIFORNIA

WJVA Project No. 24-70

PREPARED FOR

4CREEKS, INC.
323 SOUTH SANTA FE AVENUE, SUITE A
VISALIA, CA 93292

PREPARED BY

WJV ACOUSTICS, INC.
VISALIA, CALIFORNIA

wjv acoustics

MAY 6, 2025

INTRODUCTION

The project is a proposed 171-lot single-family residential development, to be located on 32.97-acre site of currently undeveloped farmland. The project site is located at the northeast corner of N. E Street and Gail Street, in Tulare California.

As the project site is located adjacent to the UPRR Railway and N. E Street, the City of Tulare has requested this acoustical analysis to quantify project site noise exposure and determine the extent of noise mitigation that may be required for compliance with applicable noise level standards. This analysis, prepared by WJV Acoustics, Inc. (WJVA), is based upon a Tentative Subdivision Map prepared by 4Creeks, traffic data provided by Tulare Association of Governments (TCAG) and the findings of on-site noise level measurements. Revisions to the site plan (Tentative Subdivision Map) may affect the findings and recommendations of this report. The project site plan is provided as Figure 1.

Appendix A provides definitions of the acoustical terminology used in this report. Unless otherwise stated, all sound levels reported in this analysis are A-weighted sound pressure levels in decibels (dB). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A-weighted sound levels, as they correlate well with public reaction to noise. Appendix B provides typical A-weighted sound levels for common noise sources.

In terms of human perception, a 5 dB increase or decrease is considered to be a noticeable change in noise levels. Additionally, a 10 dB increase or decrease is perceived by the human ear as half as loud or twice as loud. In terms of perception, generally speaking the human ear cannot perceive an increase (or decrease) in noise levels less than 3 dB.

NOISE EXPOSURE CRITERIA

The CEQA Guidelines apply the following questions for the assessment of significant noise impacts for a project:

a. Would the project result in 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?

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

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?

a. Noise Level Standards

CITY OF TULARE

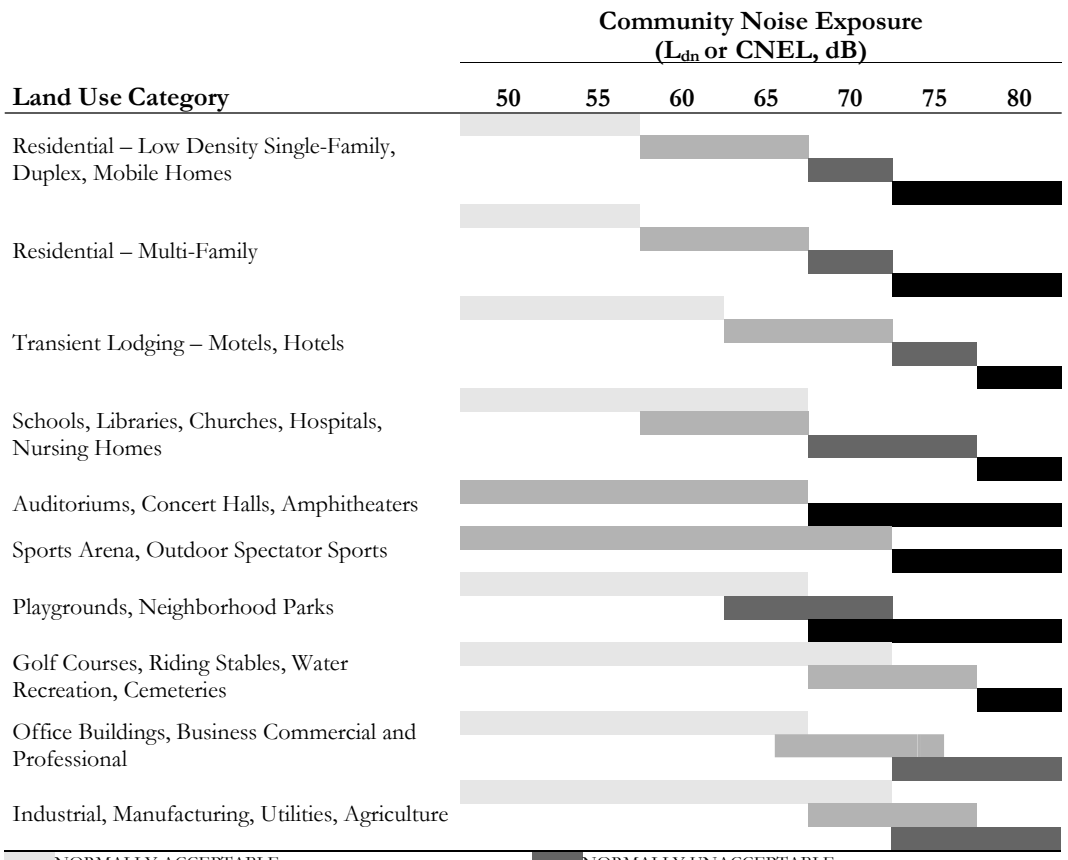
General Plan

The City of Tulare Noise Element of the General Plan (adopted 10/7/14) sets noise compatibility standards for transportation noise sources in terms of the Day-Night Average Level (L_{dn}). Policy NOI-P2.1 of the noise element establishes a land use compatibility criterion of 60 dB L_{dn} for exterior noise exposure within outdoor activity areas of residential land uses. Outdoor activity areas generally include backyards of single-family residences, individual patios or decks of multi-family developments and common outdoor recreation areas of multi-family developments. The policy also states that where it is not possible to reduce exterior noise levels within outdoor activity areas to 60 dB L_{dn} or less after the practical application of the best available noise reduction technology an exterior noise level up to 65 dB L_{dn} will be allowed. The intent of the exterior noise level requirement is to provide an acceptable noise environment for outdoor activities and recreation.

Table I provides the land use compatibility noise criteria for various land uses within the City of Tulare. Noise levels for specific land uses are determined to be “Normally Acceptable”, “Conditionally Acceptable”, “Normally Unacceptable” or “Clearly Unacceptable”.

Table I: Land Use Compatibility for Community Noise Environments

Figure 7-3 Land Use Compatibility for Community Noise Environments



Notes: Consideration in determination of noise compatible land use.

A. Normalized Noise Exposure Information Desired. Where sufficient data exists, evaluate land use suitability with respect to a "normalized" value of CNEL or L_{dn}. Normalized values are obtained by adding or subtracting the constraints described in Table 7-1 to the measured or calculated value of CNEL or L_{dn}.

B. Noise Source Characteristics. The land use noise compatibility recommendations should be viewed in relation to the specific source of the noise. For example, aircraft and railroad noise is normally made up of higher single noise events than auto traffic but occurs less frequently. Therefore, different sources yielding the same composite noise exposure do not necessarily create the same noise environment. The State Aeronautics Act uses 675 dB CNEL as the criterion which airports must eventually meet to protect existing residential communities from unacceptable exposure to aircraft noise. In order to facilitate the purposes of the Act, one of which is to encourage land uses compatible with the 65 dB CNEL criterion wherever possible, and in order to facilitate the ability of airports to comply with the Act, residential uses located in Community Noise Exposure Areas greater than 65 dB should be discouraged and considered located within normally unacceptable areas.

Additionally, Policy NOI-P2.1 of the noise element requires that interior noise levels attributable to exterior transportation noise sources not exceed 45 dB L_{dn}. The intent of the interior noise level standard is to provide an acceptable noise environment for indoor communication and sleep.

Policy NOI-P3.3 of the noise element provides other guidance relevant to the project: *New development of industrial, commercial, or other noise-generating land uses (including roadways, railroads, and airports) may not be permitted if resulting noise levels will exceed 60 dB L_{dn} (or CNEL)at the boundary of areas containing or planned and zoned for residential or other noise-sensitive land uses, unless it can be shown through acoustical analysis that the noise generated would be mitigated to levels compatible with the adjacent sensitive uses.*

Municipal Code

Chapter 6.40 (Noise) of The City of Tulare Municipal Code (Noise Ordinance) provides additional guidance in relation to noise concerns and compatibility issues within the City of Tulare. However, The Noise Ordinance does not provide explicit noise level standards applicable for the project. Furthermore, Section 6.40.073(D) (Noise source exemptions) of the Noise Ordinance explicitly states that noise generated at the International Agri-Center is exempt from the noise standards and guidelines provided in the Municipal Code.

Railroad Vibration

The City of Tulare Noise Element of General Plan contains no specific criteria that may be used to evaluate the potential for excessive vibration within the project site due to railroad operations. This is typical of most local jurisdictions in California, as it is generally assumed that at normal residential building setbacks the potential for annoyance due to railroad vibration is not a significant concern. The State of California also does not recommend criteria for determining the potential for annoyance due to vibration, although Caltrans considers the potential for structural damage due to vibration during roadway construction projects. The thresholds for prevention of structural damage are well above the vibration levels experienced at typical residential setbacks along a railroad.

The Federal Transit Administration (FTA) Guidance Manual contains vibration annoyance criteria that were originally developed to address ground-borne vibration resulting from new rail rapid transit systems. It is WJVA's opinion that the FTA criteria are applicable to the project. The FTA criteria distinguish between frequent and infrequent events, and are based upon the maximum vibration velocity level (VdB) for a single event. Events that occur 70 or less times per day are considered *infrequent* events and events occurring more than 70 times per day are considered *frequent* events. The recommended FTA vibration impact assessment thresholds for residential buildings are 80 VdB for infrequent events and 72 VdB for frequent events.

PROJECT SITE NOISE EXPOSURE

The project site is located at the northeast corner of N. E Street and Gail Street, in Tulare California. The project site is bordered by agricultural land uses to the north, the Union Pacific Railroad Line (UPRR) to the east, agricultural/industrial land uses to the south, and residential land uses to the west. The project site is exposed to traffic noise associated with vehicles on N. E Street at the western potion of the project site and to UPRR railroad operations at the eastern portion of the project site.

The distance between the centerline of N. E Street to the approximate center point of the closest proposed residential backyards to N. E Street is approximately 75 feet. The distance between the centerline of the UPRR tracks to the approximate center point of the closest proposed residential backyards to UPRR tracks is approximately 135 feet.

Traffic Noise Exposure:

Noise exposure from traffic on N. E Street was calculated for existing and future (2046) conditions using the FHWA Traffic Noise Model and traffic data obtained from the Tulare County Association of Governments (TCAG).

WJVA utilized the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108). The FHWA Model is a standard analytical method used for roadway traffic noise calculations. The model is based upon reference energy emission levels for automobiles, medium trucks (2 axles) and heavy trucks (3 or more axles), with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within ±1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical day and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Noise level monitoring and a concurrent traffic count were conducted by WJVA along N. E Street, within the project site on January 22, 2025. The purpose of the noise monitoring was to evaluate the accuracy of the FHWA Model in describing noise exposure from traffic along N. E Street, within the project site. The noise monitoring site was located approximately 40 feet from the center of N. E Street. The posted vehicle speed limit on N. E Street near the project site was 40 miles per hour (mph). The traffic noise monitoring location is provided on Figure 2.

Noise monitoring equipment consisted of a Larson-Davis Laboratories Model LDL-820 sound level analyzer equipped with a B&K Type 4176 1/2” microphone. This equipment complies with the specifications of the American National Standards Institute (ANSI) for Type I (Precision) sound level meters. The meter was calibrated in the field prior to use with a B&K Type 4230 acoustic calibrator to ensure the accuracy of the measurements. The microphone was placed on a tripod at 5 feet above the ground.

Noise measurements were conducted in terms of the equivalent energy sound level (L_{eq}). The measured L_{eq} values were compared to L_{eq} value calculated (predicted) by the FHWA Model using as inputs the traffic volumes, truck mix and vehicle speed observed during the noise measurements. The results of that comparison are shown in Table II.

TABLE II

COMPARISON OF MEASURED AND PREDICTED (FHWA MODEL) NOISE LEVELS SANTA FE WEST SUBDIVISION, TULARE

	N. E Street
Measurement Start Time	11:50 a.m.
Observed # Autos/Hr.	32
Observed # Medium Trucks/Hr.	4
Observed # Heavy Trucks/Hr.	0
Observed Speed (MPH)	40
Distance, ft. (from center of roadway)	40
L_{eq}, dBA (Measured)	56.6
L_{eq}, dBA (Predicted)	54.4
Difference between Predicted and Measured L_{eq}, dBA	**2.2**

Note: FHWA "soft" site assumed for calculations.
Source: WJV Acoustics, Inc.

From Table II it may be determined that the traffic noise levels predicted by the FHWA Model were 2.2 dB lower than those measured for the conditions observed at the time of the noise measurements for N. E Street. This over prediction of the model is due to the relatively low number of vehicles on the roadway, and the impact of extraneous noise sources, and an adjustment to the noise model is not considered to be necessary.

Annual Average Daily Traffic (AADT) data for the above-described roadways were obtained from traffic counts conducted by Metro Traffic Data (existing) and Tulare County Association of Governments (2046). Truck percentages and the day/night distribution of traffic were estimated by WJVA, based upon previous studies conducted in the project vicinity. Table III summarizes annual average traffic data used to model noise exposure within the project site.

TABLE III TRAFFIC NOISE MODELING ASSUMPTIONS SANTA FE WEST SUBDIVISION, TULARE		
	N. E STREET	
	Existing	2046
Annual Avenue Daily Traffic (AADT)	151	6,857
Day/Night Split (%)	90/10	
Assumed Vehicle Speed (mph)	40	
% Medium Trucks (% AADT)	2	
% Heavy Trucks (% AADT)	1	

Sources: TCAG
Metro Traffic Data
WJV Acoustics, Inc.

Using data from Table III, the FHWA Model, annual average traffic noise exposure was calculated for the closest proposed backyards from N. E Street. Table IV provides the noise exposure levels for N. E Street, at the closest proposed residential lots to the roadway.

TABLE IV MODELED TRAFFIC NOISE LEVELS, N. WILLOW AVENUE, dB, L_{dn} SANTA FE WEST SUBDIVISION, TULARE		
Roadway	Existing Conditions	2046 Conditions
N. E. Street	44	61

Source: WJV Acoustics
TCAG
Metro Traffic Data

Reference to Table IV indicates that the traffic noise exposure at the closest lots to N. E Street would be approximately 44 dB L_{dn} for existing conditions and approximately 61 dB L_{dn} for future (2046). Such noise exposure levels (2046 traffic conditions) exceed the City's 60 dB L_{dn} exterior noise level standard and mitigation measures are required for compliance with the City's exterior noise level standard along N. E Street.

Railroad Noise Exposure:

The UPRR Railway line is located east of the project site. The railroad consists of a double-track mainline, and the tracks are elevated above current project site elevation by approximately three (3) feet. The closest grade crossing is located at Prosperity Avenue, approximately 1,500 south of the project site. The eastern portion of the project site, adjacent to the UPRR railroad line, is also impacted by traffic noise associated with vehicles traveling along N. J Street. To quantify project site train noise exposure (as well as traffic along N. J Street), WJVA conducted continuous, 24-hour noise level measurements within the project site.

Noise level monitoring was conducted by WJVA at two (2) locations (LT-1 and LT-2) within the project site over a 2-day period, between January 23-24, 2025. Noise levels were measured continuously, using automated noise level meters. Both noise measurement sites were located at a setback distance of approximately 125-135 feet from the UPRR railroad line, the approximate setback distance of the closest proposed residential outdoor activity areas (backyards). Site LT-1 was located at the northern portion of the project site, and Site LT-2 was located at the southern portion of the project site. The locations of the two train noise monitoring sites are provided as Figure 2. Figure 3 provides a photograph of site LT-1 and Figure 4 and Figure 5 graphically present the measured noise levels at the site. Figure 6 provides a photograph of site LT-2 and Figure 7 and Figure 8 graphically present the measured noise levels at the site.

Noise monitoring equipment consisted of Larson-Davis Laboratories Model LDL-820 sound level analyzers equipped with B&K Type 4176 1/2" microphones. The equipment complies with the specifications of the American National Standards Institute (ANSI) for Type I (Precision) sound level meters. The meters were calibrated in the field prior to use with a B&K Type 4230 acoustic calibrator to ensure the accuracy of the measurements. The microphones were placed on tripods at 5 feet above the ground. The noise level data is summarized below in Table V.

TABLE V

SUMMARY OF MEASURED TRAIN NOISE LEVELS
SANTA FE WEST SUBDIVISION, TULARE
JANUARY 23 & 24, 2025

Noise Measurement Site	24-HOUR NOISE LEVEL EXPOSURE, DBA L_{DN} AVERAGE (RANGE)
LT-1	70.2 (68.6-71.3)
LT-2	70.8 (69.1-72.0)

Source: WJV Acoustics, Inc.

As described above in Table V, the 24-hour noise level measurement data indicates that project site noise exposure is approximately 70 dB L_{dn} at site LT-1 and approximately 71 dB L_{dn} at site LT-2. Noise exposure levels at both sites indicate that project site noise exposure exceed the City of Tulare noise level standard of 60 dB L_{dn}, and mitigation measures must be incorporated into project design.

NOISE MITIGATION

N. E Street Frontage:

As described above, project site noise exposure at the outdoor activity areas (backyards) of closest proposed residential lots to N. E Street were calculated to be approximately 61 dB L_{dn} for future (2046) traffic conditions. Such levels exceed the City of Tulare "Normally Acceptable" exterior noise level standard of 60 dB L_{dn}.

To mitigate exterior traffic noise exposure along N. E Street, it will be necessary to construct a sound wall along the project roadway frontage. The sound wall would provide acoustical shielding of the outdoor activity areas (backyards) located closest to the roadway.

A sound wall insertion loss program based on the FHWA Model was used to calculate the insertion loss (noise reduction) provided by the proposed sound walls. The model calculates the insertion loss of a wall of given height based on the effective height of the noise source, height of the receiver, distance from the receiver to the wall, and distance from the noise source to the wall. The standard assumptions used in the sound wall calculations are effective source heights of 8, 2 and 0 feet above the roadway for heavy trucks, medium trucks, and automobiles, respectively. The standard height of a residential receiver is five (5) feet above the ground elevation.

Based upon the above-described assumptions and method of analysis, the noise level insertion loss values for sound walls of various heights were calculated. The calculations indicated that a sound wall along N. E Street, constructed to a minimum height of six (6) feet relative to the closest building pad elevations to the roadway would reduce traffic noise exposure within individual backyards by approximately 6 dB, resulting in a projected future noise exposure of approximately 55 dB L_{dn} at the closest residential lots along N. E Street.

The sound wall should be constructed along the entire project site frontage adjacent to N. E Street. The sound wall should be constructed to a minimum height of 6 feet above each lot pad elevation along N. E Street. Suitable construction materials include concrete blocks, masonry, or stucco on both sides of a wood or steel stud wall.

It should be noted, the above-described sound wall would be effective at first-floor receiver locations only, and would not provide acoustical shielding to any proposed second-floor receivers facing N. E Street. Therefore, if two-story construction is proposed along the homes adjacent to N. E Street, noise levels within individual second-floor balconies facing the roadway would exceed the 60 dB L_{dn} exterior noise standard.

UPRR Railroad Frontage:

As described above, project site noise exposure at the outdoor activity areas (backyards) of closest proposed residential lots to N. E Street were calculated to be approximately 61 dB L_{dn} for future (2046) traffic conditions. Such levels exceed the City of Tulare "Normally Acceptable" exterior noise exposure of 60 dB L_{dn} and the City's "Conditionally Acceptable" exterior noise exposure level of 65 dB L_{dn}, and mitigation measures must be incorporated into project design.

The effectiveness of noise barrier is determined by the geometric relationship between the noise source, barrier, and receiver. Noise barriers are most effective when they are located either close to the noise source or receiver. Due to the height of the railroad noise source on the elevated railbed (approximately three feet above project site elevation), the most effective location for a noise barrier for this project is as close to the receiver as practical.

A sound wall insertion loss program based on the FHWA Model was utilized to calculate the minimum required height of a noise barrier along the UPRR corridor. The model calculates the insertion loss (noise reduction) of a wall (or berm/wall combination) of given height based on the effective height of the noise source, height of the receiver, distance from the receiver to the wall, and distance from the noise source to the wall. It was assumed for the sound wall calculations that the effective railroad source height is 10 feet above the tracks. The standard height of a residential receiver is 5 feet above the finished floor elevation. All sound wall heights provided below are described as relative to finished lot grade elevations.

Based upon the above-described assumptions and method of analysis, the noise level insertion loss values and resulting noise levels for sound walls of various heights were calculated. Table VI provides the sound wall heights required to reduce noise exposure to both 60 L_{dn} (normally acceptable) and 65 dB L_{dn} (conditionally acceptable). According to City policy, noise exposure levels up to 65 dB L_{dn} may be acceptable if it is determined that it is not feasible to achieve a level of 60 dB L_{dn}.

TABLE VI

SOUND WALL HEIGHTS AND NOISE LEVELS

Lots	Height to Achieve 60 dB L_{dn}, Ft.	Height to Achieve 65 dB L_{dn}, Ft.
18, 36-55	12.5	7

[1]Sound wall not required to meet noise level standard
Source: WJV Acoustics, Inc.

From Table VI it can be determined that reducing exterior noise exposure within the backyards of lots 17 and 33-52 to 60 dB L_{dn} would require a sound wall constructed to a minimum height of 12.5 feet above individual lot grade elevations, and a sound wall constructed to a minimum height of 7 feet above individual lot grade elevations would be required to reduce noise levels to below 65 dB L_{dn}. The calculations and wall heights described in Table VI assume the sound wall

would be located at the eastern residential property lines, adjacent to the UPRR railroad line, as indicated on Figure 1.

The above-described noise barrier would be less effective at the second-floor level and the resulting noise exposure levels would exceed those described above in Table VI if second-story balconies facing the UPRR railroad are included in the residential lots adjacent to the UPRR railroad line.

It should be noted, as stated above, the City's exterior noise standards apply at "outdoor activity areas." For single-family residential land uses, the outdoor activity area is considered the backyard of each residence. The backyards at northern Lots 10-16 will be acoustically shielded from train noise by both the required sound wall along the railroad frontage as well as the residential construction itself. With the above-described sound wall in place, the exterior noise exposure levels within these backyards will comply with City of Tulare exterior noise level compatibility standards.

Interior Noise Mitigation:

The City of Tulare interior noise level standard is 45 dB L_{dn}. The above-described sound walls along both N. E Street as well as along the UPRR railroad line would be effective at attenuating noise at first floor receiver locations only. As such, the worst-case noise exposure at second-floor locations would remain approximately 61 dB L_{dn} at the lots adjacent to N. E Street and approximately 71 dB L_{dn} at the lots adjacent to the UPRR railroad line. This means that proposed residential construction would need to be capable of providing a minimum outdoor-to-indoor noise level reduction (NLR) of 16 dB (61-45=16) for the first row of homes along N. E Street and 26 dB (71-45=26) for the first row of homes adjacent to the UPRR line.

A specific analysis of interior noise levels was not performed, as construction details were not available at the time this analysis was prepared. However, it may be assumed that residential construction methods complying with current building code requirements will reduce exterior noise levels by up to 25 dB if windows and doors are closed. This will be sufficient for compliance with the City's 45 dB L_{dn} interior standard for the homes adjacent to N. E. Street. However, if two-story construction is proposed for the first row of homes adjacent to the UPRR line, additional mitigation measures must be incorporated into project design (unless a detailed analysis of interior noise levels based upon detailed construction plans indicates otherwise).

Based upon the information available at the time this analysis was prepared, WJVA recommends that all north-, south-, and east-facing windows within the second stories of the homes at Lot 17, Lot 33 through Lot 53 be constructed using windows with a minimum STC 35 rating. Windows are the acoustic "weak link" of a residential façade assembly. By providing STC 35 (or greater) windows in these areas, interior noise levels would be mitigated to below 45 dB L_{dn}. Additionally, requiring that it be possible for windows and doors to remain closed for sound insulation means that air conditioning or mechanical ventilation will be required.

Railroad Vibration:

The propagation of vibration through the ground is affected by many factors, including soil type and the physical connection between the vibration source and ground. Along railroads, soil/substrate conditions are primary factor in vibration propagation. Soils throughout the Central Valley are generally considered to be somewhat similar in particle size composition. As such, WJVA provides a discussion of vibration measurements previously conducted along a railroad line in the Fresno area, as a point of reference.

Vibration Measurements

Vibration measurements were conducted within a project site in Fresno, along the San Joaquin Valley Railroad (SJVR) line for comparison to the FTA criteria. The measurement setback distance was fifty (50) feet from the center of the SJVR line. For this project, the closest residential land uses are proposed at a setback distance of approximately 125 feet from the railroad line. As such, the vibration levels described below would be considered a worst-case assessment of project site railroad vibration levels.

Vibration measurement equipment consisted of Larson-Davis Laboratories Model 824 sound and vibration analyzer connected to a Bently Nevada Corporation Model 47633 velocity transducer. The transducer was mounted to a ½ inch-thick aluminum plate that was set directly on the ground. The vibration measurement system was calibrated prior to use with an IMI Model 699A02 calibrator.

During the measured train event WJVA staff observed the meter continuously. Vibration levels were typically in the range of 30-40 Vdb during the train pass by event. The vibration equipment logged the maximum vibration level during the event to be 49.3 Vdb. This maximum vibration level is well below the 80 Vdb guideline provided by the FTA. It should be noted, as proposed residential setbacks would be greater than 50 feet from the tracks (the distance at which the vibration measurement was conducted) the above-described train vibration levels should be considered a worst-case assessment of train vibration levels at the proposed residences closest to the railroad line.

Vibration levels along the UP line adjacent to the project site in Tulare, California would be well below the Federal Transit Administration vibration impact assessment threshold for residential buildings. As the vibration source (train) and the soil type and conditions at the current project site are the similar to those at the vibration measurement site, vibration levels within the project site would also be well below the FTA vibration threshold for residential buildings.

CONCLUSIONS AND RECOMMENDATIONS

The proposed 171-lot Santa Fe West Subdivision residential development will comply with applicable City of Tulare exterior and interior noise level requirements provided that the following noise mitigation measures are included in the proposed project design.

1. A sound wall or earthen berm and sound wall combination with a minimum height of six (6) feet above project lot grade is constructed along the extent of the project site N. E Street frontage. Suitable construction materials include concrete blocks, masonry, or stucco on both sides of a wood or steel stud wall.

2. A sound wall or earthen berm and sound wall combination with a minimum height of twelve and a half (12.5) feet above project lot grade is constructed along the extent of the project site Union Pacific Railroad frontage. The sound wall should extend from Lots 17/33/34 through (and including) Lot 53. Suitable construction materials include concrete blocks, masonry, or stucco on both sides of a wood or steel stud wall. The 12.5-foot sound wall would reduce exterior noise levels within individual backyards to below 60 dB L_{dn}. Alternatively, a sound wall constructed to a minimum height of seven (7) feet above project lot grade would reduce exterior noise levels to below 65 dB L_{dn}, which is considered "conditionally acceptable" by the City of Tulare.

3. If two-story construction is proposed for the lots closest to the Union Pacific Railroad, interior noise levels within second-floor spaces could exceed the City of Tulare interior noise level standard of 45 dB L_{dn}, as the required sound wall would provide attenuation at first-floor receiver locations only. A detailed analysis of interior noise levels was not provided as specific construction details were not known at the time this analysis was prepared. Therefore, to ensure compliance with the interior noise level standard of 45 dB L_{dn} at these lots closest to the railroad, mitigation measures, design features, or further analysis will be required. To ensure interior noise compliance, the following options are provided:

    - All north-, south-, and east-facing facades within any second stories of homes at Lot 17, and Lot 33 through Lot 53 must be constructed using windows with a minimum STC 35 rating.

    OR

    - Construction of homes at Lot 17, and Lot 33 through Lot 53 should be limited to single-story construction only.

    OR

    - A detailed analysis of interior noise levels must be prepared once specific construction details are known. If the analysis determines that interior noise levels would exceed 45 dB L_{dn} with the proposed construction, adequate mitigation measures (typically higher STC rated windows) must be incorporated into final project design, at the lots adjacent to the UP Railroad line.

It should be noted, the above-described interior noise compliance options would be applicable whether the project provides a 7-foot wall to attain the "conditionally acceptable" exterior noise level standard of 65 dB L_{dn} or a 12.5-foot wall is provided to attain the "normally acceptable" exterior noise level standard of 60 dB L_{dn}.

4. Air conditioning or mechanical ventilation should be installed in the homes so that it will be possible for windows and doors to remain closed for sound insulation purposes.

5. If two-story construction is proposed along N. E Street and/or the UPRR frontage, if constructed, noise levels at second-floor balconies facing each noise source would exceed 60 dB L_{dn}.

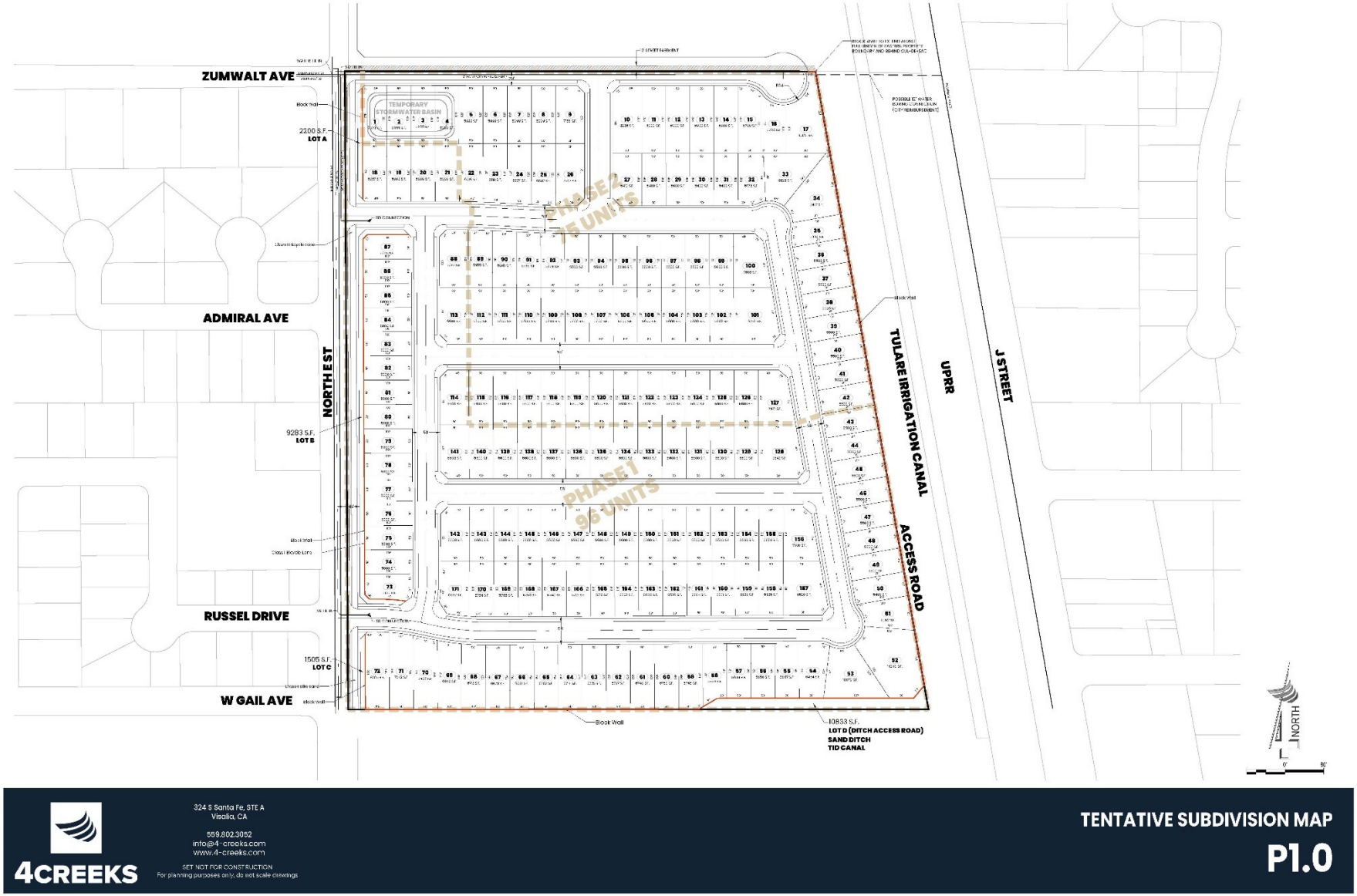
The conclusions and recommendations of this acoustical analysis are based upon the best information known to WJV Acoustics Inc. (WJVA) at the time the analysis was prepared concerning the proposed site plan, project site elevation, railway operations, traffic volumes and roadway configurations. Any significant changes in these factors will require a reevaluation of the findings of this report. Additionally, any significant future changes in motor vehicle technology, railway technology, noise regulations or other factors beyond WJVA's control may result in long-term noise results different from those described by this analysis.

Respectfully submitted,

Walter J. Van Groningen
President

WJV:wjv

FIGURE 1: PROJECT SITE PLAN



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SET NOT FOR CONSTRUCTION
For planning purposes only; do not scale drawings

TENTATIVE SUBDIVISION MAP

P1.0

FIGURE 2: PROJECT VICINITY AND NOISE MONITORING SITE LOCATIONS

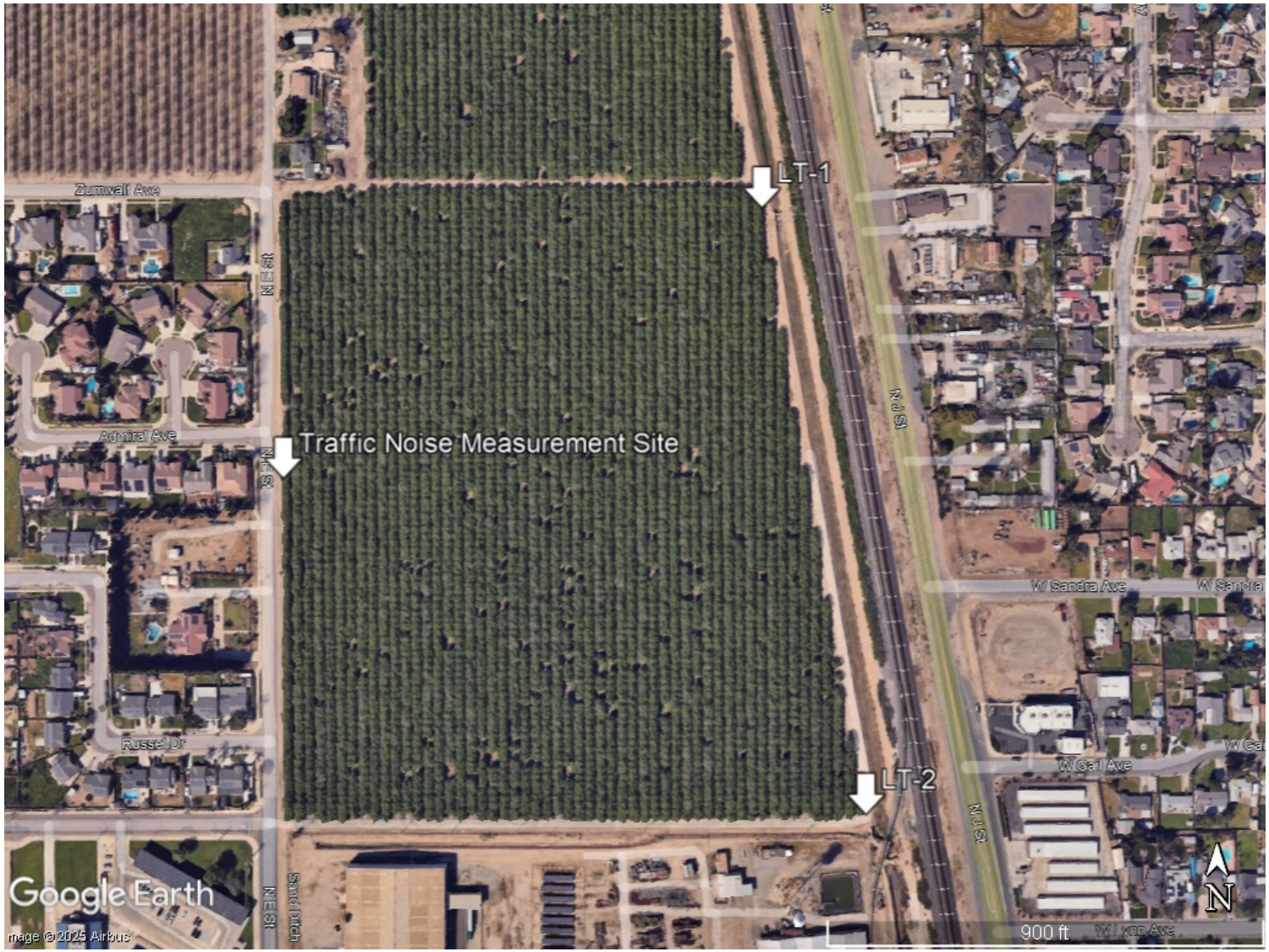


FIGURE 3: AMBIENT NOISE MEASUREMENT SITE LT-1

FIGURE 4: NOISE LEVELS AT AMBIENT NOISE MEASUREMENT SITE LT-1

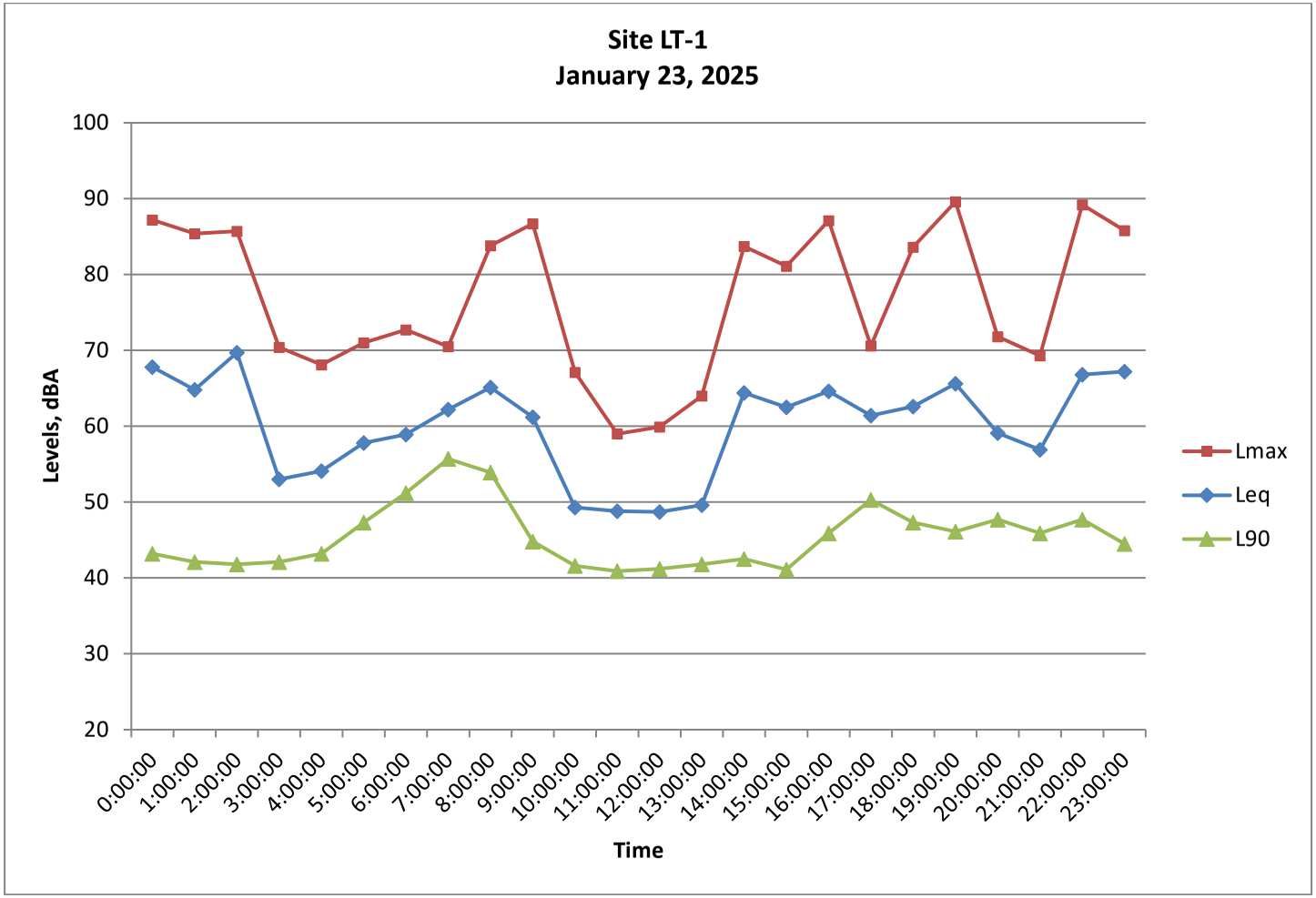


FIGURE 5: NOISE LEVELS AT AMBIENT NOISE MEASUREMENT SITE LT-1

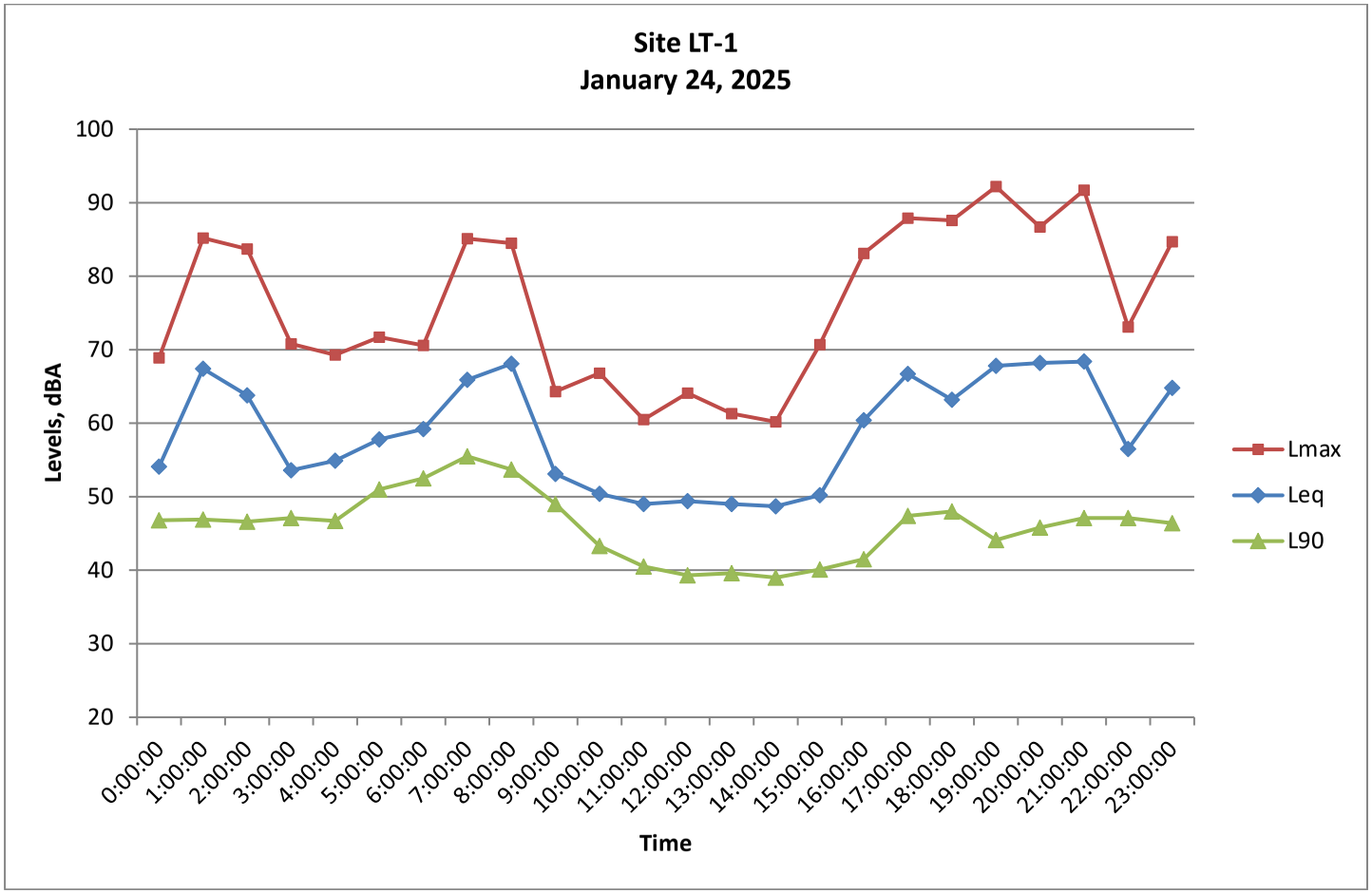


FIGURE 6: AMBIENT NOISE MEASUREMENT SITE LT-2

FIGURE 7: NOISE LEVELS AT AMBIENT NOISE MEASUREMENT SITE LT-2

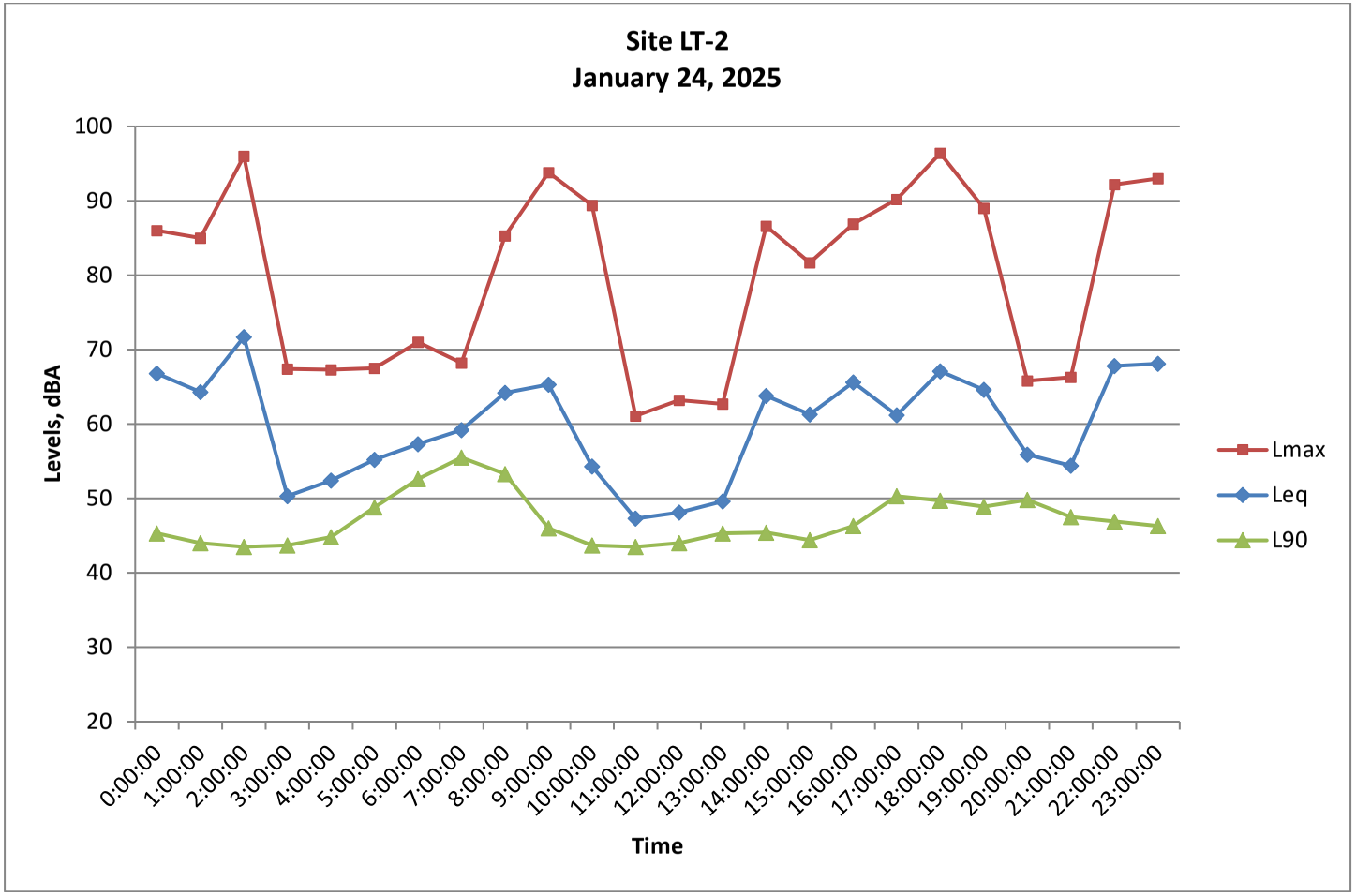
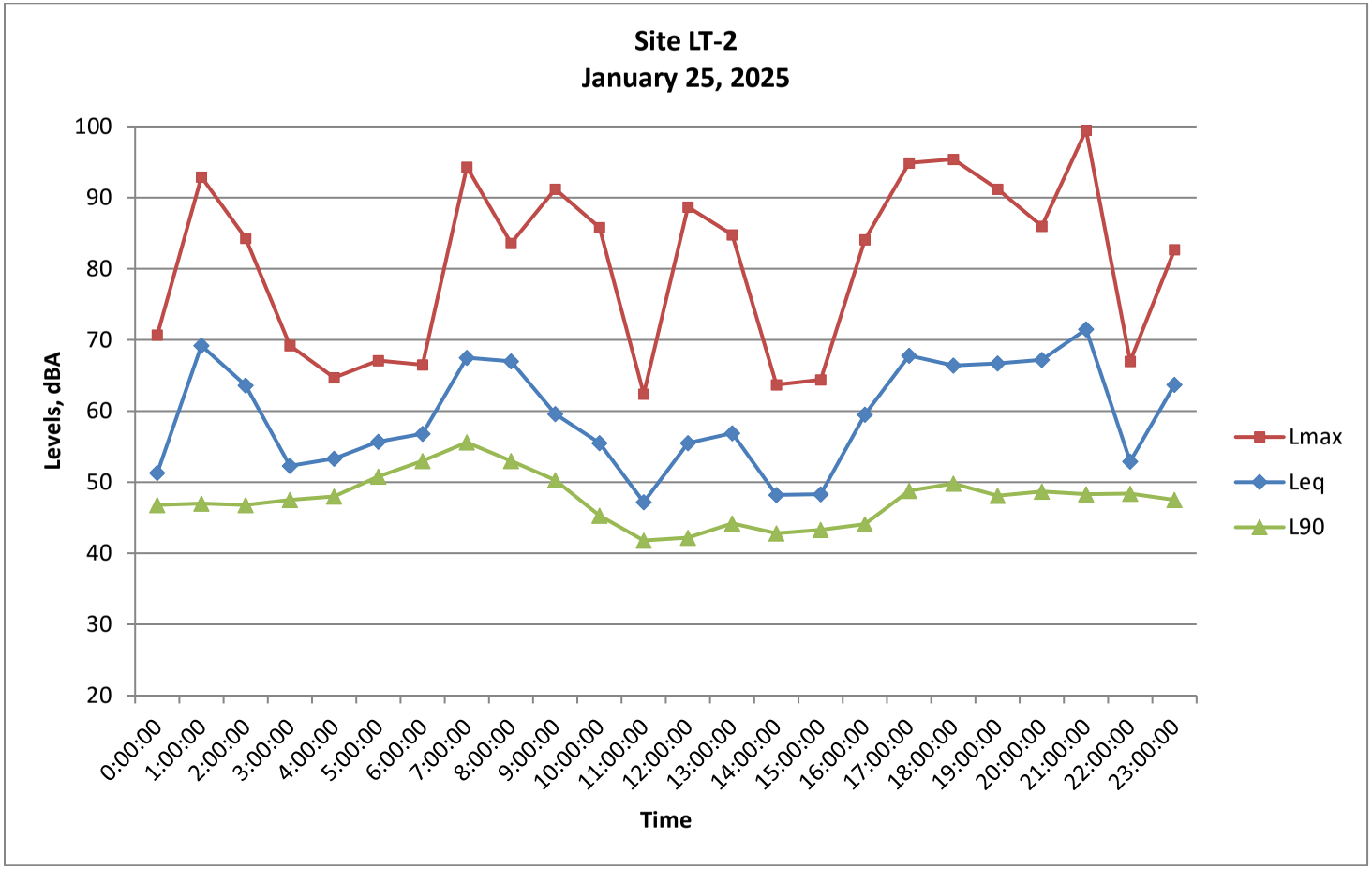


FIGURE 8: NOISE LEVELS AT AMBIENT NOISE MEASUREMENT SITE LT-2



APPENDIX A

ACOUSTICAL TERMINOLOGY

AMBIENT NOISE LEVEL: The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

CNEL: Community Noise Equivalent Level. The average equivalent sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

DECIBEL, dB: A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

DNL/L_{dn}: Day/Night Average Sound Level. The average equivalent sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.

L_{eq}: Equivalent Sound Level. The sound level containing the same total energy as a time varying signal over a given sample period. L_{eq} is typically computed over 1, 8 and 24-hour sample periods.

NOTE: The CNEL and DNL represent daily levels of noise exposure averaged on an annual basis, while L_{eq} represents the average noise exposure for a shorter time period, typically one hour.

L_{max}: The maximum noise level recorded during a noise event.

L_n: The sound level exceeded "n" percent of the time during a sample interval (L_{90}, L_{50}, L_{10}, etc.). For example, L_{10} equals the level exceeded 10 percent of the time.

A-2

ACOUSTICAL TERMINOLOGY

NOISE EXPOSURE CONTOURS: Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and DNL contours are frequently utilized to describe community exposure to noise.

NOISE LEVEL REDUCTION (NLR): The noise reduction between indoor and outdoor environments or between two rooms that is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. A measurement of "noise level reduction" combines the effect of the transmission loss performance of the structure plus the effect of acoustic absorption present in the receiving room.

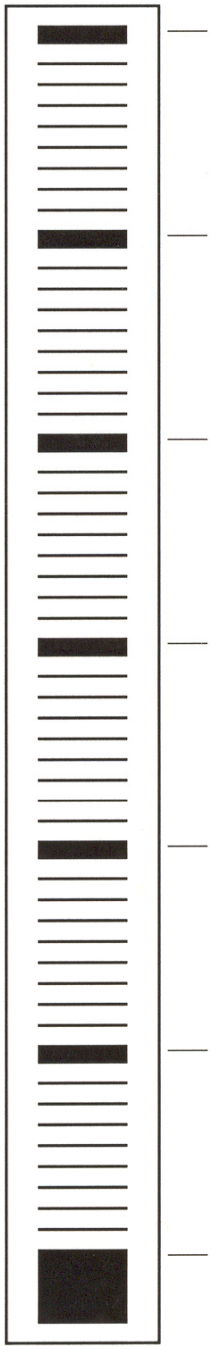
SEL or SENEL: Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.

SOUND LEVEL: The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

SOUND TRANSMISSION CLASS (STC): The single-number rating of sound transmission loss for a construction element (window, door, etc.) over a frequency range where speech intelligibility largely occurs.

APPENDIX B
EXAMPLES OF SOUND LEVELS

NOISE SOURCE	SOUND LEVEL	SUBJECTIVE DESCRIPTION
AMPLIFIED ROCK 'N ROLL	120 dB	
JET TAKEOFF @ 200 FT		DEAFENING
	100 dB	
BUSY URBAN STREET		VERY LOUD
	80 dB	
FREEWAY TRAFFIC @ 50 FT		LOUD
CONVERSATION @ 6 FT	60 dB	
TYPICAL OFFICE INTERIOR		MODERATE
SOFT RADIO MUSIC	40 dB	
RESIDENTIAL INTERIOR		FAINT
WHISPER @ 6 FT	20 dB	
HUMAN BREATHING		VERY FAINT
	0 dB	



Appendix H

Traffic Impact Analysis

Santa Fe West Subdivision

Tulare, CA

March 17, 2025

Traffic Impact Analysis Report

Prepared For:

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Acronyms and Abbreviations

AM	One-hour period of highest traffic during the AM hours of the day (7-9 AM)
AWSC	All-way stop-control
Caltrans	California Department of Transportation
CA MUTCD	California Manual on Uniform Traffic Control Devices
CHP	California Highway Patrol
CIP	Capital Improvement Program
EB	Eastbound
GIS	Geographic Information System
HCM	Highway Capacity Manual, 7th Edition
ITE	Institute of Transportation Engineers
LOS	Level of Service
Lt	Left turn
mph	Miles per hour
NB	Northbound
OWSC	One-way stop control
PM	One-hour period of highest traffic during the PM hours of the day (4-6 PM)
Rt	Right turn
SB	Southbound
SF	Square feet
SR	State Route
SWITRS	Statewide Integrated Traffic Records System
TCAG	Tulare County Association of Governments
TIA	Traffic Impact Analysis
TIF	Transportation Impact Fee
TIMS	Transportation Injury Mapping System
TWSC	Two-way stop control
UPRR	Union Pacific Railroad
VPH	Vehicles per hour
WB	Westbound

Executive Summary

This Traffic Impact Analysis (TIA) provides the analysis results for the proposed Santa Fe West Subdivision ("Project") located on approximately 33.0 acres in northwest Tulare, California. The Project includes 171 single-family residential homes located at the northeast corner of W. Gail Avenue and N. E Street with access via one local road, N. E Street. The subdivision is accessible from N. E Street, which runs north and south, and by Admiral Avenue and Russell Drive, which run east and west. A Site Plan and Vicinity Map of the project are shown on Figures 1-1 and 1-2, respectively.

The purpose of the TIA is to evaluate the impact on the transportation infrastructure due to the addition of the traffic from the proposed Project. To evaluate the impacts on the transportation infrastructure due to the addition of traffic from the Project, five study intersections were evaluated during the weekday morning (AM) peak hour and evening (PM) peak hour under five study scenarios. The study intersections were evaluated for Existing, Existing Plus Project, Near Term (Project Opening Day) with Project, Cumulative (Year 2045) without Project, and Cumulative (Year 2045) Plus Project Conditions.

Level of Service (LOS) Standards

The State of California does not recognize traffic congestion and delay as an environmental impact per the California Environmental Quality Act (CEQA). However, City of Tulare, TCAG, Caltrans, and local agencies still use LOS standards to assess street and highway performance. The City of Tulare General Plan 2035 defines that the minimum acceptable LOS standard shall be LOS D per Policy TR-P2. LOS D will be taken as the threshold for acceptable traffic operation for this project.

It is proposed that a traffic issue may be identified if the addition of the traffic generated by the Project results in one of the following:

- Additional traffic triggers an intersection that is operating currently at an acceptable LOS (A, B, C, or D) to operate at unacceptable LOS (E or F).
- Additional traffic increases the average delay for a study intersection that is already operating at unacceptable LOS (E or F) by 5.0 seconds or more.

Existing Conditions

All five study intersections operate at acceptable service levels (LOS D or better) during the AM and PM peak hours.

Existing Plus Project Conditions

All five study intersections operate at acceptable service levels (LOS D or better) during the AM and PM peak hour.

Near Term (Project Opening Day) With Project Conditions

Per email correspondence with the City on February 6, 2025, no pending or approved projects were indicated for inclusion in the study of this TIA. Therefore, the Near Term (Project Opening Day) With Project scenario was omitted from this study.

Cumulative (Year 2046) Without Project Conditions

All five study intersections operate at acceptable service levels (LOS D or better) during the AM and PM peak hour. However, the Intersection 1 (N. E Street/W. Prosperity Avenue) southbound left-turn pocket capacity is noted to possibly exceed capacity during the AM peak hour for the Cumulative (Year 2046) Without Project scenario. The 95th-percentile volume was noted to exceed capacity and that the queue may be longer than shown.

Cumulative (Year 2046) Plus Project Conditions

All five study intersections operate at acceptable service levels (LOS D or better) during the AM and PM peak hour. However, the Intersection 1 (N. E Street/W. Prosperity Avenue) southbound left-turn pocket capacity is exceeded during the AM peak hour during the Cumulative (Year 2046) Plus Project scenario.

1. Project Information

This report summarizes the results of the Traffic Impact Analysis (TIA) for the proposed E Street Subdivision (Project). Analysis methodologies and assumptions are discussed further in Appendix A.

1.1 Project Description and Location

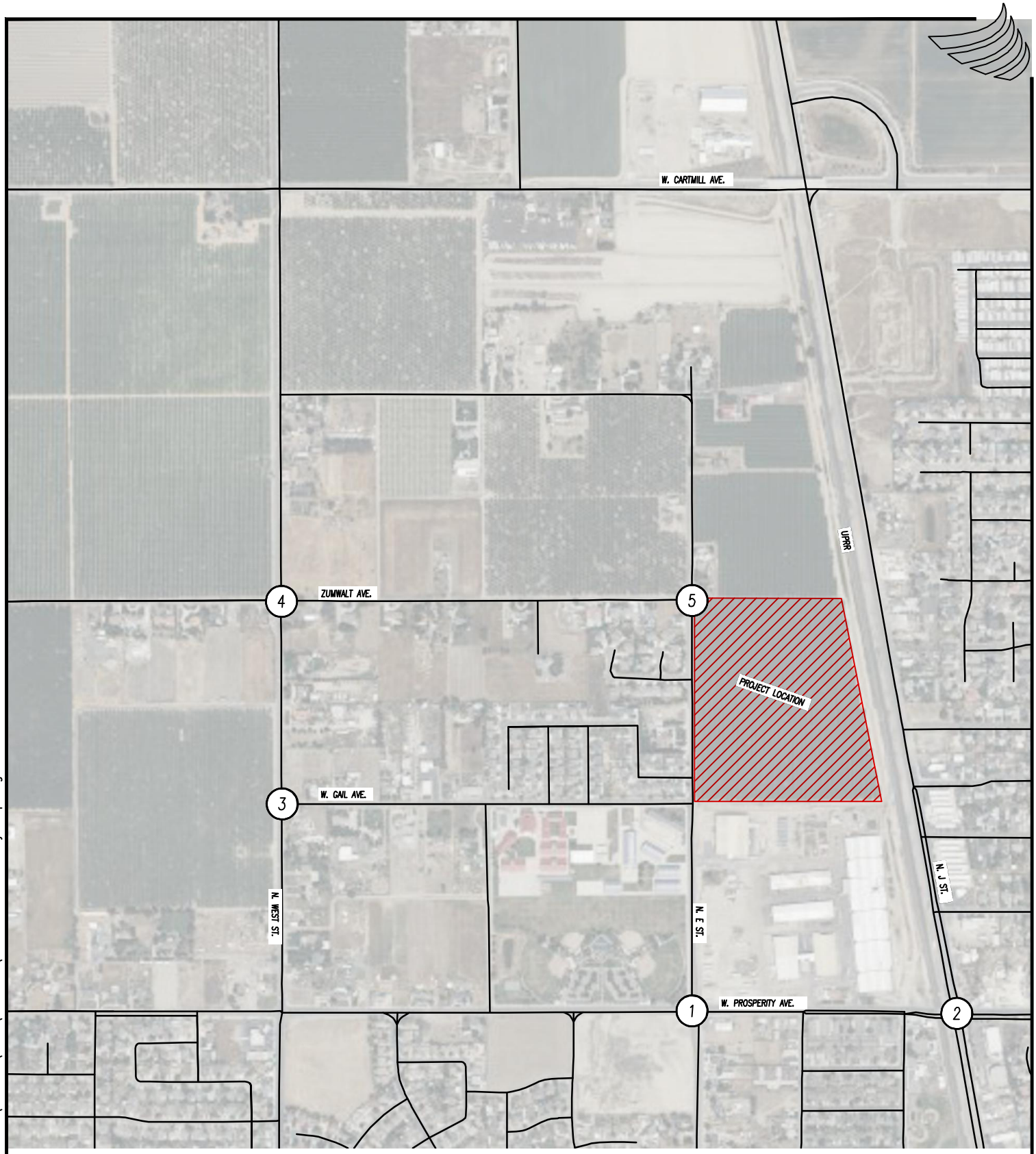
The Project is a low-density residential subdivision (APNs 164-100-008 and 164-100-009) located on approximately 32.97 acres in northwest Tulare, California. The Project includes 171 single-family residential homes located at the northeast corner of W. Gail Avenue and N. E Street with access via one local road, N. E Street. The subdivision is accessible from N. E Street, which runs north and south, and by two local roads that run east and west. A Vicinity Map and Site Plan of the project are shown on Figures 1-1 and 1-2, respectively.

1.2 Study Intersections

The following five study intersections were identified by the City of Tulare for analysis:

1. N. E Street / W. Prosperity Avenue
    - Signalized
2. N. J Street / W. Prosperity Avenue
    - Signalized
3. N. West Street / W. Gail Avenue
    - WB Stop-Controlled
4. N. West Street / Zumwalt Avenue
    - TWSC (Zumwalt Avenue)
5. N. E Street / Zumwalt Avenue
    - EB Stop-Controlled

No significant improvements to the roadway system are assumed in this analysis. If a roadway or intersection is identified as operating below the City LOS standard, improvements will be recommended based on the 2035 Tulare General Plan and the findings of this TIA.



NORTH

FIGURE 1-1: Vicinity Map

SANTA FE WEST SUBDIVISION TIA
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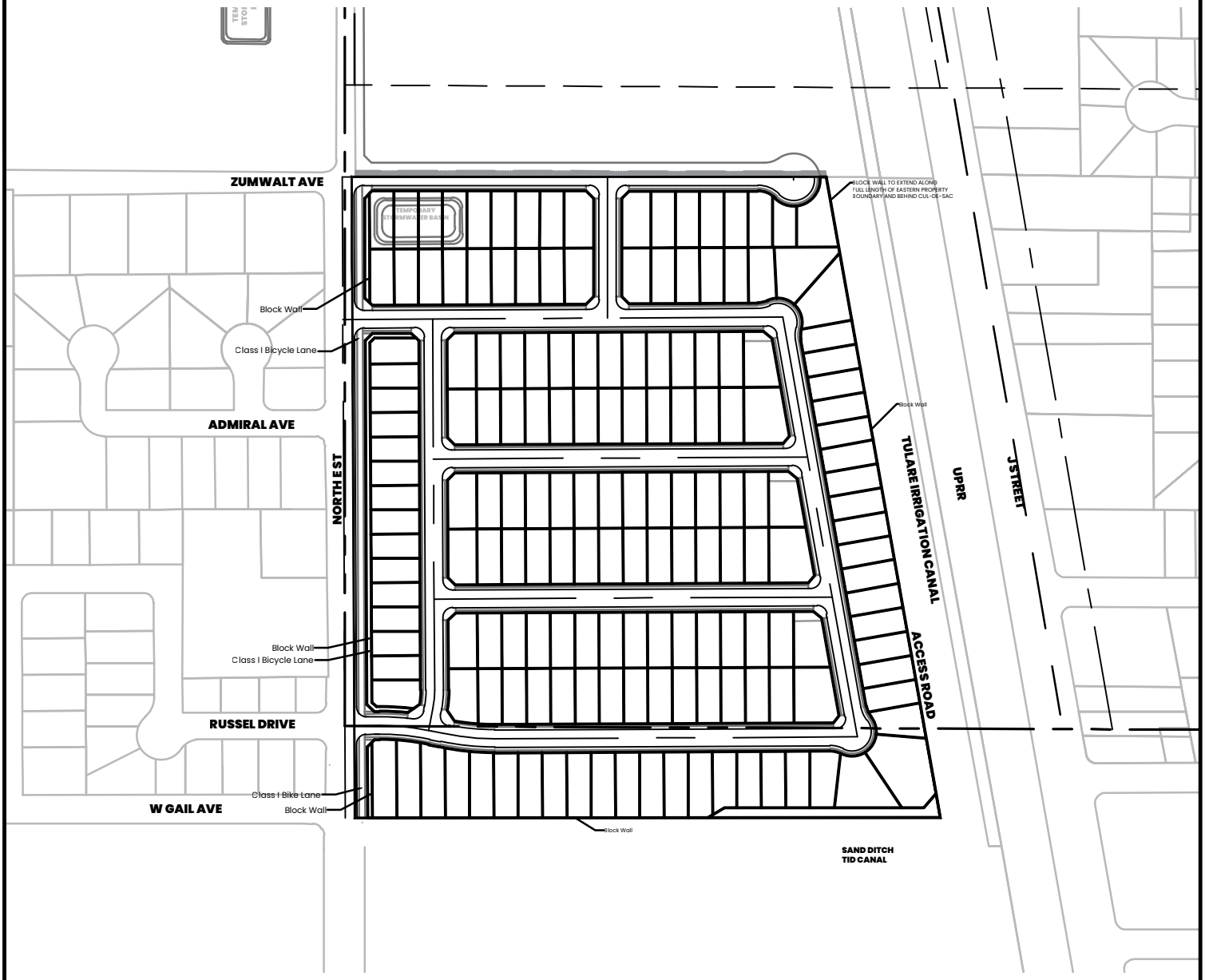

NORTH

FIGURE 1-2: Site Map

SANTA FE WEST SUBDIVISION TIA
TULARE, CA

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1.3 Analysis Time Periods and Scenarios

Intersection operational analyses to determine the LOS were performed for the following time periods:

- Weekday AM peak hour between 7:00 AM and 9:00 AM
- Weekday PM peak hour between 4:00 PM and 6:00 PM

The following analysis scenarios were determined based on City guidelines:

- Existing Conditions
- Existing plus Project Conditions
- Cumulative (Year 2045) without Project Conditions
- Cumulative (Year 2045) plus Project Conditions

Per discussions with the City, no pending or approved projects were indicated for inclusion in the study of this TIA as part of any Near Term With Project analysis scenarios. Therefore, the Near Term (Project Opening Day) With Project scenario was omitted from this study.

Traffic signal warrant analyses for the following intersections were completed using Warrant 3, Peak Hour, per the guidelines of the California Manual on Uniform Traffic Control Devices (CA MUTCD). No other signal warrant analyses were completed.

- N. West Street / W. Gail Avenue
- N. West Street / Zumwalt Avenue
- N. E Street / Zumwalt Avenue

1.4 Project Area Collision History Analysis

The University of California, Berkeley developed the Traffic Injury Mapping System (TIMS) to document traffic collisions throughout the state of California. TIMS uses data provided by the Statewide Integrated Traffic Records System (SWITRS), which is a tool used by California Highway Patrol (CHP) and other allied agencies throughout the state to include statistical data on traffic incidents.

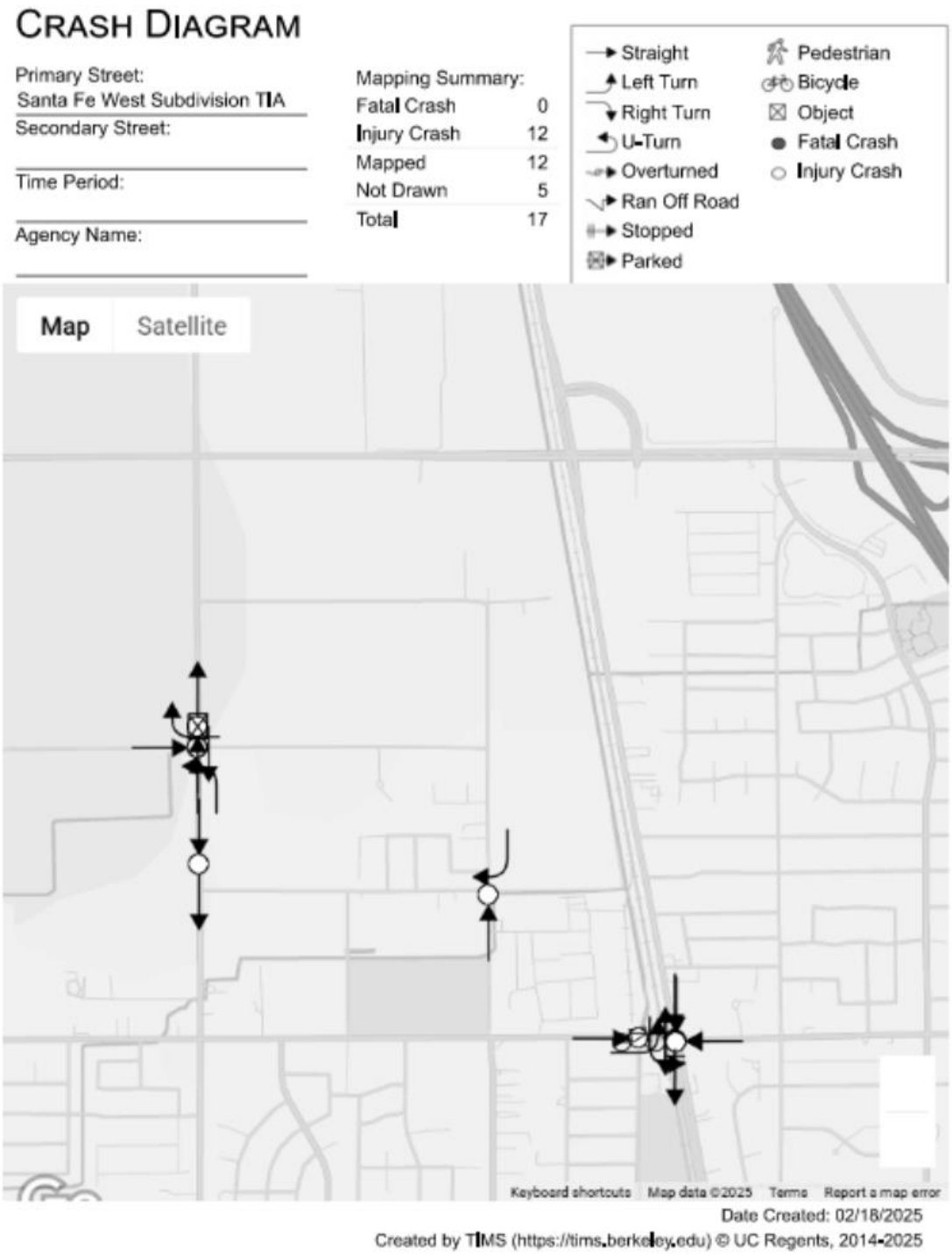
Information from the TIMS SWITRS GIS map shows that 17 collisions occurred throughout the study area during the selected period between January 1, 2019, and the latest available data reported, September 30, 2024. Of the 17 collisions, none were fatal. Table 1-1 shows the collisions in the study area with their associated collision type and injury statistics. A graphical representation of the traffic collisions in the study area are shown in Figure 1-3.

During that same timeframe, the City of Tulare had a reported 457 crashes (52 fatal and 592 injured). Pedestrian-involved crashes comprised 13.6% of all City-wide collisions, bicycle-involved was 5.5%, and motorcycle-involved was 8.3%. During the same timeframe, Tulare County had approximately 9,100 injury collisions and 371 fatal collisions. Collisions within the study area represent 0.2% of incidents that occurred in the County during that timeframe.

Table 1-1: Project Area Crash History (1/1/19 to 9/30/24)

Location	Date of Crash	Type of Crash	Crash Severity
West St. and Zumwalt Ave.	11/2/23	Rear End	2 injured
	4/5/21	Hit Object	2 injured
	3/4/24	Broadside	2 injured
	6/5/22	Rear End	2 injured
	3/12/22	Broadside	1 injured
West St., south of Zumwalt Ave.	7/2/24	Sideswipe	1 injured
	7/2/24	Rear End	1 injured
West St., south of Gail Ave.	9/29/24	Rear End	3 injured
Gail Ave. and E St.	6/6/23	Head On	1 injured (severe)
Prosperity Ave. and Sacramento St.	6/23/21	Rear End	1 injured
Prosperity Ave. and H St.	9/1/22	Not Stated	1 injured
	7/10/24	Broadside	1 injured
Prosperity Ave. and J St.	5/10/21	Rear End	1 injured
	4/8/23	Vehicle/Bicycle	1 injured
	1/21/23	Broadside	2 injured
	3/8/20	Broadside	9 injured (severe)
	6/26/19	Broadside	1 injured (severe)

Figure 1-3: Project Area Crash Diagram



2. Methodology

Guidelines set by the City of Tulare were followed in the preparation of this TIA. LOS methodologies from the latest edition of the Highway Capacity Manual (HCM) were used to analyze street and intersection capacities. The City of Tulare LOS standards were applied to quantitatively assess the performance of each study area intersection.

2.1 Intersection Analysis

Intersection LOS analysis was performed using the Synchro Studio version 12 (Synchro 12) software program. Synchro 12 supports HCM 7th Edition methodologies and was deemed an acceptable program by City of Tulare staff for assessment of traffic impacts for the Project. LOS can be determined for both signalized and stop-controlled intersections. There are both signalized and stop-controlled intersections under analysis as part of this TIA.

Tables 2-1 and 2-2 indicate the ranges in average delay at unsignalized and signalized intersections, respectively, for each Level of Service, from LOS A to LOS F.

Each of the study intersections was analyzed using Synchro 12 software and the HCM 7th edition methodology. The LOS assessment under all scenarios is based on current traffic controls unless otherwise noted. The LOS methodology for stop-controlled and signalized intersections are described in detail in Appendix A.

Table 2-1: Level of Service Unsignalized Intersections

Level of Service	Average Vehicle Delay (seconds)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

Reference: *Highway Capacity Manual, 7th Edition,* Transportation Research Board, 2024

Table 2-2: Level of Service Signalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Volume-to-capacity ratio is no greater than 1.0. Progression is exceptionally favorable, or the cycle length is very short.	<10
B	Volume-to-capacity ratio is no greater than 1.0. Progression is highly favorable, or the cycle length is very short.	>10-20
C	Volume-to-capacity ratio is no greater than 1.0. Progression is favorable, or the cycle length is moderate.	>20-35
D	Volume-to-capacity ratio is high but no greater than 1.0. Progression is ineffective or cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35-55
E	Volume-to-capacity ratio is high but no greater than 1.0. Progression is unfavorable and cycle length is long. Individual cycle failures are frequent.	>55-80
F	Volume-to-capacity ratio is greater than 1.0. Progression is very poor, and cycle length is long. Most cycles fail to clear the queue.	>80

Reference: *Highway Capacity Manual, 7th Edition,* Transportation Research Board, 2024

Various roadway parameters, such as geometry, traffic volumes, and properties (peak hour factors, turn pocket length, etc.) were input in Synchro 12 to accurately model the travel delay and LOS for each study scenario. The intersection LOS and delays reported in this TIA represent the HCM 7th Edition output and methodologies. Assumptions are listed below:

Lane Geometry

- Turn pocket lengths were measured from aerial imagery and rounded to the nearest 5 feet.
- Intersection lane geometry and intersection control was investigated using satellite imagery.

Traffic Conditions

- Peak hour factors (PHF) for each intersection were obtained from the existing traffic counts in Appendix B. The average PHF for the intersection was applied to each approach for Existing and Existing Plus Project Conditions. For Cumulative (Year 2046) Without Project and Cumulative (Year 2046) Plus Project Conditions, a PHF of 0.92 was applied, unless the existing PHF was greater than 0.92. PHF of 0.92 is the default value assigned in the HCM.
- Heavy vehicle percentages were based on the percentages gathered for each intersection for the AM and PM peak hour for Existing and Existing Plus Project Conditions. For Cumulative (Year 2046) Without Project and Cumulative (Year 2046) Plus Project Conditions, a heavy vehicle percentage of 2.0 was applied, unless the heavy vehicle percentage was measured to be greater than 2.0. Heavy vehicle percentage of 2.0 is the default value assigned in the HCM.
- Roadway link speeds were observed via satellite imagery and input to the Synchro 12 network.

2.2 Queuing Analysis

Queuing analysis was performed for each study intersection utilizing Synchro 12. The software aligns with the methodologies of the HCM 7th edition. Synchro 12 provides queuing results as 95th-percentile queue lengths in feet for signalized intersections.

2.3 VMT Analysis Methodology

Per Senate Bill 743 (SB 743), which went into effect in California on July 1, 2020, the performance measure for CEQA transportation studies was changed from LOS to vehicle miles traveled (VMT). An assessment of potential VMT impacts associated with the Project is provided in Section 7.0 VMT Analysis of this report.

3. Existing Conditions

This section describes the existing conditions in the immediate surrounding area of the Project, including roadway facilities, bicycle and pedestrian facilities, and available transit service. Existing traffic volumes and LOS calculations are provided for the study intersections.

3.1 Existing Roadway System

Access to the Project is provided via N. E Street, W. Gail Avenue, N. West Street, Zumwalt Avenue, and W. Prosperity Avenue.

N. E Street is a two-lane north-south collector from W. Prosperity Avenue to Zumwalt Avenue. The speed limit is 40 mph.

W. Gail Avenue is a two-lane east-west local road between N. West Street and N. E Street. The speed limit is 35 mph, except for the school zone segment, which is 25 mph. Los Tules Middle School and Heritage Elementary School are located on W. Gail Avenue, between Northridge Street and N. E Street.

N. West Street is a two-lane arterial roadway that runs north-south through the city. The speed limit is 40 mph.

Zumwalt Avenue is a two-lane east-west collector to the north of W. Prosperity Avenue. The speed limit is 35 mph.

W. Prosperity Avenue is a two-lane east-west arterial through the city. The speed limit is 40 mph. Prosperity Sports Park is located on W. Prosperity Avenue just east of N. E Street. There is an at-grade Union Pacific Railroad (UPRR) crossing just west of the signalized intersection with N. J Street. The at-grade crossing currently has cantilever flashers and automatic gates for both the EB and WB directions.

3.2 Existing Pedestrian Facilities

N. E Street has connected sidewalk and curb ramps on the east side of the roadway only, beginning north of W. Prosperity Avenue.

Gail Avenue has sidewalks on both sides of the road in the school zone (between Northridge Street and N. E Street). There are no sidewalks on W. Gail Avenue between Northridge Street and N. West Street.

N. West Street does not have pedestrian facilities in the project area.

Zumwalt Avenue does not have pedestrian facilities in the project area.

W. Prosperity Avenue has no pedestrian facilities in this area except for a segment of sidewalk on the north side of the road, between Northridge Street and N. E Street.

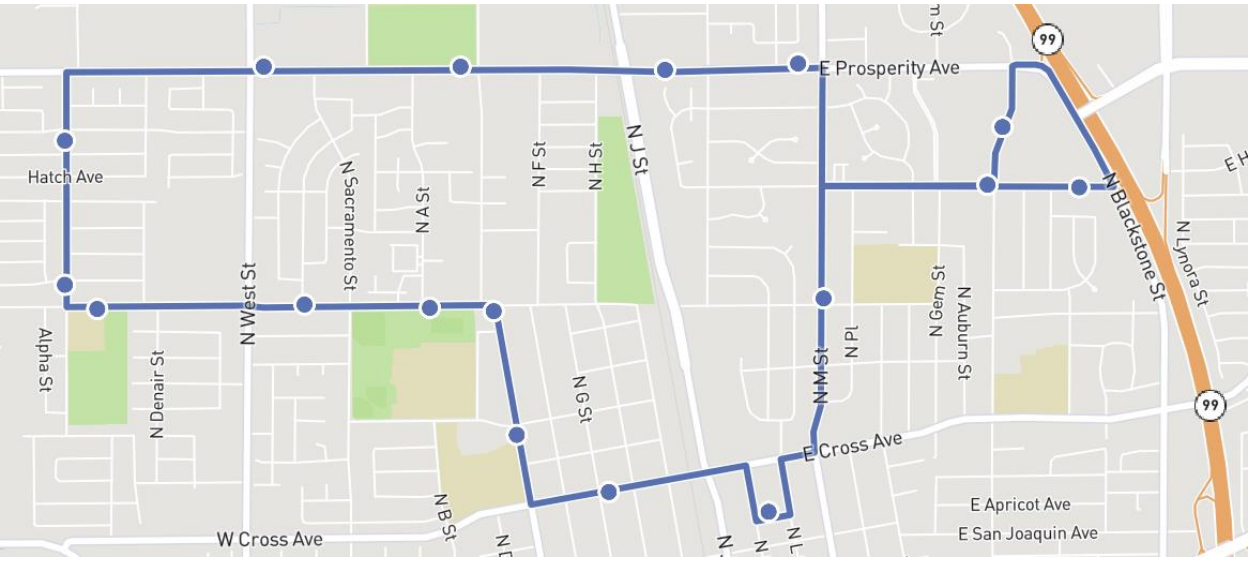
3.3 Existing Bicycle Facilities

There are no on-street bicycle lanes or Class I multi-use paths in the project vicinity.

3.4 Existing Transit Facilities

The Tulare County Regional Transit Agency (TCRTA) operates the "T1" North Tulare route in the Project area, shown in Figure 3-1 below. There are bus stops along W. Prosperity Avenue at N. West Street, Prosperity Sports Park, N. J Street, and N. M Street. The bus route operates between 7:00 AM -7:00 PM Monday to Saturday and 8:00 AM – 5:00 PM on Sunday.

Figure 3-1: TCRTA T1 Route



3.5 Existing Traffic Volumes

Turning movement volumes were collected at the five study intersections during the weekday for both the AM and PM peak periods. Volumes were collected on Wednesday, February 5th, 2025, between 7:00 AM and 9:00 AM and between 4:00 PM and 6:00 PM. These existing AM and PM peak hour traffic volumes are shown in Figure 3-2. Appendix B includes the data sheets for the collected vehicle, bicycle, and pedestrian counts.

3.6 Intersection Level of Service Analysis – Existing Conditions

The study intersection lane configurations and intersection controls are also shown on Figure 3-2. Using the existing traffic volumes and the roadway geometry from Figure 3-2, the existing conditions LOS were calculated for each peak period and are shown in Table 3-1. LOS calculation sheets for Existing Conditions are included in Appendix D.

Table 3-1: Existing Level of Service Summary

#	Intersection	Peak Hour[1]	Existing Conditions	
			Delay[2]	LOS[3]
1	N. E St./W. Prosperity Ave.	AM	12.9	B
		PM	13.8	B
2	J St./W. Prosperity Ave.	AM	11.6	B
		PM	11.8	B
3	N. West St./W. Gail Ave.	AM	16.3	C
		PM	12.2	B
4	N. West St./Zumwalt Ave.	AM	17.0	C
		PM	17.8	C
5	N. E St./Zumwalt Ave.	AM	8.6	A
		PM	8.4	A

Notes:

1. AM – morning peak hour, PM – evening peak hour
2. Delay – Entire intersection weighted average control delay expressed in seconds per vehicle for signalized and all way stop-controlled intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
3. LOS – Level of Service. **Bold** indicates unacceptable Level of Service. **Red** indicates a significant impact.

As shown in Table 3-1, all intersections are currently operating within the limits of the City's adopted LOS standard (LOS D or better).

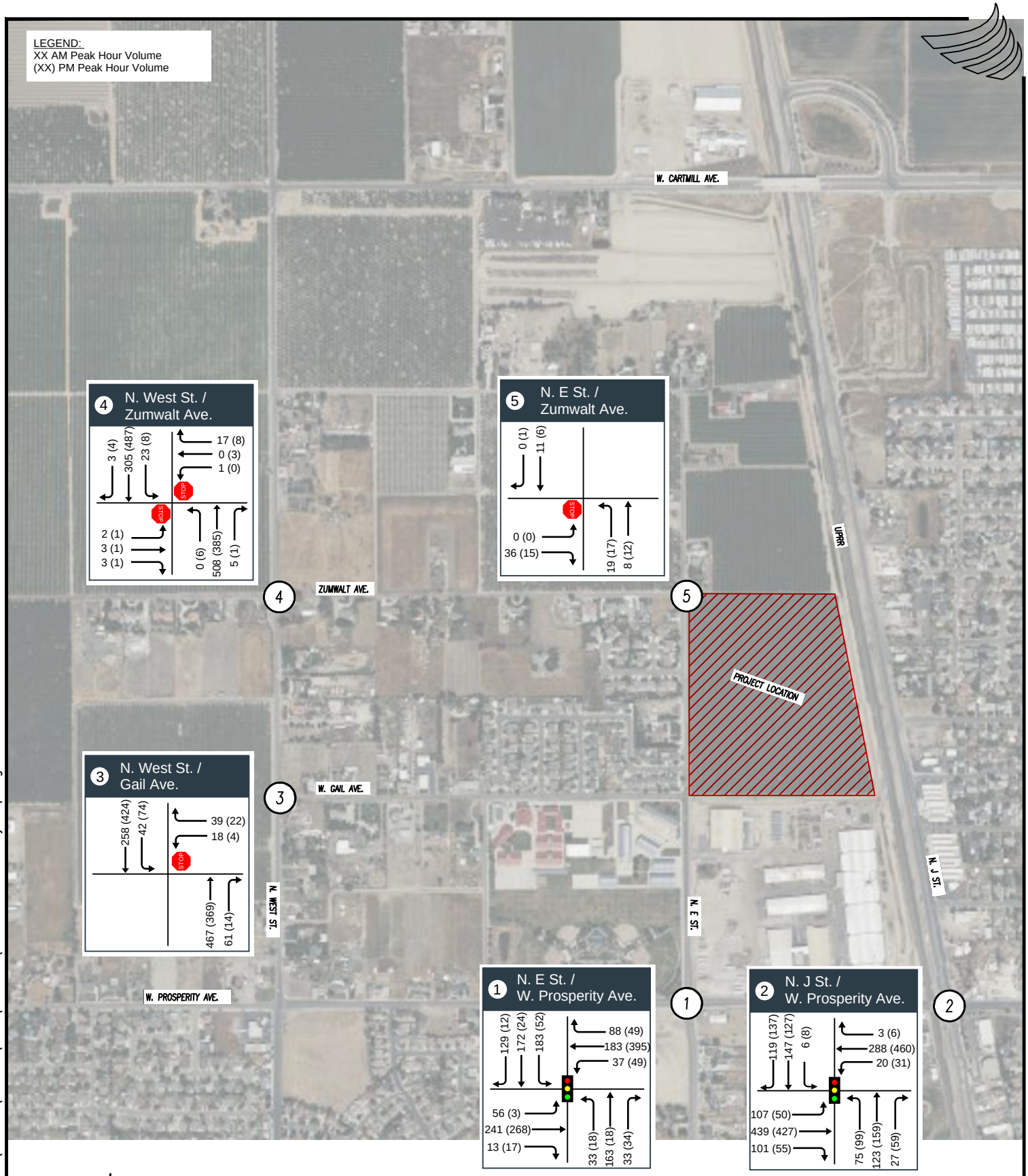


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FIGURE 3-2: Existing Conditions Peak Hour Traffic Volumes

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3.7 Signal Warrant Analysis – Existing Conditions

The results of the Warrant 3, Peak Hour Warrant under Existing Conditions are summarized in Table 3-2 below. Signalization of an intersection may be appropriate if the intersection meets one or more of the nine signal warrants detailed in the CA MUTCD. Warrant 3, Peak Hour, was used here to indicate whether signalization may be appropriate, but even if the peak hour volume warrant is met, a more detailed signal warrant study is recommended before a traffic signal is installed.

Intersections 3, 4, and 5 do not meet Warrant 3 for either the AM or PM peak hour.

Table 3-2: Warrant 3, Peak Hour Results - Existing Conditions

#	Intersection	Control	Meets AM Peak Hour?	Meets PM Peak Hour?
3	N. West St./W. Gail Ave.	WB Stop-Controlled	No	No
4	N. West St./Zumwalt Ave.	TWSC	No	No
5	N. E St./Zumwalt Ave.	EB Stop-Controlled	No	No

3.8 Queuing Analysis – Existing Conditions

The queuing analyses under Existing Conditions are summarized in Table 3-3 below. The existing turn pocket lengths are adequate.

Table 3-3: 95th Percentile Queues - Existing Conditions

#	Intersection	Lane Group	Storage Length (ft)	Existing AM Queue	Existing PM Queue
1	N. E St./W. Prosperity Ave.	NB Lt	150	17	12
		SB Lt	150	72	24
		EB Lt	150	30	4
		WB Lt	140	23	27
		WB Rt	140	13	12
2	N. J St./W. Prosperity Ave.	NB Lt	200	33	45
		SB Lt	190	6	7

4. Existing Plus Project Conditions

This section describes the impacts of the proposed Project on the existing transportation system in the immediate vicinity of the Project site. The Existing Plus Project Conditions evaluates existing traffic volumes and roadway conditions plus new traffic generated by the proposed Project.

Traffic generated from the proposed Project was determined and added to the roadway system based on the following process:

- Trip Generation – the number of Project-only trips are estimated.
- Trip Distribution – the direction the trips traveling to and from the Project site is estimated.
- Trip Assignment – the Project-only trips are assigned to intersection movements and street segments.

4.1 Project Trip Generation

Data provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*, was used to estimate the number of trips anticipated by the proposed Project. Trip generation estimates for the Project are shown in Table 4-1 and are based on the number of units of residential housing planned in the proposed project.

The proposed Project is expected to generate 1,653 daily trips, including 121 AM peak hour trips (30 inbound, 91 outbound) and 165 PM peak hour trips, (104 inbound, 61 outbound).

Table 4-1: Project Trip Generation Estimates

Land Use	Units	Daily		A.M. Peak Hour					P.M. Peak Hour				
		Rate	Total	Rate	In:Out	In	Out	Total	Rate	In:Out	In	Out	Total
Single-Family Detached Housing (210)	171	9.43	1,653	0.70	25:75	30	91	121	0.94	63:37	104	61	165

Reference: *Trip Generation Manual, 11th Edition*, Institute of Transportation Engineers. Rates shown are in trips per dwelling unit.

4.2 Project Trip Distribution and Assignment

Trip distribution is a process that determines the proportion of vehicles that are expected to travel between the Project site and various destinations outside the Project study area and determines the various routes that vehicles would likely take from the Project site to each destination using the calculated trip distribution. The regional distribution of Project trips was estimated by performing a select zone analysis using an appropriate travel model. The Tulare County Association of Governments (TGAG) maintains an activity-based model for Tulare County, including City of Tulare. TCAG was contacted regarding this analysis. Trip distribution assumptions for the proposed Project were developed based on existing travel patterns, knowledge of the study area, and consultation with City staff and the TCAG travel demand model.

The Project trips shown in Table 4-1 were distributed on the nearby roadway network. Figure 4-1 shows the Project trip distribution percentages that were developed for the project from the travel demand model from TCAG and Figure 4-2 shows the trip assignment for the project. The assigned Project trips were then added to traffic volumes under Existing Conditions to generate Existing Plus Project Peak Hour Traffic Volumes shown on Figure 4-3.

4.3 Intersection Level of Service Analysis – Existing Plus Project Conditions

Results of the intersection level of service analysis for Existing Plus Project Conditions are summarized in Table 4-2 below. The results for Existing Conditions are included for comparison purposes. LOS calculation sheets for Existing Plus Project Conditions are included in Appendix E.

Under this scenario, all intersections continue to operate at acceptable service levels (LOS D or better) during the AM and PM peak hour.

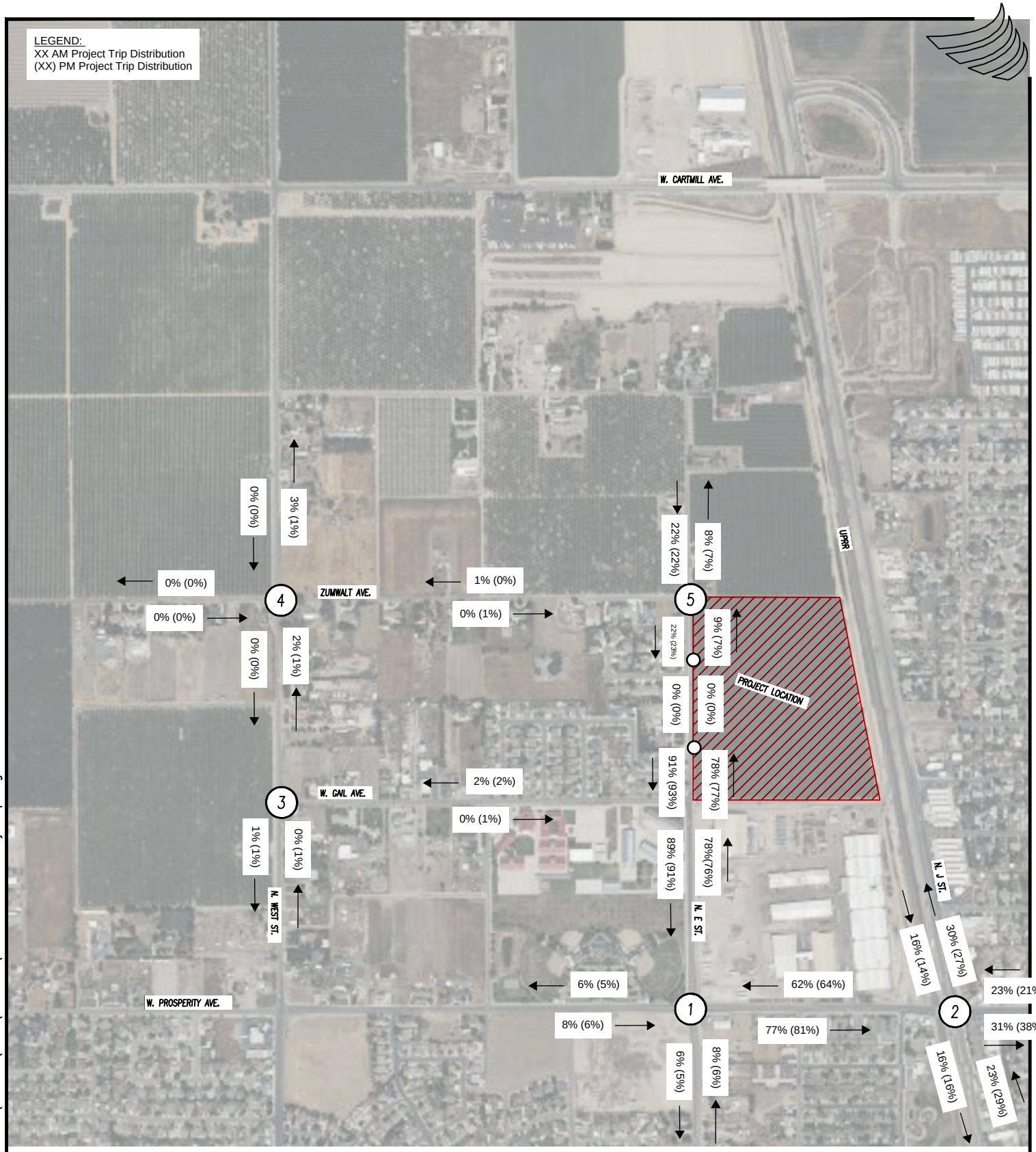

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FIGURE 4-1: Project Trip Distribution

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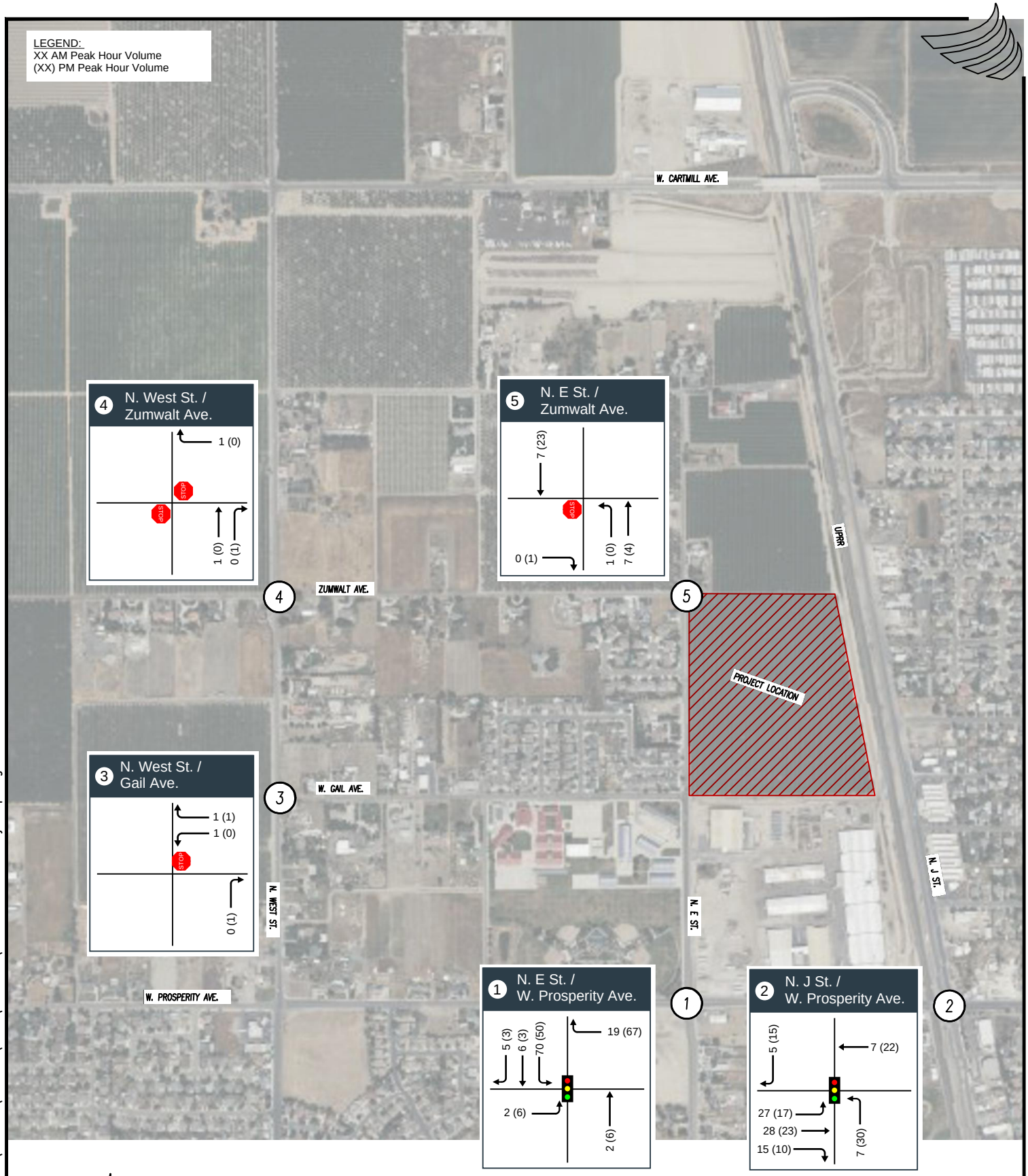

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FIGURE 4-2: Project Trip Assignment

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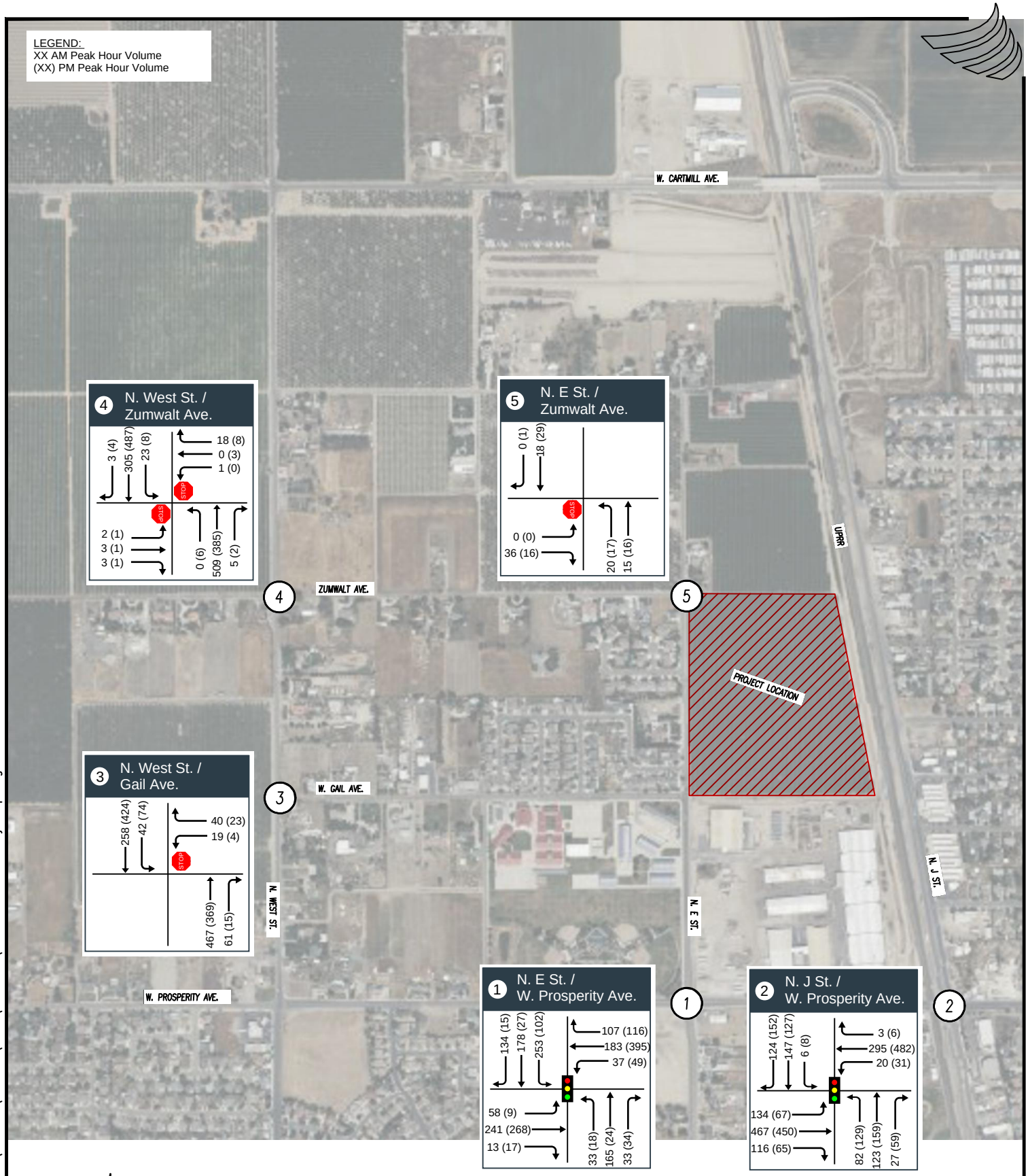

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FIGURE 4-3: Existing Plus Project Conditions Peak Hour Traffic Volumes

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Table 4-2: Intersection Level of Service Analysis - Existing Plus Project Conditions

#	Intersection	Control	Peak Hour[1]	Existing Conditions		Existing Plus Project Conditions		Change in Delay
				Delay[2]	LOS[3]	Delay[2]	LOS[3]	
1	N. E St./W. Prosperity Ave.	Signalized	AM	12.9	B	14.4	B	1.5
			PM	13.8	B	13.3	B	-0.5
2	J St./W. Prosperity Ave.	Signalized	AM	11.6	B	11.7	B	0.1
			PM	11.8	B	12.3	B	0.5
3	N. West St./W. Gail Ave.	WB Stop Controlled	AM	16.3	C	16.5	C	0.2
			PM	12.2	B	12.2	B	0.0
4	N. West St./Zumwalt Ave.	TWSC	AM	17.0	C	17.0	C	0.0
			PM	17.8	C	17.9	C	0.1
5	N. E St./Zumwalt Ave.	EB Stop Controlled	AM	8.6	A	8.6	A	0.0
			PM	8.4	A	8.6	A	0.2

Notes:

4. AM – morning peak hour, PM – evening peak hour
5. Delay – Entire intersection weighted average control delay expressed in seconds per vehicle for signalized and all way stop-controlled intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
6. LOS – Level of Service. **Bold** indicates unacceptable Level of Service. **Red** indicates a significant impact.

4.4 Signal Warrant Analysis – Existing Plus Project Conditions

The results of Warrant 3, Peak Hour Warrant, under Existing Plus Project Conditions are summarized in Table 4-3 below.

Intersections 3, 4, and 5 do not meet Warrant 3 for either the AM or PM peak hour.

Table 4-3: Warrant 3, Peak Hour Signal Warrant Results - Existing Plus Project Conditions

#	Intersection	Control	Meets AM Peak Hour?	Meets PM Peak Hour?
3	N. West St./W. Gail Ave.	WB Stop-Controlled	No	No
4	N. West St./Zumwalt Ave.	TWSC	No	No
5	N. E St./Zumwalt Ave.	EB Stop-Controlled	No	No

4.5 Queuing Analysis – Existing Plus Project Conditions

The queuing analyses under Existing Plus Project Conditions are summarized in Table 4-4 below. The existing turn pocket lengths are adequate.

Table 4-4: 95th Percentile Queues - Existing Plus Project Conditions

#	Intersection	Lane Group	Storage Length (ft)	Existing + Project AM Queue	Existing + Project PM Queue
1	N. E St./W. Prosperity Ave.	NB Lt	150	17	12
		SB Lt	150	107	42
		EB Lt	150	31	8
		WB Lt	140	23	26
		WB Rt	140	14	30
2	N. J St./W. Prosperity Ave.	NB Lt	200	36	57
		SB Lt	190	6	7

5. Cumulative (Year 2046) Without Project Conditions

This section presents the results of the level of service calculations under Cumulative (Year 2046) Without Project Conditions. Existing Conditions volumes at the study intersections were projected forward 21 years using a growth rate of 2% per year. This growth rate was based on City of Tulare census data growth from the year 2010 to 2023. Figure 5-1 shows projected turning movement volumes at the study intersections for Cumulative (Year 2046) Without Project Conditions.

5.1 Intersection Level of Service Analysis – Cumulative (Year 2046) Without Project Conditions

The intersection LOS analysis results for Cumulative 2046 Without Project Conditions are summarized in Table 5-1. LOS calculations sheets for Cumulative 2046 With Project Conditions are included in Appendix F.

Under the Cumulative (Year 2046) Without Project scenario, all intersections continue to operate at acceptable service levels (LOS D or better) during the AM and PM peak hour.

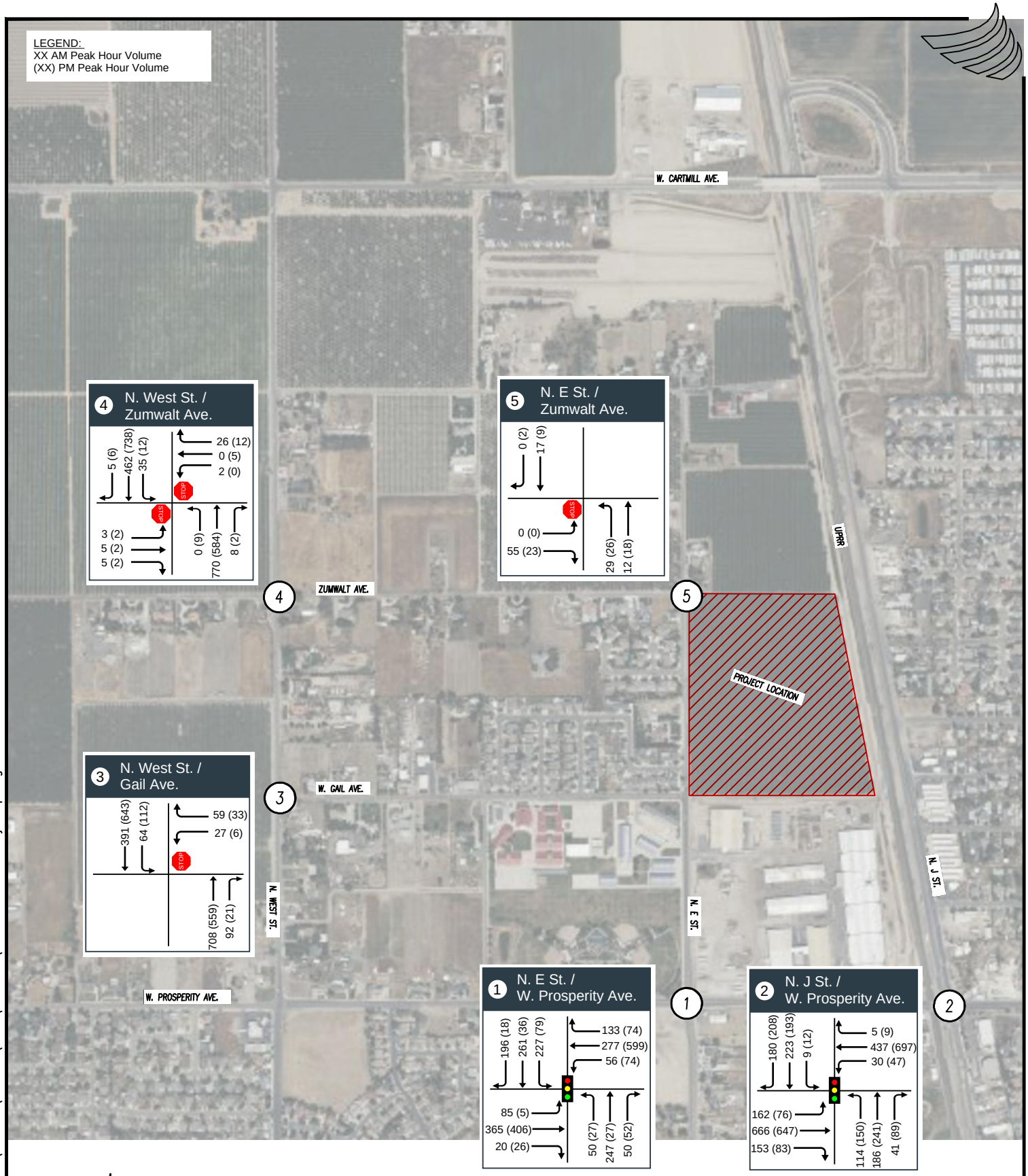

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FIGURE 5-1: Cumulative Year 2046 Without Project Peak Hour Traffic Volumes

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Table 5-1: Intersection Level of Service Analysis - Cumulative (Year 2046) Without Project Conditions

#	Intersection	Control	Peak Hour[1]	Cumulative 2046 Without Project Conditions	
				Delay[2]	LOS[3]
1	N. E St./W. Prosperity Ave.	Signalized	AM	13.1	B
			PM	15.8	B
2	J St./W. Prosperity Ave.	Signalized	AM	14.3	B
			PM	13.6	B
3	N. West St./W. Gail Ave.	WB Stop-Controlled	AM	28.4	D
			PM	18.0	C
4	N. West St./Zumwalt Ave.	TWSC	AM	28.9	D
			PM	33.2	D
5	N. E St./Zumwalt Ave.	EB Stop-Controlled	AM	8.6	A
			PM	8.4	A

Notes:

1. AM – morning peak hour, PM – evening peak hour
2. Delay – Entire intersection weighted average control delay expressed in seconds per vehicle for signalized and all way stop-controlled intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
3. LOS – Level of Service. **Bold** indicates unacceptable Level of Service. Red indicates a significant impact.

5.2 Signal Warrant Analysis – Cumulative (Year 2046) Without Project Conditions

The results of the peak hour warrant under Cumulative (Year 2046) Without Project Conditions are summarized in Table 5-2 below.

Intersections 3, 4, and 5 do not meet Warrant 3 for either the AM or PM peak hour.

Table 5-2: Warrant 3, Peak Hour Signal Warrant Results - Cumulative (Year 2046) Without Project Conditions

#	Intersection	Control	Meets AM Peak Hour?	Meets PM Peak Hour?
3	N. West St./W. Gail Ave.	WB Stop-Controlled	No	No
4	N. West St./Zumwalt Ave.	TWSC	No	No
5	N. E St./Zumwalt Ave.	EB Stop-Controlled	No	No

5.3 Queuing Analysis – Cumulative (Year 2046) Without Project Conditions

The queuing analyses under Cumulative (Year 2046) Without Project Conditions are summarized in Table 5-3 below. The southbound left turn pocket for Intersection 1 (N. E Street/W. Prosperity Avenue) is noted in Synchro 12 to exceed capacity and that the queue may be longer than the existing storage length in the AM peak hour. As described in the methodology Section 2.2 "Queueing Analysis", Synchro 12 presents signalized intersection queues as the 95th-percentile queue lengths. In this case, the volume may exceed capacity and the queue may be longer than shown. For this reason, the southbound left turn pocket length for Intersection 1 has been highlighted as possibly insufficient.

Table 5-3: 95th Percentile Queues - Cumulative (Year 2046) Without Project Conditions

#	Intersection	Lane Group	Storage Length (ft)	Cumulative 2046 No Project AM Queue	Cumulative 2046 No Project PM Queue
1	N. E St./W. Prosperity Ave.	NB Lt	150	27	21
		SB Lt	150	**129**	46
		EB Lt	150	39	5
		WB Lt	140	30	37
		WB Rt	140	23	16
2	N. J St./W. Prosperity Ave.	NB Lt	200	78	78
		SB Lt	190	11	10

6. Cumulative (Year 2046) Plus Project Conditions

This section presents the results of the level of service calculations under Cumulative (Year 2046) Plus Project Conditions. Existing Conditions volumes at the study intersections were projected forward 21 years using a growth rate of 2% per year. This growth rate was based on City of Tulare census data growth from the year 2010 to 2023.

Trip distribution and trip assignment assumptions are the same as those assumed under Existing Plus Project Conditions. Figure 6-1 shows projected turning movement volumes at the study intersections for Cumulative (Year 2046) Plus Project Conditions. Trip assignment values for the proposed project from Figure 4-2 were added to the Cumulative Year 2046 Conditions in Figure 5-1 to generate the peak hour volumes for Cumulative 2046 With Project Conditions (see Figure 6-1).

6.1 Intersection Level of Service Analysis – Cumulative (Year 2046) Plus Project Conditions

The intersection LOS analysis results for Cumulative 2046 Plus Project Conditions are summarized in Table 6-1. LOS calculations sheets for Cumulative 2046 Plus Project Conditions are included in Appendix G.

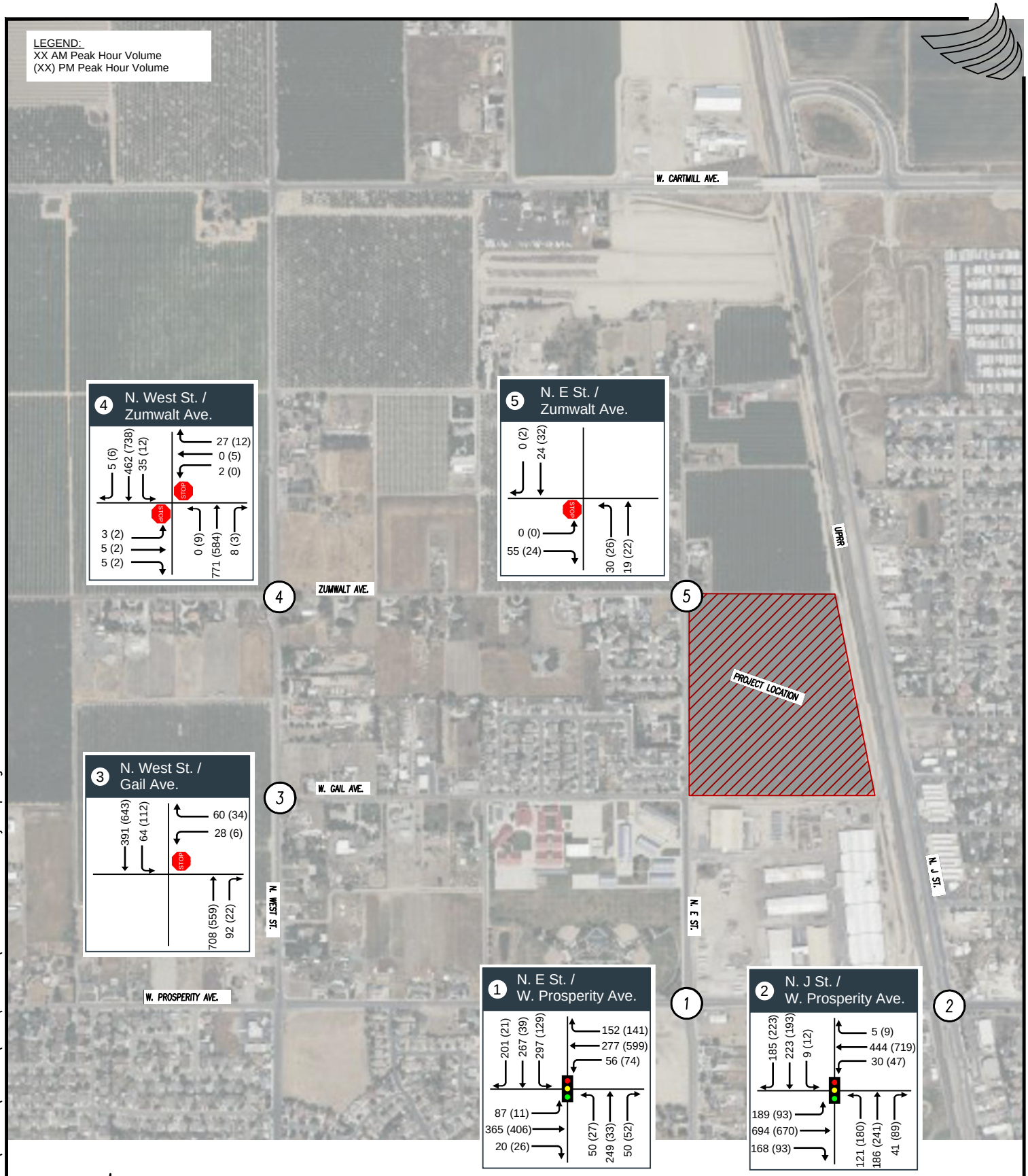
Under the Cumulative (Year 2046) Plus Project scenario, all intersections continue to operate at acceptable service levels (LOS D or better) during the AM and PM peak hour.

Table 6-1: Intersection Level of Service Analysis - Cumulative (Year 2046) Plus Project Conditions

#	Intersection	Control	Peak Hour[1]	Cumulative 2046 Without Project Conditions		Cumulative 2046 Plus Project Conditions		Change In Delay
				Delay[2]	LOS[3]	Delay[2]	LOS[3]	
1	N. E St./W. Prosperity Ave.	Signalized	AM	13.1	B	14.4	B	1.3
			PM	15.8	B	15.4	B	-0.4
2	J St./W. Prosperity Ave.	Signalized	AM	14.3	B	14.8	B	0.5
			PM	13.6	B	14.2	B	0.6
3	N. West St./W. Gail Ave.	WB Stop-Controlled	AM	28.4	D	28.9	D	0.5
			PM	18.0	C	17.9	C	-0.1
4	N. West St./Zumwalt Ave.	TWSC	AM	28.9	D	29.0	D	0.1
			PM	33.2	D	32.8	D	-0.4
5	N. E St./Zumwalt Ave.	EB Stop-Controlled	AM	8.6	A	8.6	A	0.0
			PM	8.4	A	8.6	A	0.2

Notes:

1. AM – morning peak hour, PM – evening peak hour
2. Delay – Entire intersection weighted average control delay expressed in seconds per vehicle for signalized and all way stop-controlled intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
3. LOS – Level of Service. **Bold** indicates unacceptable Level of Service. Red indicates a significant impact.



NORTH

FIGURE 6-1: Cumulative Year 2046 Plus Project Peak Hour Traffic Volumes

SANTA FE WEST SUBDIVISION TIA
TULARE, CA

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\\Server\projects\Projects\2024\240767\240767\ACAD\EXHIBITS\240767_Site-Vicinity Map.dwg

6.2 Signal Warrant Analysis – Cumulative (Year 2046) Plus Project Conditions

The results of the peak hour warrant under Cumulative (Year 2046) Plus Project Conditions are summarized in Table 6-2 below.

Intersections 3, 4, and 5 do not meet Warrant 3 for either the AM or PM peak hour.

Table 6-2: Warrant 3, Peak Hour Signal Warrant Results - Cumulative (Year 2046) Plus Project Conditions

#	Intersection	Control	Meets AM Peak Hour?	Meets PM Peak Hour?
3	N. West St./W. Gail Ave.	WB Stop Controlled	No	No
4	N. West St./Zumwalt Ave.	TWSC	No	No
5	N. E St./Zumwalt Ave.	EB Stop Controlled	No	No

6.3 Queuing Analysis – Cumulative (Year 2046) Plus Project Conditions

The queuing analyses under Cumulative (Year 2046) Plus Project Conditions are summarized in Table 6-3 below. The existing southbound left turn pocket length for Intersection 1 (N. E Street/W. Prosperity Avenue) is insufficient during the AM peak hour.

Table 6-3: 95th Percentile Queues - Cumulative (Year 2046) Plus Project Conditions

#	Intersection	Lane Group	Storage Length (ft)	Cumulative 2046 Plus Project AM Queue	Cumulative 2046 Plus Project PM Queue
1	N. E St./W. Prosperity Ave.	NB Lt	150	26	21
		SB Lt	150	**182**	71
		EB Lt	150	49	9
		WB Lt	140	38	37
		WB Rt	140	29	22
2	N. J St./W. Prosperity Ave.	NB Lt	200	81	98
		SB Lt	190	11	10

7. VMT Analysis

A vehicle miles traveled (VMT) analysis was conducted to determine whether the Project would create a VMT impact. The analysis was based on information provided by the City of Tulare's VMT guidance memorandum dated June 26, 2020. The Project was screened out from requiring a VMT analysis due to the Project location within a low VMT area. The Project was determined to have a less than significant VMT analysis and no mitigation measures were required. Additional information on the VMT screening analysis is shown in Appendix I.

8. Conclusions and Recommendations

8.1 Analysis Summary

The analysis presented in this report has identified that all five intersections remain within the City's adopted level of service standard (LOS D or better) for all study scenarios.

Intersections 3, 4, and 5 were evaluated using Signal Warrant 3, Peak Hour, for each study scenario. Warrant 3 was not met in any study scenario. However, a more detailed study in the future may be pertinent to consider additional factors, including a more detailed study into collision history, to determine further need for a traffic signal.

8.2 Recommended Improvements

Based on the analysis presented in this report, all five study intersections remain within the City's acceptable level of service (LOS D or better) for all study scenarios. Therefore, no improvements are currently recommended. However, the southbound left turn pocket capacity is possibly exceeded during the AM peak hour for Intersection 1 (N. E St./W. Prosperity Ave.) during the Cumulative (Year 2046) Without Project scenario and is exceeded during the AM peak hour for the Cumulative (Year 2046) Plus project scenario.

8.3 Project Proportionate Share Percentage

Per the analyses completed as part of this TIA, the southbound left turn pocket capacity is exceeded during the Cumulative (Year 2046) Plus Project scenario. The City should consider lengthening the left turn pocket at Intersection 1 (N. E St./W. Prosperity Ave.) from 150' to 200' to meet the queuing demand at that signalized intersection.

Based on the data in this TIA, the Project has the following proportionate share percentage for the southbound left turn pocket at Intersection 1:

$$P_{AM} = T/(T^{46} - T^{E})*100\% = 104/(2071-1331) = 14.1\%$$

- P = Project's Proportionate Share
- T = Project AM peak hour trips entering the intersection
- T^{46} = 2046 Plus Project AM peak hour trips entering the intersection

- T^E = Existing AM peak hour trips entering the intersection

$$P_{PM} = T/(T^{46} - T^E)*100\% = 135/(1558-939) = 21.8\%$$

- P = Project's Proportionate Share
- T = Project PM peak hour trips entering the intersection
- T^{46} = 2046 Plus Project PM peak hour trips entering the intersection
- T^E = Existing PM peak hour trips entering the intersection

$$P_{AVERAGE} = (P_{AM} + P_{PM})/2 = 18.0\%$$

Appendix A - Level of Service Methodology

The description and procedures for calculating capacity and level of service is found in Transportation Research Board, *Highway Capacity Manual (HCM) 7th edition*. The HCM represents the latest research on capacity and quality of service for transportation facilities and is the basis of design for this TIA.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service (LOS) is a measure of the operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and driver comfort and convenience.

Six levels of service are defined, and letters designate each level, A through F, with A representing the best operating conditions and F the worst. Each LOS represents a range of operating conditions and the driver's perception of these conditions. Safety is not a factor in establishing level of service.

The description of level of service for interrupted flow facilities are given in the table below. Interrupted flow facilities include signalized intersections and unsignalized intersections.

Level of Service	Description
A	Very low delay
B	Low delay
C	Acceptable delay
D	Tolerable delay
E	Limit of acceptable delay
F	Unacceptable delay

Reference: *Highway Capacity Manual, 7th Edition*, Transportation Research Board, 2024

LOS A describes primarily free-flow operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.

LOS B describes reasonably unimpeded operations. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.

LOS C describes stable operations, however, ability to maneuver and change lanes in midblock locations may be more restricted than LOS B. Longer queues, adverse signal coordination, or both may contribute to lower travel speeds.

LOS D borders on a range in which small increases in flow may cause substantial increases in delay and decreases in travel speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination thereof.

LOS E is characterized by significant delays and lower travel speeds. Such operations are caused by a combination of adverse signal progression, inappropriate signal timing, high volumes, extensive delays at critical intersections, or high signal density.

LOS F is characterized by urban street flow at extremely low speeds. Intersection congestion is likely critical at signalized locations, with high delays, high volumes, and extensive queuing.

Signalized Intersections

The capacity of a roadway is related primarily to the geometric characteristics of the facility, as well as the composition of the traffic stream of the facility. Geometrics are a fixed characteristic of a facility. At a signalized intersection, an additional element is introduced to the concept of capacity: time allocation. A traffic signal allocates time among conflicting traffic movements that are seeking use of the same physical space. The way in which time is allocated has a significant impact on the operation of the intersection and on the capacity of the intersection and its approaches.

Level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, i.e., in the absence of traffic control, geometric delay, incidents, and any other vehicles. Specifically, level of service criteria for traffic signals are staged in terms of average control delay per vehicle, typically for a 15-minute analysis period. Delay is a complex measure and depends on a number of variables, including the quality of progression, cycle length, ratio of green time to cycle length, and the volume-to-capacity ratio for the lane group.

For each intersection analyzed, the average control delay per vehicle per approach is determined for the peak hour. A weighted average of control delay per vehicle is then determined at the intersection. A level of service designation is given to the control delay to better describe the level of operation. The description of levels of service for signalized intersections can be found below.

Level of Service	Description	Average Vehicle Delay (seconds)
A	Volume-to-capacity ratio is no greater than 1.0. Progression is exceptionally favorable, or the cycle length is very short.	<10
B	Volume-to-capacity ratio is no greater than 1.0. Progression is highly favorable, or the cycle length is very short.	>10-20
C	Volume-to-capacity ratio is no greater than 1.0. Progression is favorable, or the cycle length is moderate.	>20-35
D	Volume-to-capacity ratio is high but no greater than 1.0. Progression is ineffective or cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35-55
E	Volume-to-capacity ratio is high but no greater than 1.0. Progression is unfavorable and cycle length is long. Individual cycle failures are frequent.	>55-80
F	Volume-to-capacity ratio is greater than 1.0. Progression is very poor and cycle length is long. Most cycles fail to clear the queue.	>80

Reference: *Highway Capacity Manual, 7th Edition,* Transportation Research Board, 2024

Unsignalized Intersections

The current procedures for unsignalized intersections are laid out in the HCM. The current procedures use control delay as a measure of effectiveness to determine level of service. Delay is a measure of driver comfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic, and incidents. Total delay is the

difference between the travel time actually experienced and the reference travel time that would result during base conditions, i.e., in the absence of traffic control, geometric delay, incidents, and any other vehicles. Control delay is the increased time of travel for a vehicle approaching and passing through an unsignalized intersection, compared with a free-flow vehicle if it were not required to stop or slow at the intersection.

The Transportation Research Board *Highway Capacity Manual, 7th Edition*, (HCM) defines level of service (LOS) as "a quantitative stratification of a performance measure or measures that represent quality of service, measured on an A-F scale, with LOS A representing the best operating conditions from the traveler's perspective and LOS F the worst".

Two-Way Stop Controlled Intersections

Two-way stop-controlled intersections (TWSC) in which stop signs are used to assign the right-of-way are the most prevalent type of intersection in the United States. At TWSC intersections, the stop-controlled approaches are referred to as minor street approaches and can be either public streets or private driveways. The approaches that are not controlled by stop signs are referred to as the major street approaches.

The capacity of movements subject to delay are determined using the "critical gap" method of capacity analysis. Expected average control delay based on movement volume and movement capacity is calculated. A LOS designation is given to the expected control delay for each minor movement. LOS is not defined for the intersection as a whole. Control delay is the increased time of travel for a vehicle approaching and passing through a stop-controlled intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection. A description of LOS for TWSC intersections are shown below.

Level of Service	Average Vehicle Delay (seconds)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

Reference: *Highway Capacity Manual, 7th Edition,* Transportation Research Board, 2024

LOS ratings for stop-controlled intersections are based on the average control delay expressed in seconds per vehicle. At one- or two-way stop-controlled intersections, the control delay is calculated for each movement, not the intersection as a whole. For approaches consisting of a single lane, the control delay is computed as the average of all movements in that lane. The delay ranges for unsignalized intersections are lower than for signalized intersections because drivers expect less delay at stop-controlled intersections.

Each of the study intersections were analyzed using Synchro 12 software and HCM 7th edition methodology. The LOS assessment under all scenarios is based on current traffic controls unless otherwise noted.

Appendix B - Existing Traffic Counts

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Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

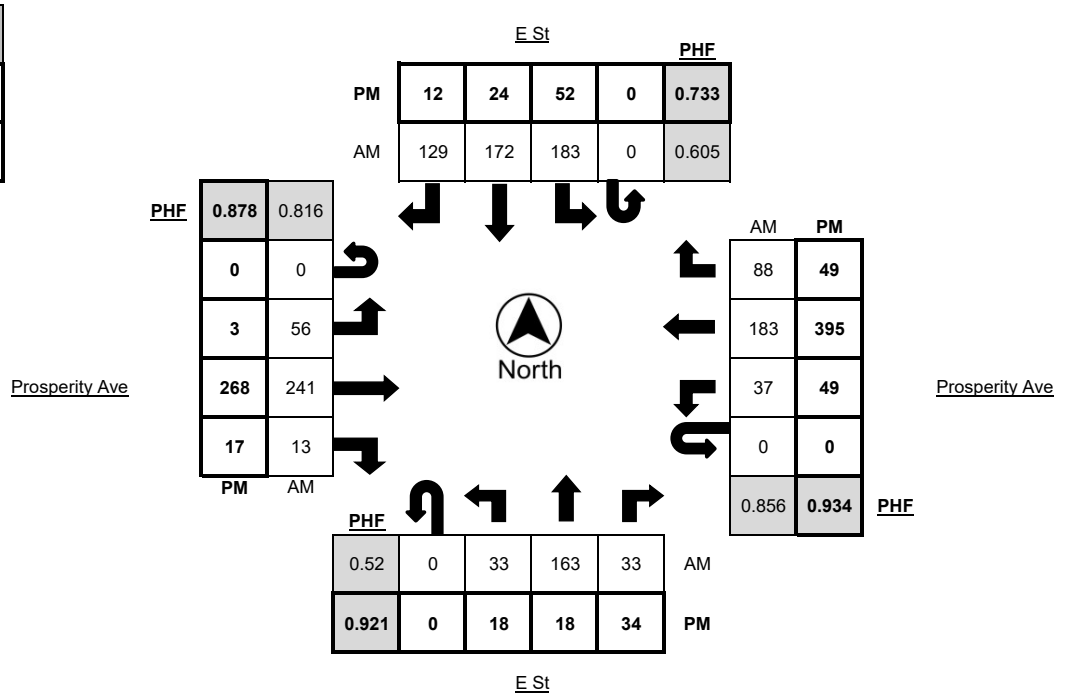
LOCATION	Prosperity Ave @ E St	**LATITUDE**	36.2257
COUNTY	Tulare	**LONGITUDE**	-119.3578
COLLECTION DATE	Wednesday, February 5, 2025	**WEATHER**	Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	1	1	4	0	0	9	1	2	1	0	1	37	1	0	0	0	23	7	2
7:15 AM - 7:30 AM	0	1	3	5	1	0	10	2	0	0	0	1	44	3	2	0	3	42	8	1
7:30 AM - 7:45 AM	0	6	31	8	1	0	30	18	17	2	0	8	63	2	0	0	3	28	24	1
7:45 AM - 8:00 AM	0	22	73	15	3	0	71	71	48	4	0	28	63	4	0	0	12	45	33	1
8:00 AM - 8:15 AM	0	5	48	5	0	0	70	70	60	2	0	17	62	4	0	0	11	54	22	1
8:15 AM - 8:30 AM	0	0	11	5	0	0	12	13	4	0	0	3	53	3	1	0	11	56	9	1
8:30 AM - 8:45 AM	0	1	4	7	0	0	10	3	2	0	0	2	41	2	0	0	2	37	6	2
8:45 AM - 9:00 AM	0	1	1	4	0	0	3	0	2	0	0	1	44	3	2	0	4	47	4	1
TOTAL	**0**	**37**	**172**	**53**	**5**	**0**	**215**	**178**	**135**	**9**	**0**	**61**	**407**	**22**	**5**	**0**	**46**	**332**	**113**	**10**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	3	7	2	0	0	12	6	2	1	0	0	64	4	1	0	9	99	10	1
4:15 PM - 4:30 PM	0	2	1	5	0	0	11	3	3	0	0	0	61	5	0	0	14	85	12	1
4:30 PM - 4:45 PM	0	1	0	8	0	0	11	2	2	0	0	0	73	3	0	0	13	101	14	0
4:45 PM - 5:00 PM	0	2	3	7	0	0	12	5	2	1	0	0	73	1	0	0	11	83	12	0
5:00 PM - 5:15 PM	0	5	4	9	0	0	13	4	4	0	0	1	62	6	2	0	15	95	22	1
5:15 PM - 5:30 PM	0	4	7	8	0	0	22	4	4	0	0	1	67	4	0	0	11	112	9	0
5:30 PM - 5:45 PM	0	6	4	9	0	0	7	10	2	0	0	1	63	1	0	0	13	97	10	0
5:45 PM - 6:00 PM	0	3	3	8	0	0	10	6	2	0	0	0	76	6	0	0	10	91	8	1
TOTAL	**0**	**26**	**29**	**56**	**0**	**0**	**98**	**40**	**21**	**2**	**0**	**3**	**539**	**30**	**3**	**0**	**96**	**763**	**97**	**4**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:30 AM - 8:30 AM	0	33	163	33	4	0	183	172	129	8	0	56	241	13	1	0	37	183	88	4
5:00 PM - 6:00 PM	0	18	18	34	0	0	52	24	12	0	0	3	268	17	2	0	49	395	49	2

	PHF	Trucks
AM	0.686	1.3%
PM	0.928	0.4%



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Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

LOCATION Prosperity Ave @ E St

LATITUDE 36.2257

COUNTY Tulare

LONGITUDE -119.3578

COLLECTION DATE Wednesday, February 5, 2025

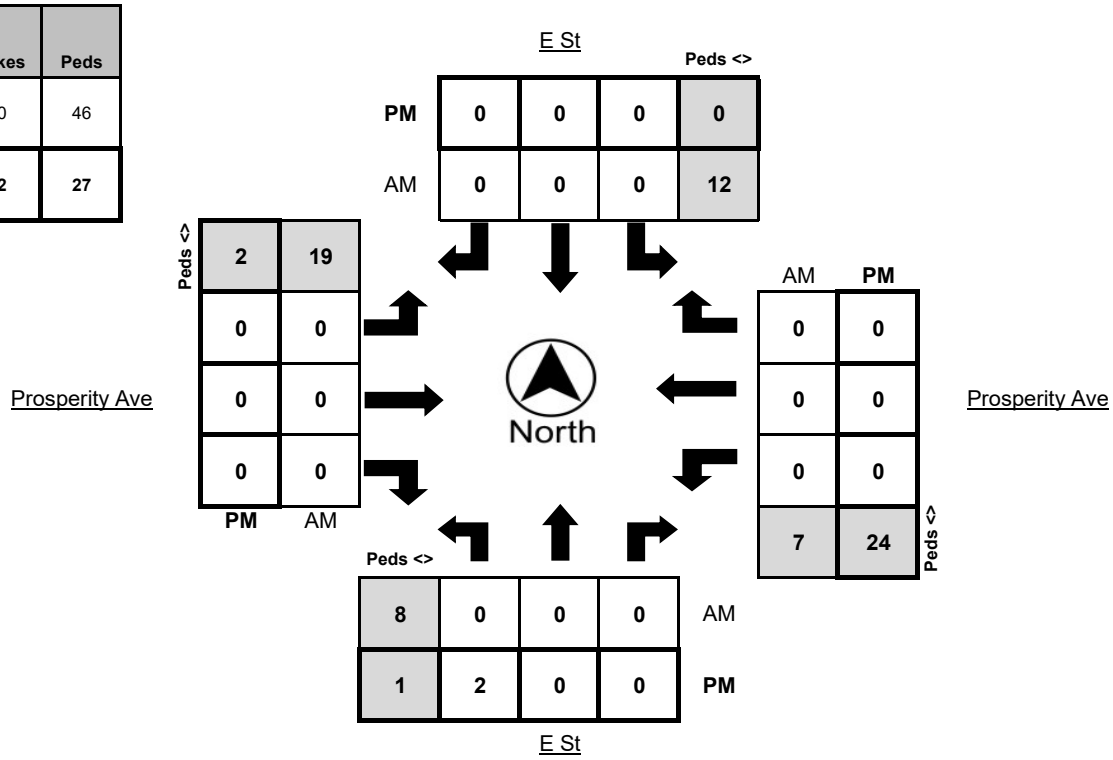
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**
7:00 AM - 7:15 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
7:30 AM - 7:45 AM	0	0	0	5	0	0	0	3	0	0	0	3	0	0	0	9
7:45 AM - 8:00 AM	0	0	0	2	0	0	0	2	0	0	0	3	0	0	0	4
8:00 AM - 8:15 AM	0	0	0	3	0	0	0	2	0	0	0	1	0	0	0	6
8:15 AM - 8:30 AM	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**26**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
4:45 PM - 5:00 PM	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
5:15 PM - 5:30 PM	2	0	0	0	0	0	0	1	0	0	0	11	0	0	0	1
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**32**	**0**	**0**	**0**	**8**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**
7:30 AM - 8:30 AM	0	0	0	12	0	0	0	8	0	0	0	7	0	0	0	19
5:00 PM - 6:00 PM	2	0	0	0	0	0	0	1	0	0	0	24	0	0	0	2

	Bikes	Peds
AM Peak Total	0	46
PM Peak Total	**2**	**27**



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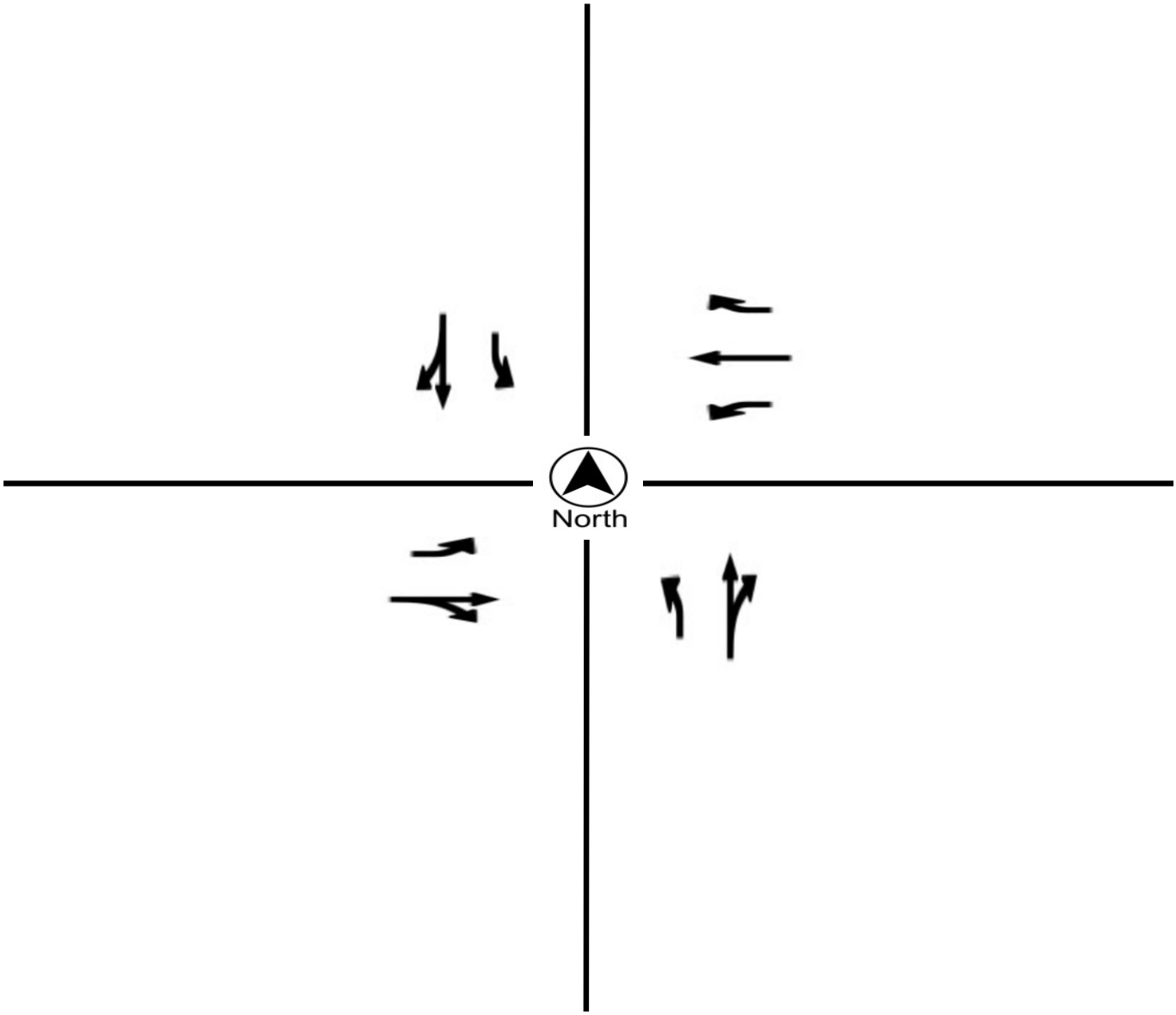
Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

LOCATION	Prosperity Ave @ E St	**N/S STREET**	E St / E St
COUNTY	Tulare	**E/W STREET**	Prosperity Ave / Prosperity Ave
COLLECTION DATE	Wednesday, February 5, 2025	**WEATHER**	Clear
CYCLE TIME	78 Seconds	**CONTROL TYPE**	signal

COMMENTS All approaches have protected left turns.



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800-975-6938 Phone/Fax
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Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

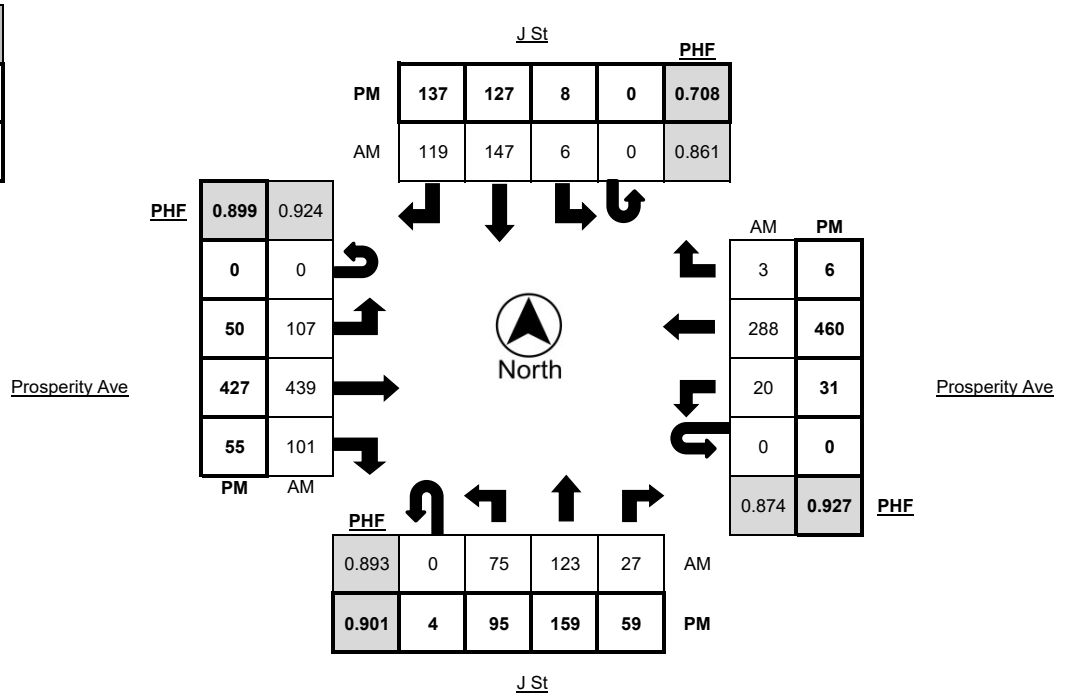
LOCATION	Prosperity Ave @ J St	**LATITUDE**	36.2256
COUNTY	Tulare	**LONGITUDE**	-119.3521
COLLECTION DATE	Wednesday, February 5, 2025	**WEATHER**	Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	6	22	3	2	0	1	22	13	1	0	12	44	10	1	0	5	23	0	2
7:15 AM - 7:30 AM	0	8	34	2	1	0	1	16	14	2	0	16	59	7	1	0	3	47	0	5
7:30 AM - 7:45 AM	0	16	43	4	3	0	4	40	22	0	0	51	87	18	3	0	5	45	0	3
7:45 AM - 8:00 AM	0	19	27	7	2	0	0	41	28	1	0	24	120	31	5	0	5	80	1	2
8:00 AM - 8:15 AM	0	21	31	8	1	0	1	36	42	2	0	15	97	32	1	0	6	80	0	0
8:15 AM - 8:30 AM	0	19	22	8	3	0	1	30	27	1	0	17	135	20	1	0	4	83	2	2
8:30 AM - 8:45 AM	0	14	31	11	5	0	0	22	11	1	0	13	82	8	3	0	6	46	5	2
8:45 AM - 9:00 AM	2	14	22	6	2	0	1	24	7	1	0	10	62	5	4	0	5	48	2	0
TOTAL	**2**	**117**	**232**	**49**	**19**	**0**	**9**	**231**	**164**	**9**	**0**	**158**	**686**	**131**	**19**	**0**	**39**	**452**	**10**	**16**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	1	18	46	17	0	0	2	45	23	0	0	20	96	15	4	0	6	111	1	0
4:15 PM - 4:30 PM	0	35	48	9	1	0	3	29	25	0	0	10	91	16	0	0	8	98	1	0
4:30 PM - 4:45 PM	1	30	35	13	0	0	2	25	21	0	0	12	92	11	1	0	6	109	0	0
4:45 PM - 5:00 PM	0	27	34	18	0	0	2	25	30	0	0	10	103	8	1	0	6	108	1	0
5:00 PM - 5:15 PM	1	19	51	10	0	0	3	25	32	0	0	11	98	14	1	0	4	123	3	1
5:15 PM - 5:30 PM	3	27	39	19	0	0	2	44	50	0	0	15	112	21	0	0	9	107	2	1
5:30 PM - 5:45 PM	0	22	35	12	1	0	1	33	25	0	0	14	114	12	0	0	12	122	0	0
5:45 PM - 6:00 PM	1	20	35	15	2	0	1	26	31	1	0	14	98	14	0	0	5	108	1	1
TOTAL	**7**	**198**	**323**	**113**	**4**	**0**	**16**	**252**	**237**	**1**	**0**	**106**	**804**	**111**	**7**	**0**	**56**	**886**	**9**	**3**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:30 AM - 8:30 AM	0	75	123	27	9	0	6	147	119	4	0	107	439	101	10	0	20	288	3	7
4:45 PM - 5:45 PM	4	95	159	59	1	0	8	127	137	0	0	50	427	55	2	0	31	460	6	2

	PHF	Trucks
AM	0.950	2.1%
PM	0.899	0.3%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

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www.metrotrafficdata.com

Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

LOCATION Prosperity Ave @ J St

LATITUDE 36.2256

COUNTY Tulare

LONGITUDE -119.3521

COLLECTION DATE Wednesday, February 5, 2025

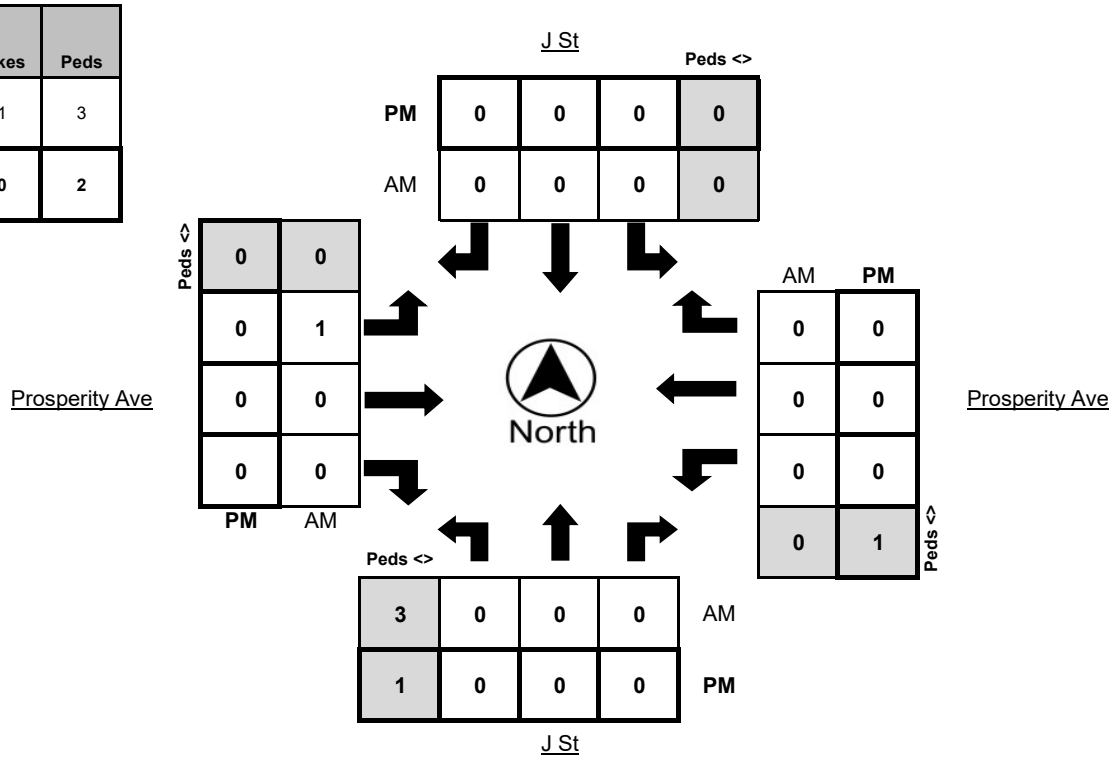
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**4**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0

	Bikes	Peds
AM Peak Total	1	3
PM Peak Total	**0**	**2**



Metro Traffic Data Inc.
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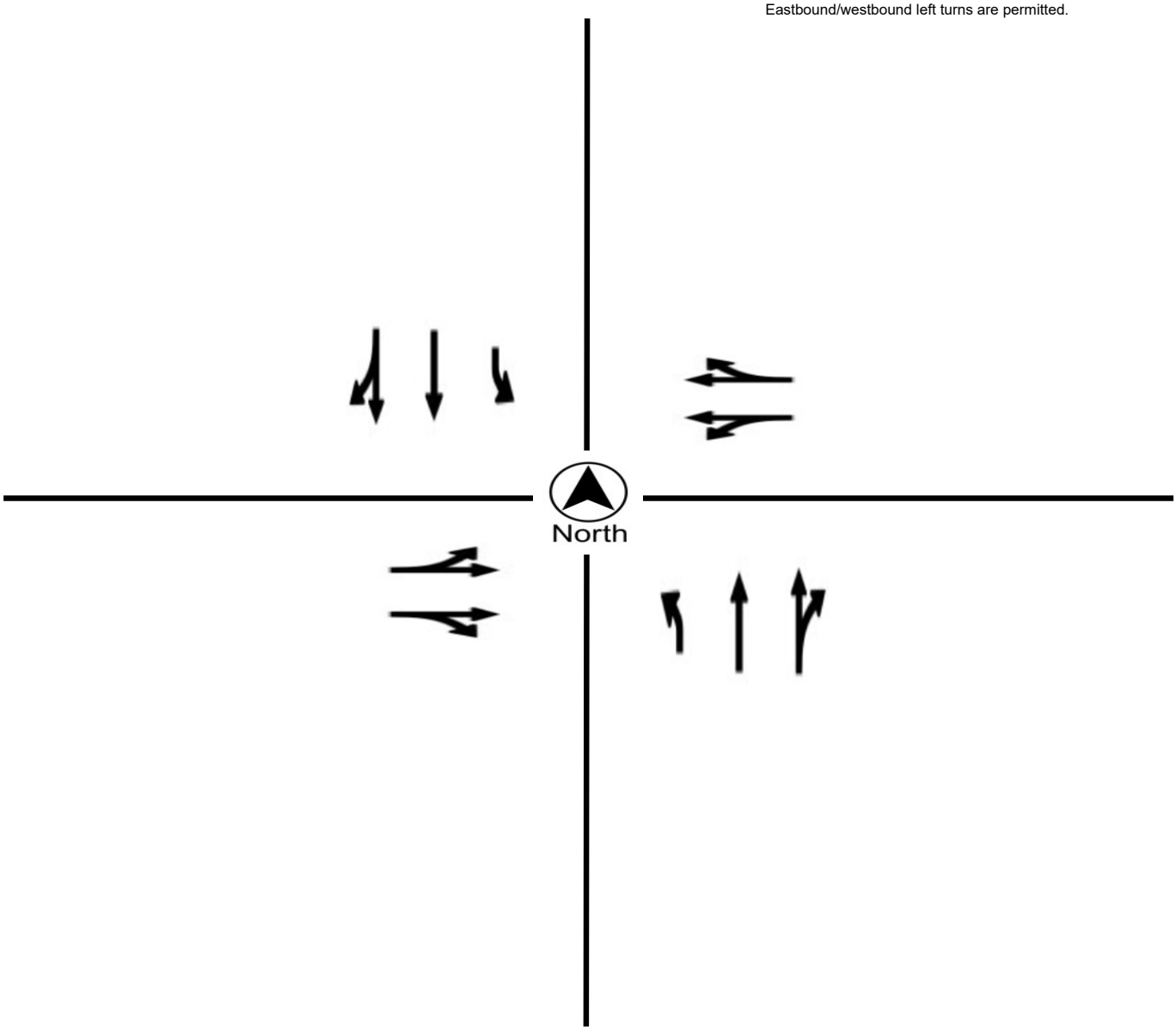
Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

LOCATION	Prosperity Ave @ J St	**N/S STREET**	J St / J St
COUNTY	Tulare	**E/W STREET**	Prosperity Ave / Prosperity Ave
COLLECTION DATE	Wednesday, February 5, 2025	**WEATHER**	Clear
CYCLE TIME	71 Seconds	**CONTROL TYPE**	signal

COMMENTS Northbound/southbound left turns are protected.
Eastbound/westbound left turns are permitted.



Metro Traffic Data Inc.
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Hanford, CA 93230

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Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

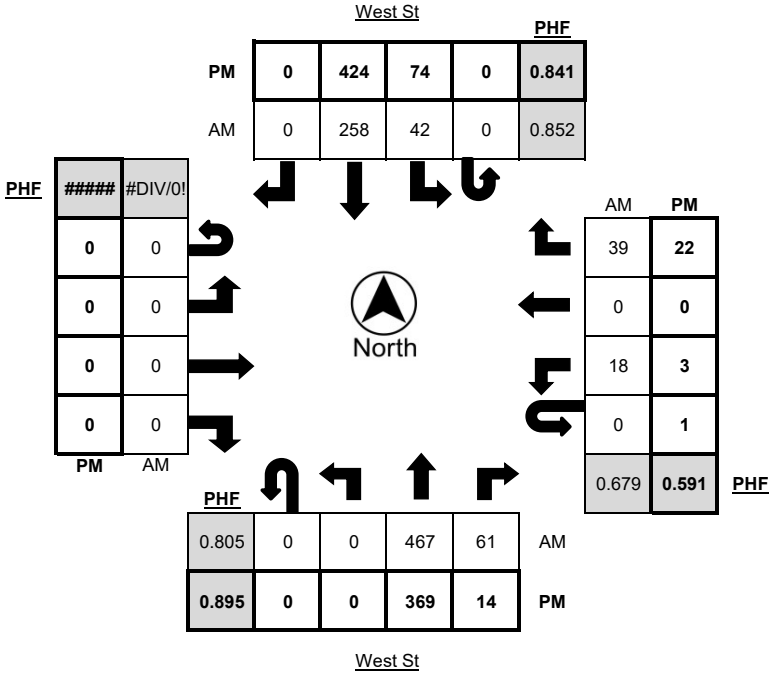
LOCATION	Gail Ave @ West St	**LATITUDE**	36.2293
COUNTY	Tulare	**LONGITUDE**	-119.3667
COLLECTION DATE	Wednesday, February 5, 2025	**WEATHER**	Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	0	114	2	1	0	7	63	0	3	0	0	0	0	0	0	0	0	4	0
7:15 AM - 7:30 AM	0	0	121	7	1	0	10	56	0	3	0	0	0	0	0	0	0	0	6	0
7:30 AM - 7:45 AM	0	0	147	17	0	0	11	77	0	0	0	0	0	0	0	0	2	0	10	0
7:45 AM - 8:00 AM	0	0	92	25	1	0	11	69	0	1	0	0	0	0	0	0	5	0	13	0
8:00 AM - 8:15 AM	0	0	107	12	0	0	10	56	0	1	0	0	0	0	0	0	11	0	10	0
8:15 AM - 8:30 AM	0	0	103	2	2	0	2	68	0	1	0	0	0	0	0	0	1	0	2	0
8:30 AM - 8:45 AM	0	0	103	0	0	0	3	68	0	4	0	0	0	0	0	0	1	0	2	0
8:45 AM - 9:00 AM	0	0	79	1	2	0	2	49	0	3	0	0	0	0	0	0	0	0	1	0
TOTAL	**0**	**0**	**866**	**66**	**7**	**0**	**56**	**506**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**0**	**48**	**0**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	0	74	2	2	0	18	113	0	0	0	0	0	0	0	0	0	0	7	0
4:15 PM - 4:30 PM	0	0	72	0	1	0	9	108	0	1	0	0	0	0	0	0	0	0	4	0
4:30 PM - 4:45 PM	0	0	105	2	0	0	11	106	0	0	0	0	0	0	0	0	0	0	9	0
4:45 PM - 5:00 PM	0	0	79	3	1	0	24	105	0	0	0	0	0	0	0	1	0	0	5	0
5:00 PM - 5:15 PM	0	0	99	4	2	0	13	91	0	0	0	0	0	0	0	0	3	0	8	0
5:15 PM - 5:30 PM	0	0	86	5	0	0	26	122	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	91	0	2	0	23	96	0	0	0	0	0	0	0	0	0	0	4	0
5:45 PM - 6:00 PM	0	0	65	1	0	0	5	109	0	0	0	0	0	0	0	0	0	0	2	0
TOTAL	**0**	**0**	**671**	**17**	**8**	**0**	**129**	**850**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	**0**	**39**	**0**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	0	0	467	61	2	0	42	258	0	5	0	0	0	0	0	0	18	0	39	0
4:30 PM - 5:30 PM	0	0	369	14	3	0	74	424	0	0	0	0	0	0	0	1	3	0	22	0

	PHF	Trucks
AM	0.838	0.8%
PM	0.949	0.3%



Metro Traffic Data Inc.
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Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

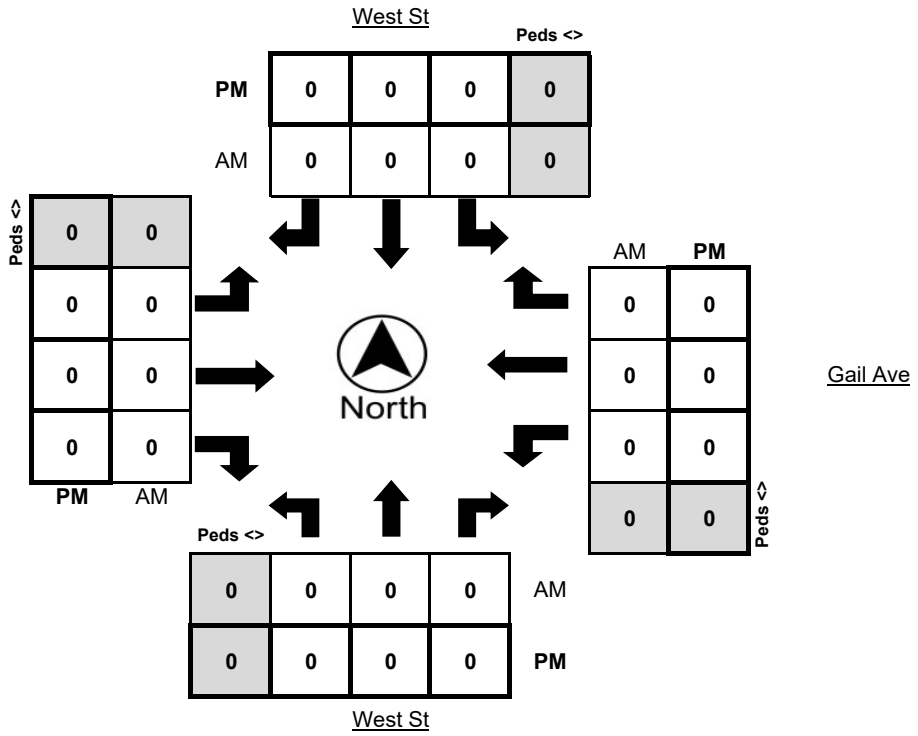
LOCATION	Gail Ave @ West St	**LATITUDE**	36.2293
COUNTY	Tulare	**LONGITUDE**	-119.3667
COLLECTION DATE	Wednesday, February 5, 2025	**WEATHER**	Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**	**Left**	**Thru**	**Right**	**Peds**
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**0**	**0**



Metro Traffic Data Inc.
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Hanford, CA 93230

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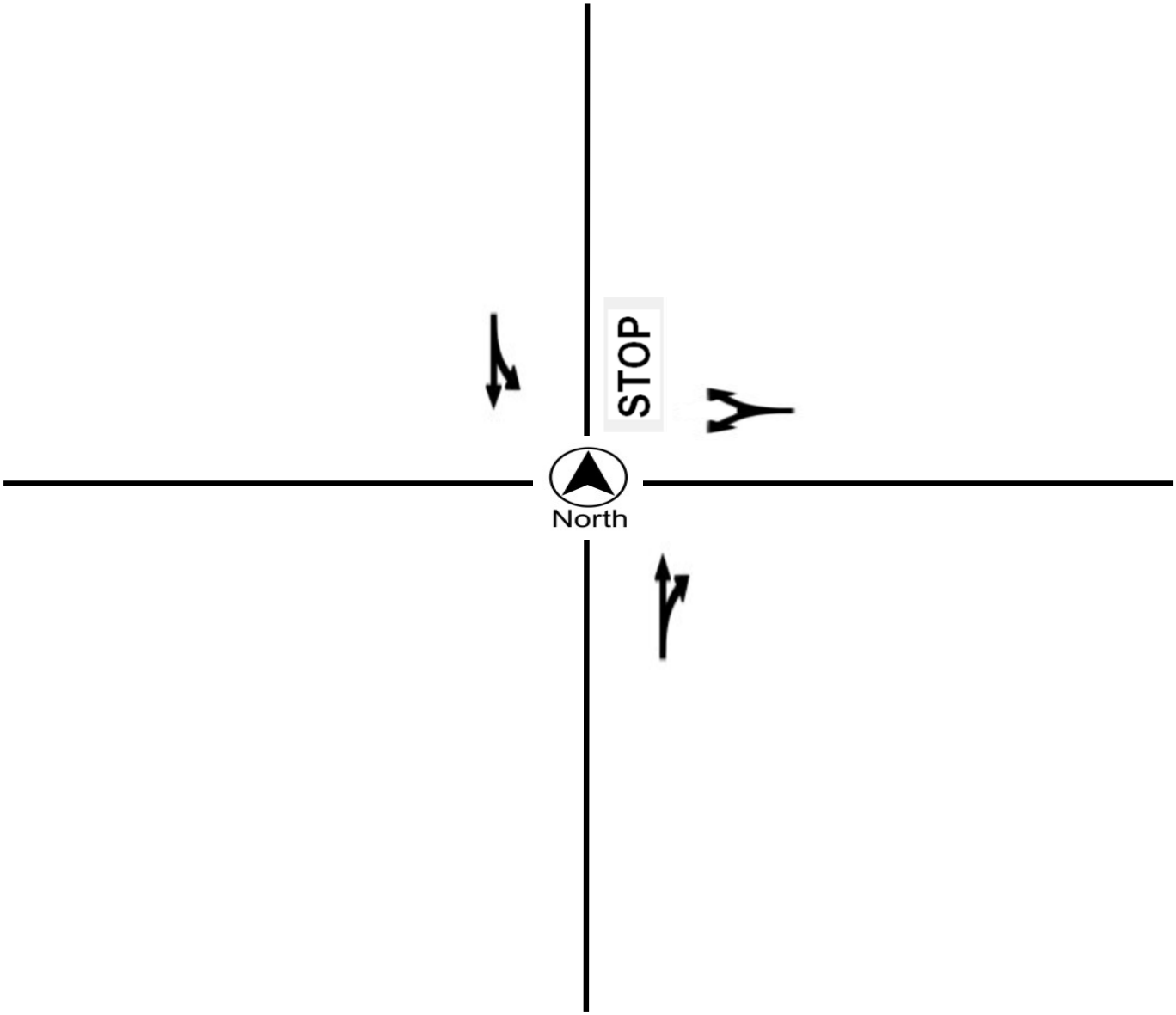
Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

LOCATION	Gail Ave @ West St	**N/S STREET**	West St / West St
COUNTY	Tulare	**E/W STREET**	Gail Ave /
COLLECTION DATE	Wednesday, February 5, 2025	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	One-Way Stop

COMMENTS



Metro Traffic Data Inc.

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Hanford, CA 93230

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www.metrotrafficdata.com

Multi-Modal Approach Counts

Prepared For:
4-Creeks, Inc.
324 S Santa Fe St
Visalia, CA 93292

LOCATION Gail Ave @ West St

COUNTY Tulare

COLLECTION DATE Wednesday, February 5, 2025

LATITUDE 36.229339

LONGITUDE -119.3667429

WEATHER Clear

			Northbound			Southbound			Eastbound			Westbound			TOTALS	TOTALS	TOTALS	TOTALS
Time			Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Pedestrians	ALL
12:00 AM	to	12:15 AM	8	0	0	12	0	0	0	0	0	0	0	0	20	0	0	20
12:15 AM	to	12:30 AM	7	0	0	15	0	0	0	0	0	0	0	0	22	0	0	22
12:30 AM	to	12:45 AM	7	0	0	11	0	0	0	0	0	0	0	0	18	0	0	18
12:45 AM	to	1:00 AM	6	0	0	13	0	0	0	0	0	0	0	0	19	0	0	19
1:00 AM	to	1:15 AM	4	0	0	10	0	0	0	0	0	0	0	0	14	0	0	14
1:15 AM	to	1:30 AM	2	0	0	5	0	0	0	0	0	0	0	0	7	0	0	7
1:30 AM	to	1:45 AM	7	0	0	8	0	0	0	0	0	1	0	0	16	0	0	16
1:45 AM	to	2:00 AM	4	0	0	10	0	0	0	0	0	0	0	0	14	0	0	14
2:00 AM	to	2:15 AM	5	0	0	6	0	0	0	0	0	0	0	0	11	0	0	11
2:15 AM	to	2:30 AM	2	0	0	4	0	0	0	0	0	0	0	0	6	0	0	6
2:30 AM	to	2:45 AM	9	0	0	9	0	0	0	0	0	0	0	0	18	0	0	18
2:45 AM	to	3:00 AM	7	0	0	7	0	0	0	0	0	0	0	0	14	0	0	14
3:00 AM	to	3:15 AM	3	0	0	7	0	0	0	0	0	0	0	0	10	0	0	10
3:15 AM	to	3:30 AM	9	0	0	6	0	0	0	0	0	1	0	0	16	0	0	16
3:30 AM	to	3:45 AM	21	0	0	9	0	0	0	0	0	0	0	0	30	0	0	30
3:45 AM	to	4:00 AM	12	0	0	4	0	0	0	0	0	0	0	0	16	0	0	16
4:00 AM	to	4:15 AM	10	0	0	8	0	0	0	0	0	2	0	0	20	0	0	20
4:15 AM	to	4:30 AM	37	0	0	5	0	0	0	0	0	1	0	0	43	0	0	43
4:30 AM	to	4:45 AM	47	0	0	9	0	0	0	0	0	3	0	0	59	0	0	59
4:45 AM	to	5:00 AM	48	0	0	12	0	0	0	0	0	1	0	0	61	0	0	61
5:00 AM	to	5:15 AM	43	0	0	11	0	0	0	0	0	0	0	0	54	0	0	54
5:15 AM	to	5:30 AM	51	0	0	6	0	0	0	0	0	2	0	0	59	0	0	59
5:30 AM	to	5:45 AM	73	0	0	16	0	0	0	0	0	0	0	0	89	0	0	89
5:45 AM	to	6:00 AM	58	0	0	20	0	0	0	0	0	2	0	0	80	0	0	80
6:00 AM	to	6:15 AM	74	0	0	27	0	0	0	0	0	4	0	0	105	0	0	105
6:15 AM	to	6:30 AM	79	0	0	40	0	0	0	0	0	3	0	0	122	0	0	122
6:30 AM	to	6:45 AM	116	0	0	47	0	0	0	0	0	10	0	0	173	0	0	173
6:45 AM	to	7:00 AM	103	0	0	51	0	0	0	0	0	3	0	0	157	0	0	157
7:00 AM	to	7:15 AM	116	0	0	70	0	0	0	0	0	4	0	0	190	0	0	190
7:15 AM	to	7:30 AM	128	0	1	66	0	0	0	0	0	6	0	0	200	0	1	201
7:30 AM	to	7:45 AM	164	0	0	88	0	0	0	0	0	12	0	0	264	0	0	264
7:45 AM	to	8:00 AM	117	0	0	80	0	0	0	0	0	18	0	0	215	0	0	215
8:00 AM	to	8:15 AM	119	0	0	66	0	0	0	0	0	21	0	0	206	0	0	206

8:15 AM	**to**	**8:30 AM**	105	0	0	70	0	1	0	0	0	3	0	0	**178**	**0**	**1**	**179**
8:30 AM	**to**	**8:45 AM**	103	0	0	71	0	0	0	0	0	3	0	0	**177**	**0**	**0**	**177**
8:45 AM	**to**	**9:00 AM**	80	0	0	51	0	0	0	0	0	1	0	0	**132**	**0**	**0**	**132**
9:00 AM	**to**	**9:15 AM**	62	0	0	48	0	0	0	0	0	3	0	0	**113**	**0**	**0**	**113**
9:15 AM	**to**	**9:30 AM**	65	0	0	49	0	0	0	0	0	7	0	0	**121**	**0**	**0**	**121**
9:30 AM	**to**	**9:45 AM**	89	0	0	64	0	0	0	0	0	1	0	0	**154**	**0**	**0**	**154**
9:45 AM	**to**	**10:00 AM**	63	0	0	70	0	0	0	0	0	1	0	0	**134**	**0**	**0**	**134**
10:00 AM	**to**	**10:15 AM**	71	0	0	58	0	0	0	0	0	3	0	0	**132**	**0**	**0**	**132**
10:15 AM	**to**	**10:30 AM**	78	0	0	50	0	0	0	0	0	0	0	0	**128**	**0**	**0**	**128**
10:30 AM	**to**	**10:45 AM**	69	0	0	63	0	0	0	0	0	2	0	0	**134**	**0**	**0**	**134**
10:45 AM	**to**	**11:00 AM**	46	0	0	65	0	0	0	0	0	2	0	0	**113**	**0**	**0**	**113**
11:00 AM	**to**	**11:15 AM**	60	0	0	69	0	0	0	0	0	4	0	0	**133**	**0**	**0**	**133**
11:15 AM	**to**	**11:30 AM**	55	0	0	72	0	0	0	0	0	1	0	0	**128**	**0**	**0**	**128**
11:30 AM	**to**	**11:45 AM**	68	0	0	59	0	0	0	0	0	3	0	0	**130**	**0**	**0**	**130**
11:45 AM	**to**	**12:00 PM**	64	0	0	61	0	0	0	0	0	2	0	0	**127**	**0**	**0**	**127**
12:00 PM	**to**	**12:15 PM**	68	0	0	70	0	0	0	0	0	6	0	0	**144**	**0**	**0**	**144**
12:15 PM	**to**	**12:30 PM**	68	0	0	53	0	0	0	0	0	3	0	0	**124**	**0**	**0**	**124**
12:30 PM	**to**	**12:45 PM**	69	0	0	68	0	0	0	0	0	11	0	0	**148**	**0**	**0**	**148**
12:45 PM	**to**	**1:00 PM**	67	0	0	85	0	0	0	0	0	7	0	0	**159**	**0**	**0**	**159**
1:00 PM	**to**	**1:15 PM**	72	0	0	68	0	0	0	0	0	8	0	0	**148**	**0**	**0**	**148**
1:15 PM	**to**	**1:30 PM**	89	0	0	102	0	0	0	0	0	3	0	0	**194**	**0**	**0**	**194**
1:30 PM	**to**	**1:45 PM**	84	0	0	77	0	0	0	0	0	22	0	0	**183**	**0**	**0**	**183**
1:45 PM	**to**	**2:00 PM**	74	0	0	85	0	0	0	0	0	2	0	0	**161**	**0**	**0**	**161**
2:00 PM	**to**	**2:15 PM**	78	0	0	89	0	0	0	0	0	3	0	0	**170**	**0**	**0**	**170**
2:15 PM	**to**	**2:30 PM**	76	0	0	95	0	1	0	0	0	7	0	0	**178**	**0**	**1**	**179**
2:30 PM	**to**	**2:45 PM**	84	0	0	90	0	0	0	0	0	5	0	0	**179**	**0**	**0**	**179**
2:45 PM	**to**	**3:00 PM**	74	0	0	82	0	0	0	0	0	8	0	0	**164**	**0**	**0**	**164**
3:00 PM	**to**	**3:15 PM**	60	0	0	110	0	0	0	0	0	4	0	0	**174**	**0**	**0**	**174**
3:15 PM	**to**	**3:30 PM**	105	0	0	129	0	0	0	0	0	3	0	0	**237**	**0**	**0**	**237**
3:30 PM	**to**	**3:45 PM**	112	0	0	124	0	0	0	0	0	27	0	0	**263**	**0**	**0**	**263**
3:45 PM	**to**	**4:00 PM**	108	0	0	129	0	0	0	0	0	19	0	0	**256**	**0**	**0**	**256**
4:00 PM	**to**	**4:15 PM**	76	0	0	131	0	0	0	0	0	7	0	0	**214**	**0**	**0**	**214**
4:15 PM	**to**	**4:30 PM**	72	0	0	117	0	0	0	0	0	4	0	0	**193**	**0**	**0**	**193**
4:30 PM	**to**	**4:45 PM**	107	0	0	117	0	0	0	0	0	9	0	0	**233**	**0**	**0**	**233**
4:45 PM	**to**	**5:00 PM**	82	0	0	129	0	0	0	0	0	6	0	0	**217**	**0**	**0**	**217**
5:00 PM	**to**	**5:15 PM**	103	0	0	104	0	0	0	0	0	11	0	0	**218**	**0**	**0**	**218**
5:15 PM	**to**	**5:30 PM**	91	0	0	148	0	0	0	0	0	0	0	0	**239**	**0**	**0**	**239**
5:30 PM	**to**	**5:45 PM**	91	0	0	119	0	0	0	0	0	4	0	0	**214**	**0**	**0**	**214**
5:45 PM	**to**	**6:00 PM**	66	0	0	114	0	0	0	0	0	2	0	0	**182**	**0**	**0**	**182**
6:00 PM	**to**	**6:15 PM**	72	0	0	107	0	0	0	0	0	4	0	0	**183**	**0**	**0**	**183**
6:15 PM	**to**	**6:30 PM**	76	0	0	106	0	0	0	0	0	4	0	0	**186**	**0**	**0**	**186**
6:30 PM	**to**	**6:45 PM**	60	0	0	95	0	0	0	0	0	1	0	0	**156**	**0**	**0**	**156**
6:45 PM	**to**	**7:00 PM**	55	0	0	106	0	0	0	0	0	3	0	0	**164**	**0**	**0**	**164**
7:00 PM	**to**	**7:15 PM**	37	0	0	73	0	0	0	0	0	2	0	0	**112**	**0**	**0**	**112**
7:15 PM	**to**	**7:30 PM**	44	0	0	91	0	0	0	0	0	3	0	0	**138**	**0**	**0**	**138**
7:30 PM	**to**	**7:45 PM**	36	0	0	69	0	0	0	0	0	0	0	0	**105**	**0**	**0**	**105**
7:45 PM	**to**	**8:00 PM**	30	0	0	58	0	0	0	0	0	2	0	0	**90**	**0**	**0**	**90**
8:00 PM	**to**	**8:15 PM**	35	0	0	60	0	0	0	0	0	1	0	0	**96**	**0**	**0**	**96**
8:15 PM	**to**	**8:30 PM**	33	0	0	65	0	0	0	0	0	0	0	0	**98**	**0**	**0**	**98**
8:30 PM	**to**	**8:45 PM**	22	0	0	55	0	0	0	0	0	1	0	0	**78**	**0**	**0**	**78**
8:45 PM	**to**	**9:00 PM**	23	0	0	60	0	0	0	0	0	0	0	0	**83**	**0**	**0**	**83**

9:00 PM	to	9:15 PM	27	0	0	45	0	0	0	0	0	2	0	0	74	0	0	74
9:15 PM	to	9:30 PM	28	0	0	45	0	0	0	0	0	1	0	0	74	0	0	74
9:30 PM	to	9:45 PM	30	0	0	40	0	0	0	0	0	1	0	0	71	0	0	71
9:45 PM	to	10:00 PM	25	0	0	48	0	0	0	0	0	0	0	0	73	0	0	73
10:00 PM	to	10:15 PM	21	0	0	36	0	0	0	0	0	5	0	0	62	0	0	62
10:15 PM	to	10:30 PM	16	0	0	34	0	0	0	0	0	5	0	0	55	0	0	55
10:30 PM	to	10:45 PM	13	0	0	33	0	0	0	0	0	2	0	0	48	0	0	48
10:45 PM	to	11:00 PM	9	0	0	28	0	0	0	0	0	1	0	0	38	0	0	38
11:00 PM	to	11:15 PM	14	0	0	29	0	0	0	0	0	0	0	0	43	0	0	43
11:15 PM	to	11:30 PM	8	0	0	33	0	0	0	0	0	0	0	0	41	0	0	41
11:30 PM	to	11:45 PM	18	0	0	12	0	0	0	0	0	0	0	0	30	0	0	30
11:45 PM	to	12:00 AM	8	0	0	23	0	0	0	0	0	0	0	0	31	0	0	31
DAILY TOTALS			5290	0	1	5464	0	2	0	0	0	349	0	0	11103	0	3	11106

			Northbound			Southbound			Eastbound			Westbound			PH	PH	PH	PH	
PEAK HOUR			Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Pedestrians	ALL	PHF
7:15 AM	to	8:15 AM	528	0	1	300	0	0	0	0	0	57	0	0	885	0	1	886	0.84
3:15 PM	to	4:15 PM	401	0	0	513	0	0	0	0	0	56	0	0	970	0	0	970	0.92

Metro Traffic Data Inc.
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Hanford, CA 93230

800-975-6938 Phone/Fax
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Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

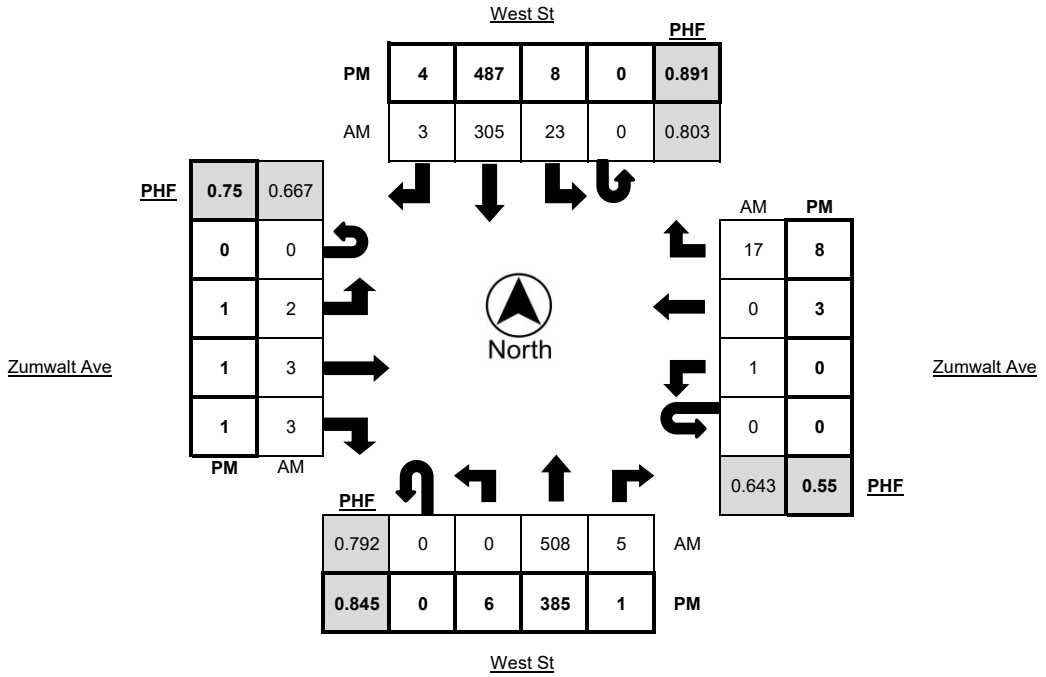
LOCATION	Zumwalt Ave @ West St	**LATITUDE**	36.2329
COUNTY	Tulare	**LONGITUDE**	-119.3668
COLLECTION DATE	Wednesday, February 5, 2025	**WEATHER**	Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	0	117	1	0	0	3	51	0	4	0	0	1	2	0	0	1	0	4	0
7:15 AM - 7:30 AM	0	0	126	2	0	0	1	72	0	5	0	0	0	0	0	0	0	0	2	0
7:30 AM - 7:45 AM	0	0	162	0	0	0	5	69	2	2	0	1	1	0	0	0	0	0	5	0
7:45 AM - 8:00 AM	0	0	102	2	0	0	14	88	1	3	0	1	1	1	1	0	1	0	3	0
8:00 AM - 8:15 AM	0	0	118	1	0	0	3	76	0	3	0	0	1	2	0	0	0	0	7	0
8:15 AM - 8:30 AM	0	1	104	1	2	0	4	56	0	2	0	1	0	0	1	0	1	0	1	0
8:30 AM - 8:45 AM	0	1	100	1	0	0	1	60	2	7	0	2	0	1	1	0	0	0	1	0
8:45 AM - 9:00 AM	0	0	84	0	2	0	0	49	2	5	0	2	0	0	0	0	0	1	2	0
TOTAL	**0**	**2**	**913**	**8**	**4**	**0**	**31**	**521**	**7**	**31**	**0**	**7**	**4**	**6**	**3**	**0**	**3**	**1**	**25**	**0**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	0	81	1	2	0	0	125	2	0	0	0	0	0	0	0	1	0	5	0
4:15 PM - 4:30 PM	0	0	77	0	1	0	2	114	4	1	0	0	0	1	0	0	0	1	2	0
4:30 PM - 4:45 PM	0	1	114	1	0	0	2	128	1	0	0	1	0	0	0	0	0	1	0	0
4:45 PM - 5:00 PM	0	0	79	0	1	0	4	126	0	0	0	0	1	0	1	0	0	1	4	0
5:00 PM - 5:15 PM	0	4	103	0	2	0	2	93	3	0	0	0	0	0	0	0	0	1	1	0
5:15 PM - 5:30 PM	0	1	89	0	0	0	0	140	0	0	0	0	0	1	0	0	0	0	3	0
5:30 PM - 5:45 PM	0	0	89	1	3	0	1	121	2	0	0	0	2	0	0	0	0	0	2	0
5:45 PM - 6:00 PM	0	0	73	0	0	0	2	105	1	0	0	2	0	0	0	0	0	0	1	0
TOTAL	**0**	**6**	**705**	**3**	**9**	**0**	**13**	**952**	**13**	**1**	**0**	**3**	**3**	**2**	**1**	**0**	**1**	**4**	**18**	**0**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:15 AM - 8:15 AM	0	0	508	5	0	0	23	305	3	13	0	2	3	3	1	0	1	0	17	0
4:30 PM - 5:30 PM	0	6	385	1	3	0	8	487	4	0	0	1	1	1	1	0	0	3	8	0

	PHF	Trucks
AM	0.888	1.6%
PM	0.909	0.4%



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Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

LOCATION Zumwalt Ave @ West St

LATITUDE 36.2329

COUNTY Tulare

LONGITUDE -119.3668

COLLECTION DATE Wednesday, February 5, 2025

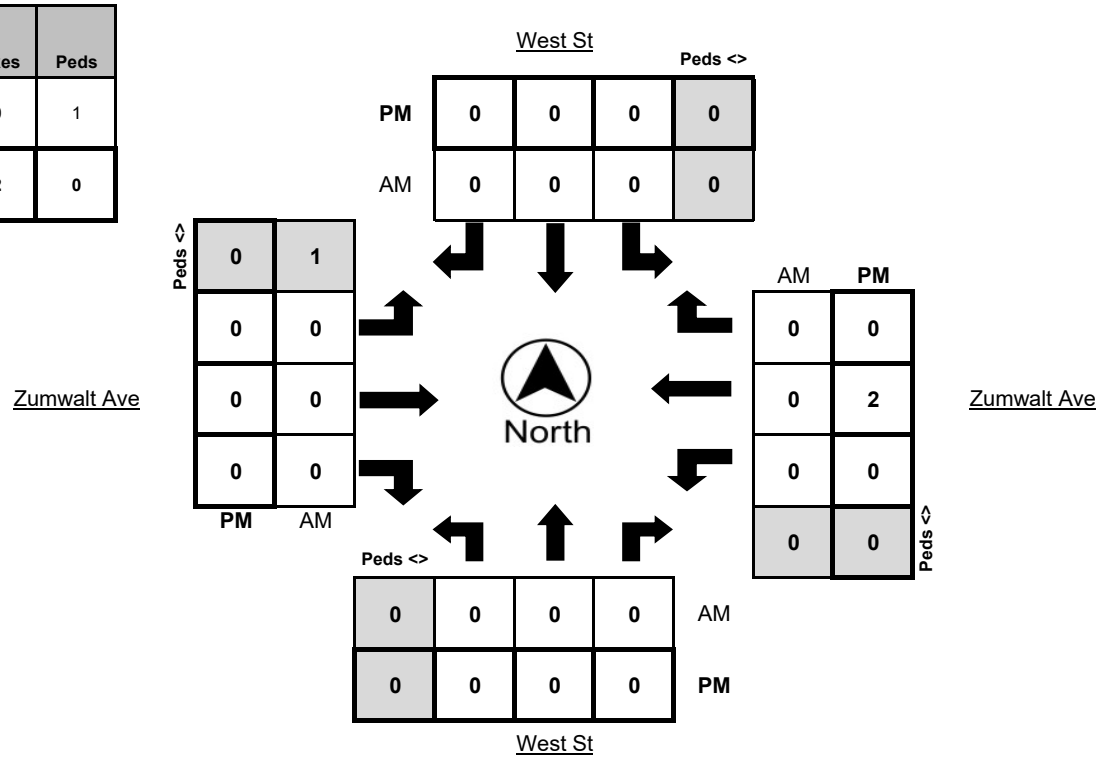
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0

	Bikes	Peds
AM Peak Total	0	1
PM Peak Total	**2**	**0**



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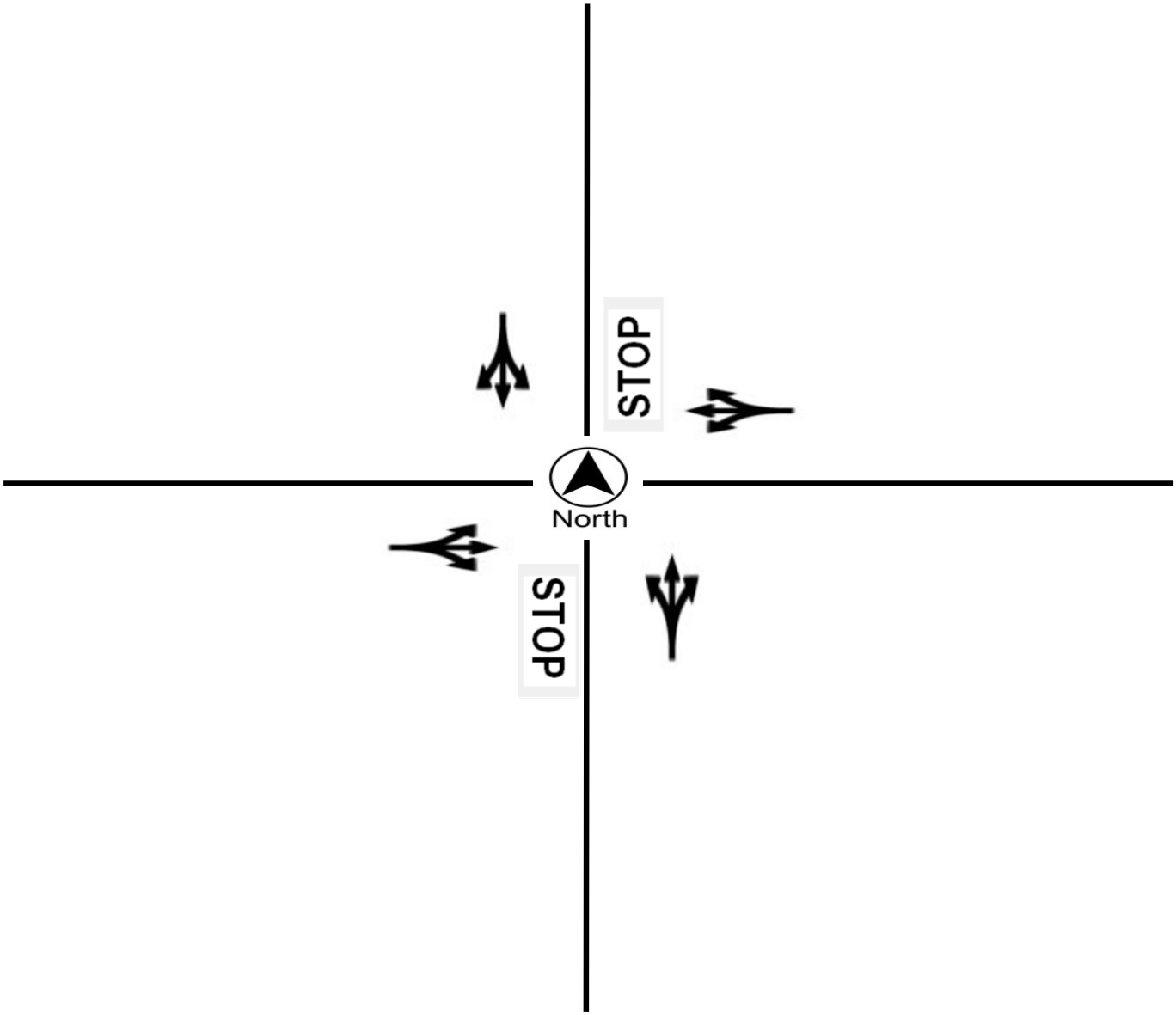
Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

LOCATION	Zumwalt Ave @ West St	**N/S STREET**	West St / West St
COUNTY	Tulare	**E/W STREET**	Zumwalt Ave / Zumwalt Ave
COLLECTION DATE	Wednesday, February 5, 2025	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	Two-Way Stop

COMMENTS



Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Multi-Modal Approach Counts

Prepared For:
4-Creeks, Inc.
324 S Santa Fe St
Visalia, CA 93292

LOCATION Zumwalt Ave @ West St

COUNTY Tulare

COLLECTION DATE Wednesday, February 5, 2025

LATITUDE 36.2329129

LONGITUDE -119.366789

WEATHER Clear

			Northbound			Southbound			Eastbound			Westbound			TOTALS	TOTALS	TOTALS	TOTALS
Time			Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Pedestrians	ALL
12:00 AM	to	12:15 AM	9	0	0	12	0	0	0	0	0	0	0	0	21	0	0	21
12:15 AM	to	12:30 AM	7	0	0	15	0	0	0	0	0	0	0	0	22	0	0	22
12:30 AM	to	12:45 AM	6	0	0	11	0	0	0	0	0	0	0	0	17	0	0	17
12:45 AM	to	1:00 AM	7	0	0	13	0	0	0	0	0	0	0	0	20	0	0	20
1:00 AM	to	1:15 AM	4	0	0	11	0	0	0	0	0	0	0	0	15	0	0	15
1:15 AM	to	1:30 AM	2	0	0	4	0	0	0	0	0	0	0	0	6	0	0	6
1:30 AM	to	1:45 AM	8	0	0	9	0	0	0	0	0	0	0	0	17	0	0	17
1:45 AM	to	2:00 AM	4	0	0	10	0	0	0	0	0	0	0	0	14	0	0	14
2:00 AM	to	2:15 AM	5	0	0	6	0	0	0	0	0	0	0	0	11	0	0	11
2:15 AM	to	2:30 AM	2	0	0	4	0	0	0	0	0	0	0	0	6	0	0	6
2:30 AM	to	2:45 AM	9	0	0	9	0	0	0	0	0	0	0	0	18	0	0	18
2:45 AM	to	3:00 AM	7	0	0	7	0	0	0	0	0	0	0	0	14	0	0	14
3:00 AM	to	3:15 AM	3	0	0	7	0	0	0	0	0	0	0	0	10	0	0	10
3:15 AM	to	3:30 AM	9	0	0	6	0	0	0	0	0	0	0	0	15	0	0	15
3:30 AM	to	3:45 AM	20	0	0	10	0	0	0	0	0	0	0	0	30	0	0	30
3:45 AM	to	4:00 AM	14	0	0	4	0	0	0	0	0	0	0	0	18	0	0	18
4:00 AM	to	4:15 AM	13	0	0	8	0	0	0	0	0	0	0	0	21	0	0	21
4:15 AM	to	4:30 AM	39	0	0	4	0	0	0	0	0	0	0	0	43	0	0	43
4:30 AM	to	4:45 AM	50	0	0	9	0	0	0	0	0	0	0	0	59	0	0	59
4:45 AM	to	5:00 AM	46	0	0	12	0	0	0	0	0	0	0	0	58	0	0	58
5:00 AM	to	5:15 AM	42	0	0	11	0	0	1	0	0	0	0	0	54	0	0	54
5:15 AM	to	5:30 AM	52	0	0	6	0	0	0	0	0	0	0	0	58	0	0	58
5:30 AM	to	5:45 AM	72	0	0	15	0	0	2	0	0	0	0	0	89	0	0	89
5:45 AM	to	6:00 AM	65	0	0	23	0	0	0	0	0	0	0	0	88	0	0	88
6:00 AM	to	6:15 AM	75	0	0	28	0	0	3	0	0	1	0	0	107	0	0	107
6:15 AM	to	6:30 AM	83	0	0	28	0	0	2	0	0	2	0	0	115	0	0	115
6:30 AM	to	6:45 AM	122	0	0	39	0	0	7	0	0	2	0	0	170	0	0	170
6:45 AM	to	7:00 AM	106	0	0	50	0	0	0	0	0	2	0	0	158	0	0	158
7:00 AM	to	7:15 AM	118	0	0	54	0	0	3	0	0	5	0	0	180	0	0	180
7:15 AM	to	7:30 AM	128	0	0	73	0	0	0	0	0	2	0	0	203	0	0	203
7:30 AM	to	7:45 AM	162	0	1	76	0	0	2	0	0	5	0	0	245	0	1	246
7:45 AM	to	8:00 AM	104	0	0	103	0	0	3	0	0	4	0	0	214	0	0	214
8:00 AM	to	8:15 AM	119	0	0	79	0	0	3	0	0	7	0	0	208	0	0	208

8:15 AM	**to**	**8:30 AM**	106	0	0	60	0	1	1	0	0	2	0	0	**169**	**0**	**1**	**170**
8:30 AM	**to**	**8:45 AM**	102	0	0	63	0	0	3	0	0	1	0	0	**169**	**0**	**0**	**169**
8:45 AM	**to**	**9:00 AM**	84	0	0	51	0	0	2	0	0	3	0	0	**140**	**0**	**0**	**140**
9:00 AM	**to**	**9:15 AM**	64	0	0	50	0	0	2	0	0	2	0	0	**118**	**0**	**0**	**118**
9:15 AM	**to**	**9:30 AM**	71	0	0	57	0	0	1	0	0	0	0	0	**129**	**0**	**0**	**129**
9:30 AM	**to**	**9:45 AM**	88	0	0	66	0	0	1	0	0	2	0	0	**157**	**0**	**0**	**157**
9:45 AM	**to**	**10:00 AM**	66	0	0	69	0	0	3	0	0	0	0	0	**138**	**0**	**0**	**138**
10:00 AM	**to**	**10:15 AM**	69	0	0	58	0	0	0	0	0	1	0	0	**128**	**0**	**0**	**128**
10:15 AM	**to**	**10:30 AM**	74	0	0	51	0	0	3	0	0	1	0	0	**129**	**0**	**0**	**129**
10:30 AM	**to**	**10:45 AM**	69	0	0	61	0	0	2	0	0	1	0	0	**133**	**0**	**0**	**133**
10:45 AM	**to**	**11:00 AM**	50	0	0	65	0	0	2	0	0	2	0	0	**119**	**0**	**0**	**119**
11:00 AM	**to**	**11:15 AM**	59	0	0	69	0	0	2	0	0	3	0	0	**133**	**0**	**0**	**133**
11:15 AM	**to**	**11:30 AM**	58	0	0	72	0	0	4	0	0	1	0	0	**135**	**0**	**0**	**135**
11:30 AM	**to**	**11:45 AM**	67	0	0	59	0	0	0	0	0	2	0	0	**128**	**0**	**0**	**128**
11:45 AM	**to**	**12:00 PM**	71	0	0	58	0	0	2	0	0	5	0	0	**136**	**0**	**0**	**136**
12:00 PM	**to**	**12:15 PM**	60	0	0	71	0	0	6	0	0	0	0	0	**137**	**0**	**0**	**137**
12:15 PM	**to**	**12:30 PM**	62	0	0	55	0	0	6	0	0	1	0	0	**124**	**0**	**0**	**124**
12:30 PM	**to**	**12:45 PM**	67	0	0	72	0	0	6	0	0	4	0	0	**149**	**0**	**0**	**149**
12:45 PM	**to**	**1:00 PM**	71	0	0	83	0	0	3	0	0	0	0	0	**157**	**0**	**0**	**157**
1:00 PM	**to**	**1:15 PM**	72	0	0	68	0	0	3	0	0	3	0	0	**146**	**0**	**0**	**146**
1:15 PM	**to**	**1:30 PM**	88	0	0	101	0	0	2	0	0	1	0	0	**192**	**0**	**0**	**192**
1:30 PM	**to**	**1:45 PM**	92	0	0	77	0	0	0	0	0	6	0	0	**175**	**0**	**0**	**175**
1:45 PM	**to**	**2:00 PM**	75	0	0	80	0	0	3	0	0	2	0	0	**160**	**0**	**0**	**160**
2:00 PM	**to**	**2:15 PM**	79	0	0	90	0	0	2	0	0	0	0	0	**171**	**0**	**0**	**171**
2:15 PM	**to**	**2:30 PM**	82	0	0	101	0	0	2	0	0	3	0	1	**188**	**0**	**1**	**189**
2:30 PM	**to**	**2:45 PM**	88	0	0	90	0	0	4	0	0	2	0	0	**184**	**0**	**0**	**184**
2:45 PM	**to**	**3:00 PM**	75	0	0	85	0	0	6	0	0	1	0	0	**167**	**0**	**0**	**167**
3:00 PM	**to**	**3:15 PM**	62	0	0	114	0	0	5	0	0	3	0	0	**184**	**0**	**0**	**184**
3:15 PM	**to**	**3:30 PM**	106	0	0	129	0	0	5	0	0	6	0	0	**246**	**0**	**0**	**246**
3:30 PM	**to**	**3:45 PM**	134	0	0	126	0	0	4	0	0	1	0	0	**265**	**0**	**0**	**265**
3:45 PM	**to**	**4:00 PM**	124	0	0	134	0	0	1	0	0	1	0	0	**260**	**0**	**0**	**260**
4:00 PM	**to**	**4:15 PM**	82	0	0	127	0	0	0	0	0	6	0	0	**215**	**0**	**0**	**215**
4:15 PM	**to**	**4:30 PM**	77	0	0	120	0	0	1	0	0	3	0	0	**201**	**0**	**0**	**201**
4:30 PM	**to**	**4:45 PM**	116	0	0	131	0	0	1	0	0	1	2	0	**249**	**2**	**0**	**251**
4:45 PM	**to**	**5:00 PM**	79	0	0	130	0	0	1	0	0	5	0	0	**215**	**0**	**0**	**215**
5:00 PM	**to**	**5:15 PM**	107	0	0	98	0	0	0	0	0	2	0	0	**207**	**0**	**0**	**207**
5:15 PM	**to**	**5:30 PM**	90	0	0	140	0	0	1	0	0	3	0	0	**234**	**0**	**0**	**234**
5:30 PM	**to**	**5:45 PM**	90	0	0	124	0	0	2	0	0	2	0	0	**218**	**0**	**0**	**218**
5:45 PM	**to**	**6:00 PM**	73	0	0	108	0	0	2	0	0	1	0	0	**184**	**0**	**0**	**184**
6:00 PM	**to**	**6:15 PM**	75	0	0	109	0	0	0	0	0	1	0	0	**185**	**0**	**0**	**185**
6:15 PM	**to**	**6:30 PM**	77	0	0	106	0	0	1	0	0	1	0	0	**185**	**0**	**0**	**185**
6:30 PM	**to**	**6:45 PM**	59	0	0	93	0	0	1	0	0	2	0	0	**155**	**0**	**0**	**155**
6:45 PM	**to**	**7:00 PM**	55	0	0	104	0	0	0	0	0	0	0	0	**159**	**0**	**0**	**159**
7:00 PM	**to**	**7:15 PM**	40	0	0	76	0	0	0	0	0	1	0	0	**117**	**0**	**0**	**117**
7:15 PM	**to**	**7:30 PM**	44	0	0	91	0	0	2	0	0	1	0	0	**138**	**0**	**0**	**138**
7:30 PM	**to**	**7:45 PM**	37	0	0	66	0	0	0	0	0	1	0	0	**104**	**0**	**0**	**104**
7:45 PM	**to**	**8:00 PM**	30	0	0	58	0	0	1	0	0	2	0	0	**91**	**0**	**0**	**91**
8:00 PM	**to**	**8:15 PM**	35	0	0	56	0	0	1	0	0	0	0	0	**92**	**0**	**0**	**92**
8:15 PM	**to**	**8:30 PM**	33	0	0	60	0	0	0	0	0	0	0	0	**93**	**0**	**0**	**93**
8:30 PM	**to**	**8:45 PM**	24	0	0	53	0	0	0	0	0	1	0	0	**78**	**0**	**0**	**78**
8:45 PM	**to**	**9:00 PM**	24	0	0	58	0	0	0	0	0	1	0	0	**83**	**0**	**0**	**83**

9:00 PM	to	9:15 PM	27	0	0	44	0	0	1	0	0	0	0	0	72	0	0	72
9:15 PM	to	9:30 PM	31	0	0	45	0	0	0	0	0	0	0	0	76	0	0	76
9:30 PM	to	9:45 PM	30	0	0	40	0	0	0	0	0	0	0	0	70	0	0	70
9:45 PM	to	10:00 PM	26	0	0	47	0	0	0	0	0	0	0	0	73	0	0	73
10:00 PM	to	10:15 PM	24	0	0	37	0	0	0	0	0	0	0	0	61	0	0	61
10:15 PM	to	10:30 PM	20	0	0	34	0	0	0	0	0	0	0	0	54	0	0	54
10:30 PM	to	10:45 PM	15	0	0	33	0	0	0	0	0	0	0	0	48	0	0	48
10:45 PM	to	11:00 PM	10	0	0	27	0	0	0	0	0	1	0	0	38	0	0	38
11:00 PM	to	11:15 PM	14	0	0	30	0	0	0	0	0	4	0	0	48	0	0	48
11:15 PM	to	11:30 PM	7	0	0	34	0	0	0	0	0	0	0	0	41	0	0	41
11:30 PM	to	11:45 PM	18	0	0	11	0	0	1	0	0	0	0	0	30	0	0	30
11:45 PM	to	12:00 AM	18	0	0	21	0	0	0	0	0	0	0	0	39	0	0	39
DAILY TOTALS			5434	0	1	5452	0	1	128	0	0	129	2	1	11143	2	3	11148

			Northbound			Southbound			Eastbound			Westbound			PH	PH	PH	PH	
PEAK HOUR			Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Pedestrians	ALL	PHF
7:15 AM	to	8:15 AM	513	0	1	331	0	0	8	0	0	18	0	0	870	0	1	871	0.89
3:15 PM	to	4:15 PM	446	0	0	516	0	0	10	0	0	14	0	0	986	0	0	986	0.93

Metro Traffic Data Inc.
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Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

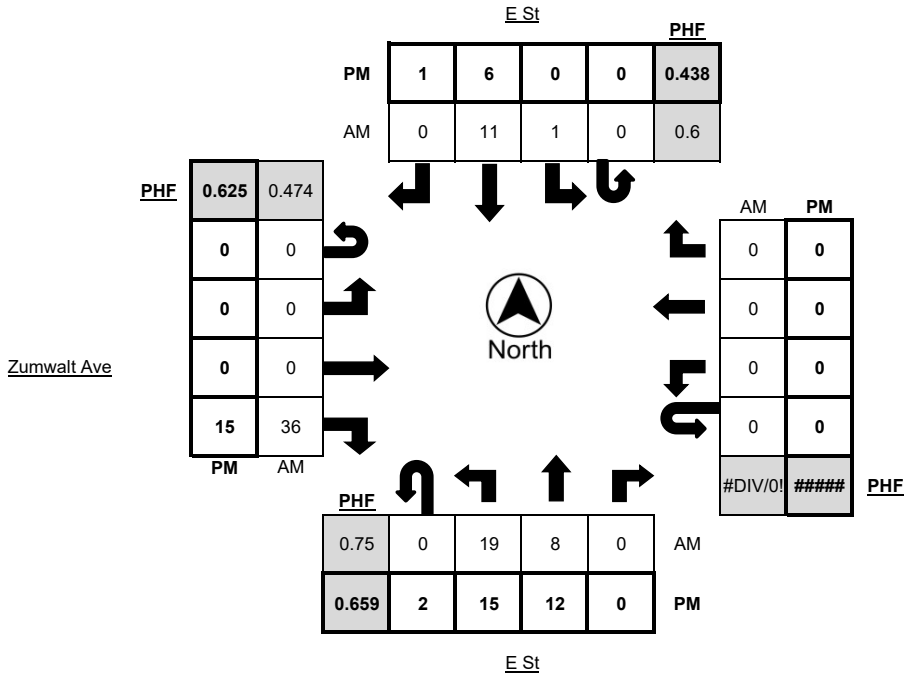
LOCATION	Zumwalt Ave @ E St	**LATITUDE**	36.2329
COUNTY	Tulare	**LONGITUDE**	-119.3579
COLLECTION DATE	Wednesday, February 5, 2025	**WEATHER**	Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	1	1	0	0	0	0	1	0	0	0	0	0	6	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	2	0	0	0	0	0	1	1	0	0	0	0	3	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	5	2	0	0	0	1	4	0	0	0	0	0	7	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	4	3	0	0	0	0	2	0	0	0	0	0	19	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	7	2	0	0	0	0	2	0	0	0	0	0	5	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	3	1	0	0	0	0	3	0	0	0	0	0	5	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	2	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
TOTAL	**0**	**24**	**14**	**0**	**0**	**0**	**1**	**14**	**1**	**0**	**0**	**1**	**0**	**45**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound					Southbound					Eastbound					Westbound				
Time	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	1	1	1	0	0	0	0	1	0	1	0	0	0	5	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	3	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	4	2	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
4:45 PM - 5:00 PM	1	2	2	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
5:00 PM - 5:15 PM	1	5	5	0	0	0	0	3	0	0	0	0	0	6	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	4	3	0	0	0	0	3	1	0	0	0	0	2	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	2	2	0	0	0	0	2	0	0	0	1	0	1	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	4	2	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
TOTAL	**3**	**25**	**19**	**0**	**0**	**0**	**0**	**10**	**1**	**1**	**0**	**1**	**0**	**23**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**	**U-Turn**	**Left**	**Thru**	**Right**	**Trucks**
7:30 AM - 8:30 AM	0	19	8	0	0	0	1	11	0	0	0	0	0	36	0	0	0	0	0	0
4:30 PM - 5:30 PM	2	15	12	0	0	0	0	6	1	0	0	0	0	15	0	0	0	0	0	0

	PHF	Trucks
AM	0.670	0.0%
PM	0.638	0.0%



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Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

LOCATION Zumwalt Ave @ E St

LATITUDE 36.2329

COUNTY Tulare

LONGITUDE -119.3579

COLLECTION DATE Wednesday, February 5, 2025

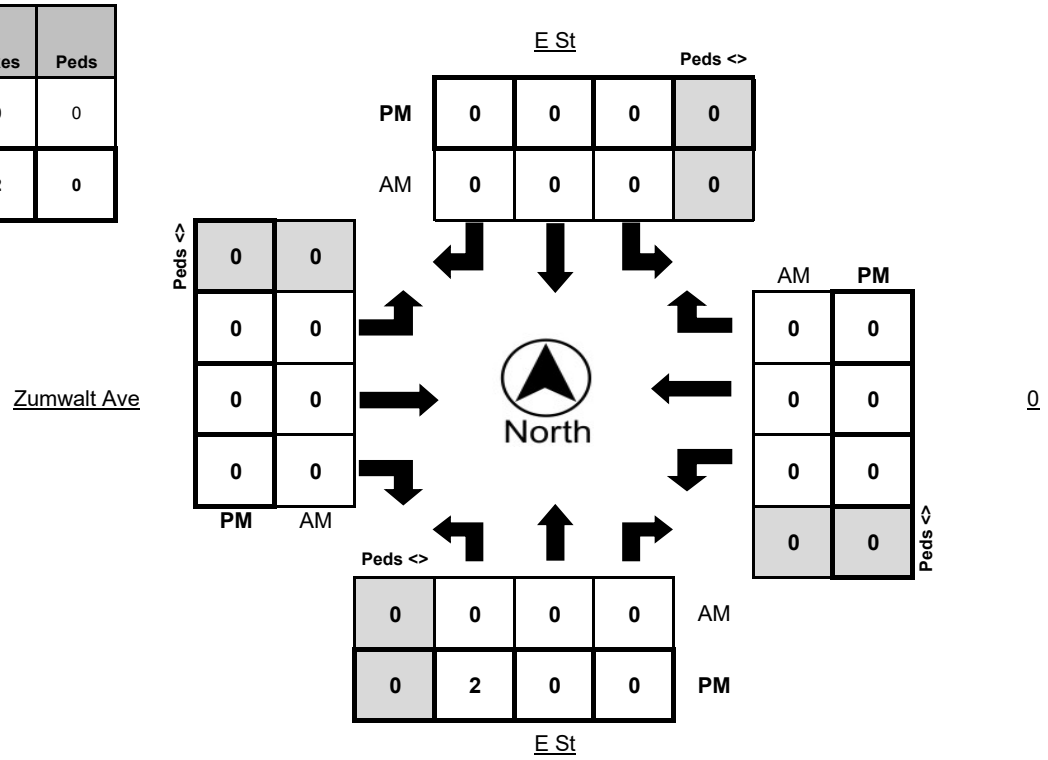
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**2**	**0**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

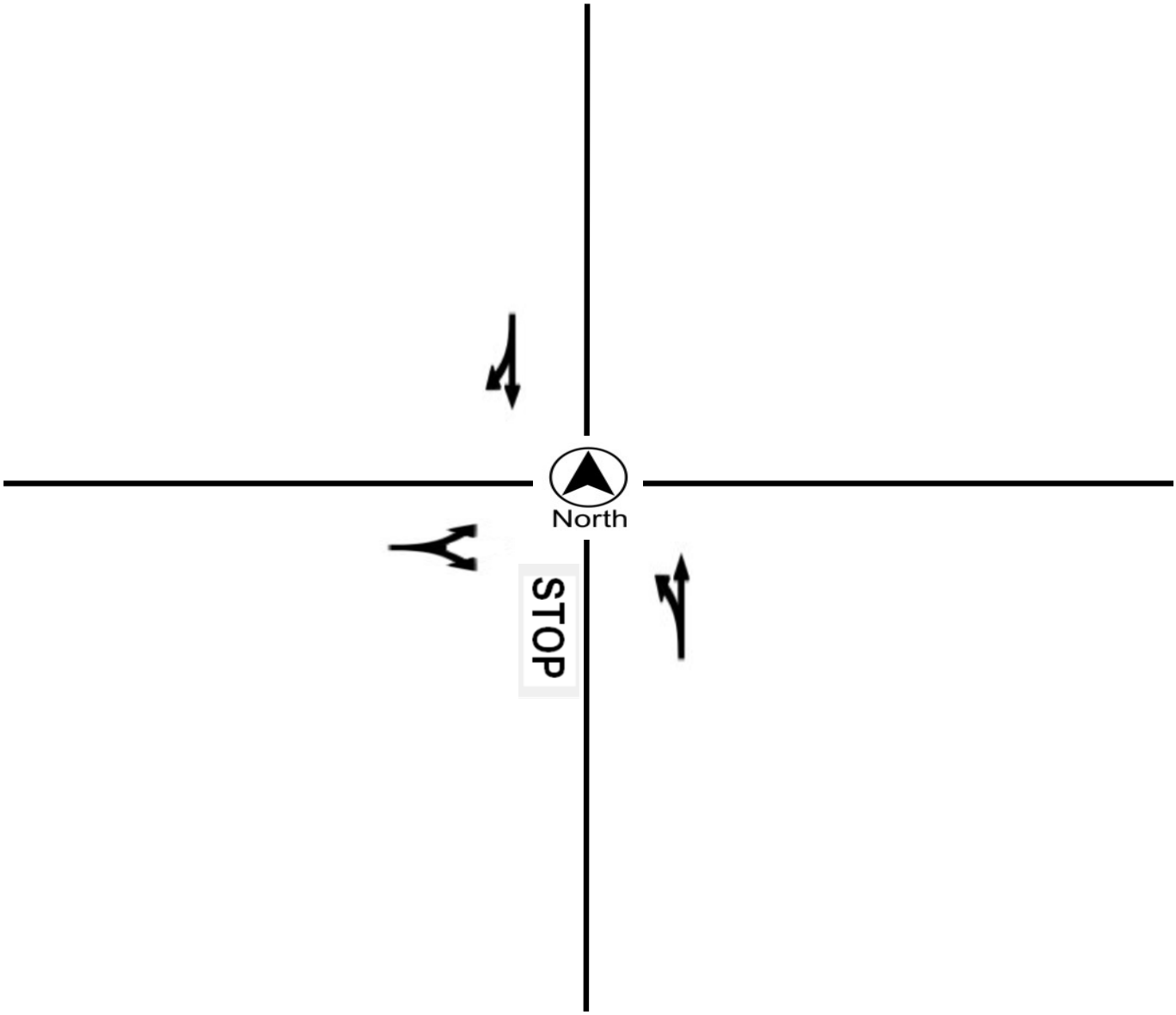
Turning Movement Report

Prepared For:

4 Creeks
324 S Santa Fe, Suite A
Visalia, CA 93292

LOCATION	Zumwalt Ave @ E St	**N/S STREET**	E St / E St
COUNTY	Tulare	**E/W STREET**	Zumwalt Ave
COLLECTION DATE	Wednesday, February 5, 2025	**WEATHER**	Clear
CYCLE TIME	N/A	**CONTROL TYPE**	One-Way Stop

COMMENTS



Metro Traffic Data Inc.

310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Multi-Modal Approach Counts

Prepared For:
4-Creeks, Inc.
324 S Santa Fe St
Visalia, CA 93292

LOCATION Zumwalt Ave @ E St

COUNTY Tulare

COLLECTION DATE Wednesday, February 5, 2025

LATITUDE 36.232915

LONGITUDE -119.3578831

WEATHER Clear

			Northbound			Southbound			Eastbound			Westbound			TOTALS	TOTALS	TOTALS	TOTALS
Time			Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Pedestrians	ALL
12:00 AM	to	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	to	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	to	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	to	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	to	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	to	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	to	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	to	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	to	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	to	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	to	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	to	3:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
3:00 AM	to	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	to	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	to	3:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1
3:45 AM	to	4:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:00 AM	to	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	to	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	to	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	to	5:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:00 AM	to	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	to	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	to	5:45 AM	1	0	0	0	0	0	1	0	0	0	0	0	2	0	0	2
5:45 AM	to	6:00 AM	0	0	0	1	0	0	3	0	0	0	0	0	4	0	0	4
6:00 AM	to	6:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2
6:15 AM	to	6:30 AM	2	0	0	1	0	0	0	0	0	0	0	0	3	0	0	3
6:30 AM	to	6:45 AM	3	0	0	1	0	0	1	0	0	0	0	0	5	0	0	5
6:45 AM	to	7:00 AM	2	0	0	1	0	0	0	0	0	0	0	0	3	0	0	3
7:00 AM	to	7:15 AM	2	0	0	1	0	0	6	0	0	0	0	0	9	0	0	9
7:15 AM	to	7:30 AM	2	0	0	2	0	0	3	0	0	0	0	0	7	0	0	7
7:30 AM	to	7:45 AM	7	0	0	5	0	0	7	0	0	0	0	0	19	0	0	19
7:45 AM	to	8:00 AM	7	0	0	2	0	0	19	0	0	0	0	0	28	0	0	28
8:00 AM	to	8:15 AM	9	0	0	2	0	0	5	0	0	0	0	0	16	0	0	16

8:15 AM	**to**	**8:30 AM**	4	0	0	3	0	0	5	0	0	0	0	0	**12**	**0**	**0**	**12**
8:30 AM	**to**	**8:45 AM**	6	0	0	1	0	0	0	0	0	0	0	0	**7**	**0**	**0**	**7**
8:45 AM	**to**	**9:00 AM**	1	0	0	0	0	0	1	0	0	0	0	0	**2**	**0**	**0**	**2**
9:00 AM	**to**	**9:15 AM**	0	0	0	1	0	0	0	0	0	0	0	0	**1**	**0**	**0**	**1**
9:15 AM	**to**	**9:30 AM**	0	0	0	0	0	0	1	0	0	0	0	0	**1**	**0**	**0**	**1**
9:30 AM	**to**	**9:45 AM**	3	0	0	1	0	0	0	0	0	0	0	0	**4**	**0**	**0**	**4**
9:45 AM	**to**	**10:00 AM**	1	0	0	0	0	0	1	0	0	0	0	0	**2**	**0**	**0**	**2**
10:00 AM	**to**	**10:15 AM**	4	0	0	3	0	0	3	0	0	0	0	0	**10**	**0**	**0**	**10**
10:15 AM	**to**	**10:30 AM**	3	0	0	1	0	0	0	0	0	0	0	0	**4**	**0**	**0**	**4**
10:30 AM	**to**	**10:45 AM**	2	0	0	0	0	0	2	0	0	0	0	0	**4**	**0**	**0**	**4**
10:45 AM	**to**	**11:00 AM**	1	0	0	1	0	0	2	0	0	0	0	0	**4**	**0**	**0**	**4**
11:00 AM	**to**	**11:15 AM**	6	0	0	2	0	0	2	0	0	0	0	0	**10**	**0**	**0**	**10**
11:15 AM	**to**	**11:30 AM**	6	0	0	3	0	0	3	0	0	0	0	0	**12**	**0**	**0**	**12**
11:30 AM	**to**	**11:45 AM**	6	0	0	1	0	0	2	0	0	0	0	0	**9**	**0**	**0**	**9**
11:45 AM	**to**	**12:00 PM**	1	0	0	1	0	0	1	0	0	0	0	0	**3**	**0**	**0**	**3**
12:00 PM	**to**	**12:15 PM**	2	0	0	2	0	0	4	0	0	0	0	0	**8**	**0**	**0**	**8**
12:15 PM	**to**	**12:30 PM**	2	0	0	1	0	0	2	0	0	0	0	0	**5**	**0**	**0**	**5**
12:30 PM	**to**	**12:45 PM**	7	0	0	4	0	0	1	0	0	0	0	0	**12**	**0**	**0**	**12**
12:45 PM	**to**	**1:00 PM**	3	0	0	3	0	0	1	0	0	0	0	0	**7**	**0**	**0**	**7**
1:00 PM	**to**	**1:15 PM**	3	0	0	2	0	1	2	0	0	0	0	0	**7**	**0**	**1**	**8**
1:15 PM	**to**	**1:30 PM**	3	1	0	1	0	0	2	0	0	0	0	0	**6**	**1**	**0**	**7**
1:30 PM	**to**	**1:45 PM**	8	0	0	1	0	0	2	0	0	0	0	0	**11**	**0**	**0**	**11**
1:45 PM	**to**	**2:00 PM**	4	0	0	0	1	0	1	0	0	0	0	0	**5**	**1**	**0**	**6**
2:00 PM	**to**	**2:15 PM**	4	0	0	0	0	0	2	0	0	0	0	0	**6**	**0**	**0**	**6**
2:15 PM	**to**	**2:30 PM**	2	0	0	0	0	0	6	0	0	0	0	0	**8**	**0**	**0**	**8**
2:30 PM	**to**	**2:45 PM**	3	0	0	2	0	0	1	0	0	0	0	0	**6**	**0**	**0**	**6**
2:45 PM	**to**	**3:00 PM**	3	0	0	3	0	0	2	0	0	0	0	0	**8**	**0**	**0**	**8**
3:00 PM	**to**	**3:15 PM**	5	0	0	2	0	0	3	0	0	0	0	0	**10**	**0**	**0**	**10**
3:15 PM	**to**	**3:30 PM**	1	0	0	3	0	0	4	0	0	0	0	0	**8**	**0**	**0**	**8**
3:30 PM	**to**	**3:45 PM**	3	0	0	2	0	0	7	0	0	0	0	0	**12**	**0**	**0**	**12**
3:45 PM	**to**	**4:00 PM**	6	0	0	6	0	0	4	0	0	0	0	0	**16**	**0**	**0**	**16**
4:00 PM	**to**	**4:15 PM**	3	0	0	1	0	0	5	0	0	0	0	0	**9**	**0**	**0**	**9**
4:15 PM	**to**	**4:30 PM**	5	0	0	0	0	0	1	0	0	0	0	0	**6**	**0**	**0**	**6**
4:30 PM	**to**	**4:45 PM**	6	2	0	0	0	0	4	0	0	0	0	0	**10**	**2**	**0**	**12**
4:45 PM	**to**	**5:00 PM**	5	0	0	0	0	0	3	0	0	0	0	0	**8**	**0**	**0**	**8**
5:00 PM	**to**	**5:15 PM**	11	0	0	3	0	0	6	0	0	0	0	0	**20**	**0**	**0**	**20**
5:15 PM	**to**	**5:30 PM**	7	0	0	4	0	5	2	0	0	0	0	0	**13**	**0**	**5**	**18**
5:30 PM	**to**	**5:45 PM**	4	0	6	2	0	0	2	0	0	0	0	0	**8**	**0**	**6**	**14**
5:45 PM	**to**	**6:00 PM**	6	0	0	1	0	0	1	0	0	0	0	0	**8**	**0**	**0**	**8**
6:00 PM	**to**	**6:15 PM**	1	0	0	1	0	0	0	0	0	0	0	0	**2**	**0**	**0**	**2**
6:15 PM	**to**	**6:30 PM**	3	0	0	1	0	0	2	0	0	0	0	0	**6**	**0**	**0**	**6**
6:30 PM	**to**	**6:45 PM**	1	0	0	1	0	0	3	0	0	0	0	0	**5**	**0**	**0**	**5**
6:45 PM	**to**	**7:00 PM**	1	0	0	2	0	0	0	0	0	0	0	0	**3**	**0**	**0**	**3**
7:00 PM	**to**	**7:15 PM**	3	0	0	0	0	0	0	0	0	0	0	0	**3**	**0**	**0**	**3**
7:15 PM	**to**	**7:30 PM**	2	0	0	0	0	0	0	0	0	0	0	0	**2**	**0**	**0**	**2**
7:30 PM	**to**	**7:45 PM**	1	0	0	1	0	0	0	0	0	0	0	0	**2**	**0**	**0**	**2**
7:45 PM	**to**	**8:00 PM**	0	0	0	0	0	0	2	0	0	0	0	0	**2**	**0**	**0**	**2**
8:00 PM	**to**	**8:15 PM**	0	0	0	0	0	0	2	0	0	0	0	0	**2**	**0**	**0**	**2**
8:15 PM	**to**	**8:30 PM**	1	0	0	0	0	0	0	0	0	0	0	0	**1**	**0**	**0**	**1**
8:30 PM	**to**	**8:45 PM**	1	0	0	1	0	0	0	0	0	0	0	0	**2**	**0**	**0**	**2**
8:45 PM	**to**	**9:00 PM**	2	0	0	0	0	0	1	0	0	0	0	0	**3**	**0**	**0**	**3**

9:00 PM	to	9:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9:15 PM	to	9:30 PM	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
9:30 PM	to	9:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9:45 PM	to	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	to	10:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1
10:15 PM	to	10:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1
10:30 PM	to	10:45 PM	1	0	0	0	0	0	1	0	0	0	0	0	2	0	0	2
10:45 PM	to	11:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
11:00 PM	to	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	to	11:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1
11:30 PM	to	11:45 PM	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
11:45 PM	to	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY TOTALS			213	3	6	85	1	6	151	0	0	0	0	0	449	4	12	465

			Northbound			Southbound			Eastbound			Westbound			PH	PH	PH	PH	
PEAK HOUR			Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Peds	Vehicles	Bicycles	Pedestrians	ALL	PHF
7:30 AM	to	8:30 AM	27	0	0	12	0	0	36	0	0	0	0	0	75	0	0	75	0.67
4:45 PM	to	5:45 PM	27	0	6	9	0	5	13	0	0	0	0	0	49	0	11	60	0.75

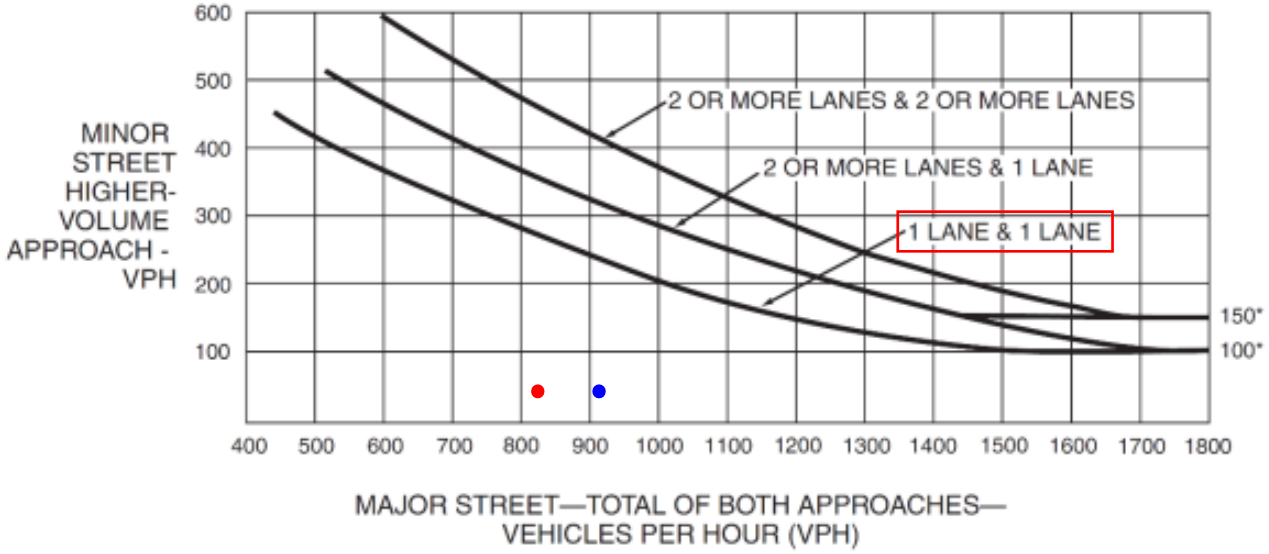
Appendix C - Signal Warrant 3 Worksheets

LEGEND:

- AM Peak Hour
- PM Peak Hour

EXISTING CONDITIONS

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

3) N. WEST ST. / W. GAIL AVE.

PREPARED BY:

4CREEKS

324 S. SANTA FE, STE. A
VISALIA, CA 93292
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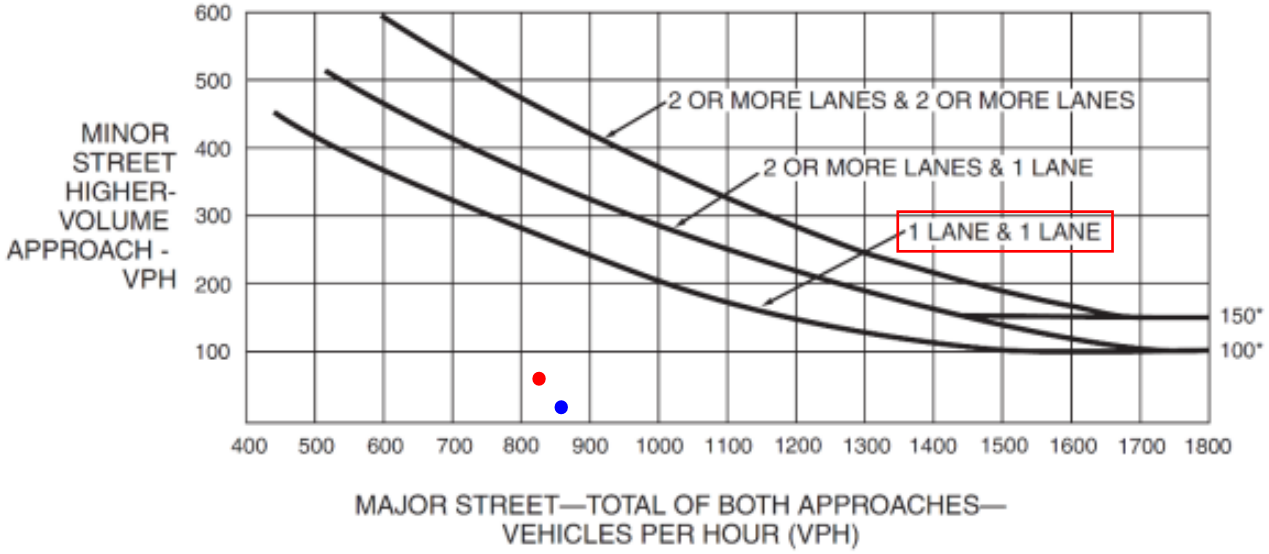
\\Server\projects\Projects\2024\240767\240767\ACAD\EXHIBITS\240767_TIA Exhibits.dwg

LEGEND:

- AM Peak Hour
- PM Peak Hour

EXISTING PLUS PROJECT CONDITIONS

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

3) N. WEST ST. / W. GAIL AVE.

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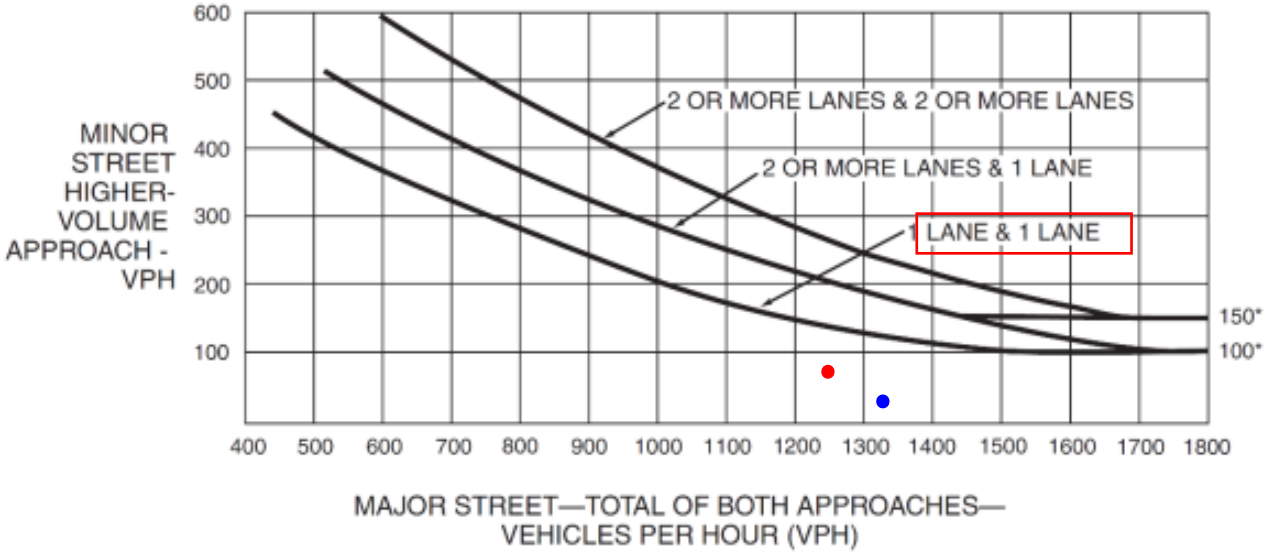
LEGEND:
- AM Peak Hour
- PM Peak Hour

CUMULATIVE (YEAR 2046) WITHOUT PROJECT CONDITIONS

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

3) N. WEST ST. / W. GAIL AVE.

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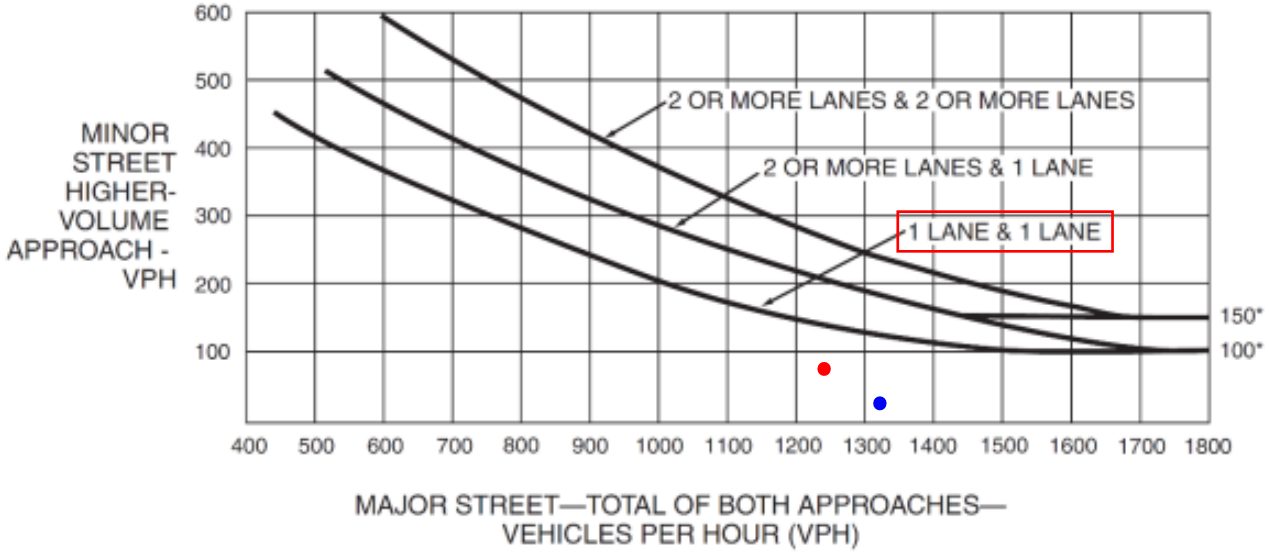
LEGEND:
- AM Peak Hour
- PM Peak Hour

CUMULATIVE (YEAR 2046) PLUS PROJECT CONDITIONS

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

3) N. WEST ST. / W. GAIL AVE.

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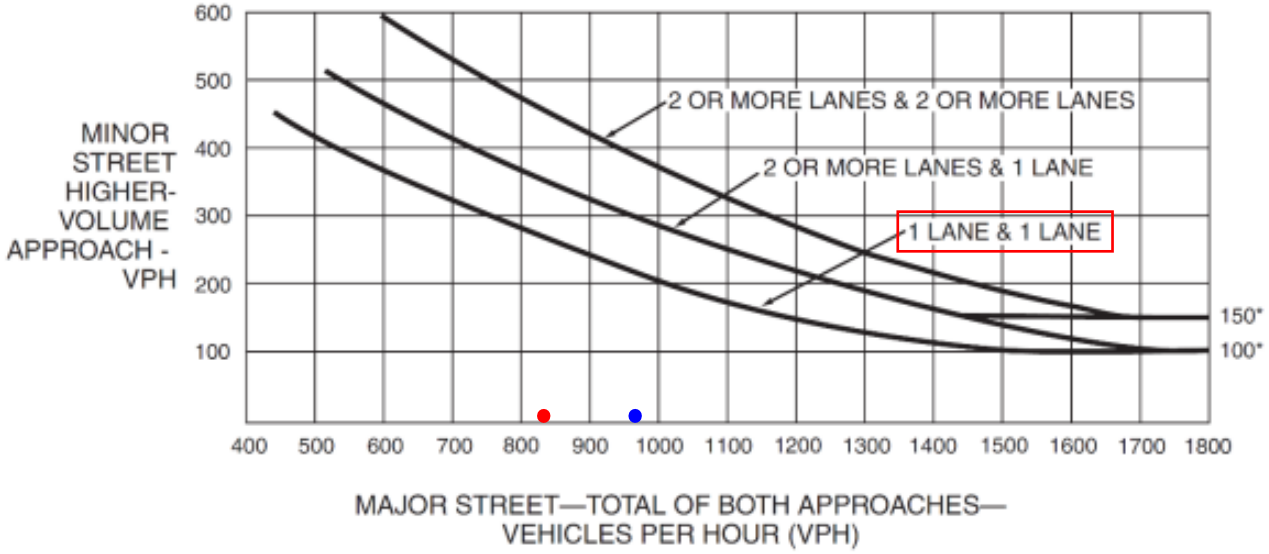
LEGEND:

- AM Peak Hour
- PM Peak Hour

EXISTING CONDITIONS

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

4) N. WEST ST. / ZUMWALT AVE.

PREPARED BY:

4CREEKS

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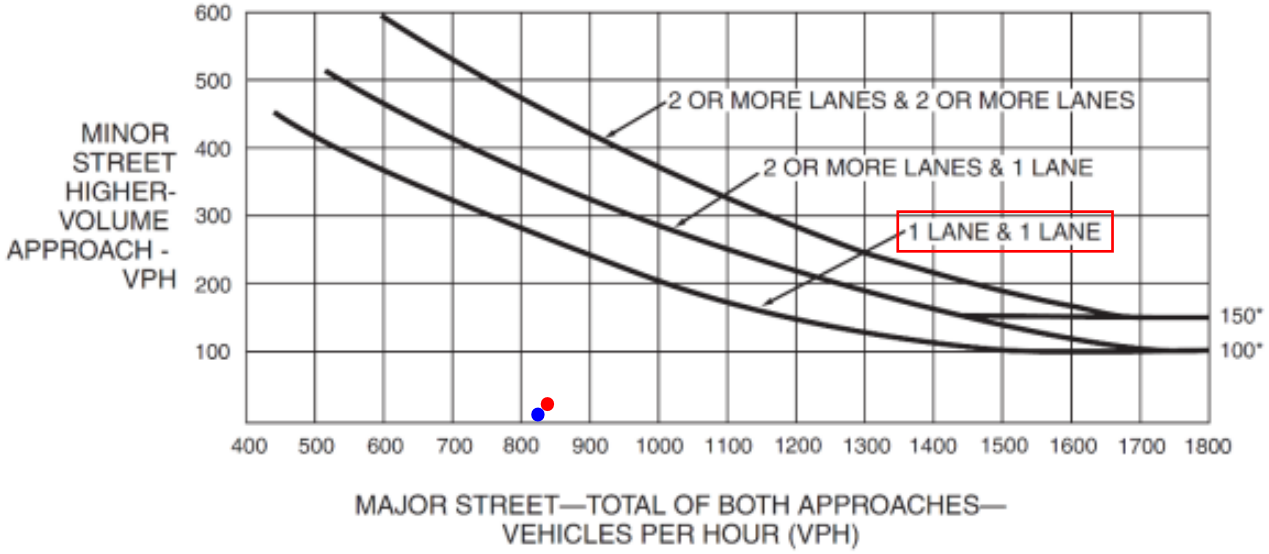
LEGEND:

- AM Peak Hour
- PM Peak Hour

EXISTING PLUS PROJECT CONDITIONS

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

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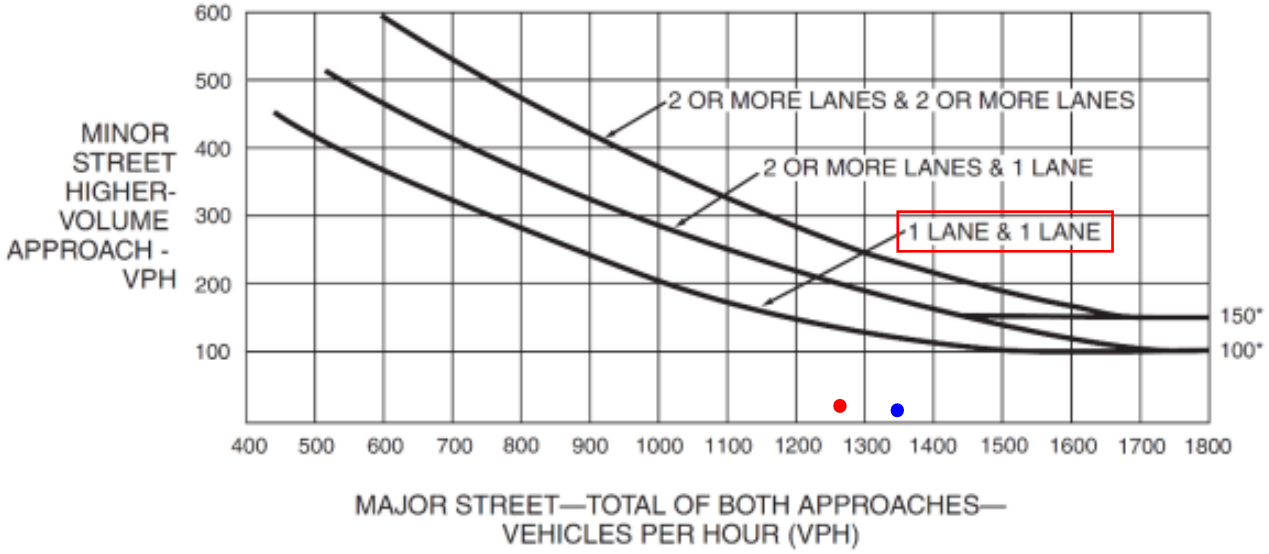
LEGEND:
- AM Peak Hour
- PM Peak Hour

CUMULATIVE (YEAR 2046) WITHOUT PROJECT CONDITIONS

Figure 4C-3. Warrant 3, Peak Hour



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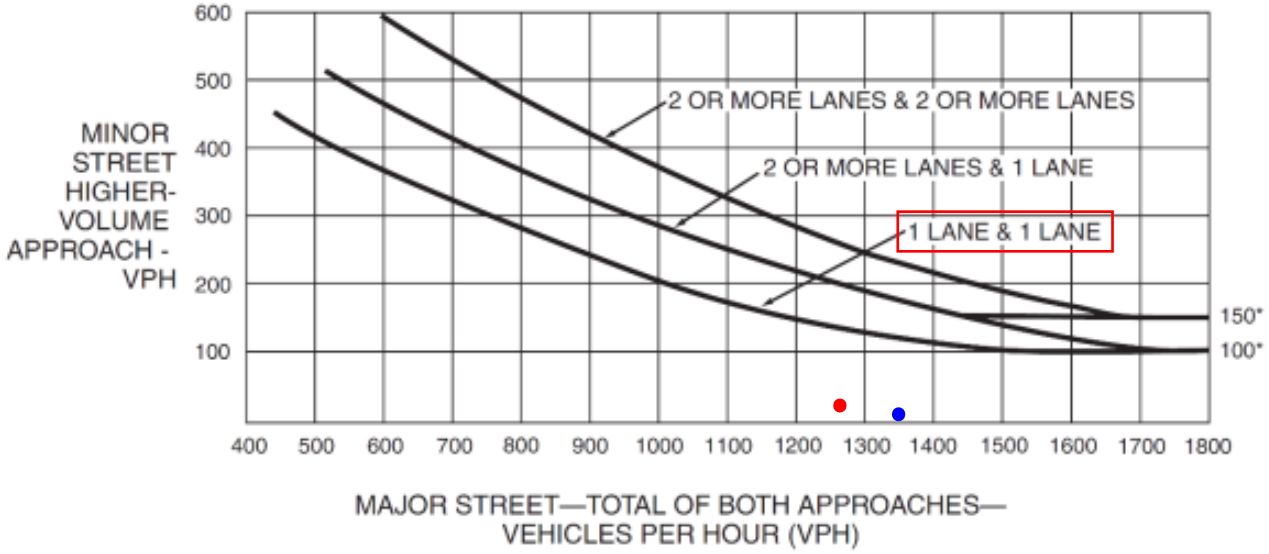
LEGEND:
- AM Peak Hour
- PM Peak Hour

CUMULATIVE (YEAR 2046) PLUS PROJECT CONDITIONS

Figure 4C-3. Warrant 3, Peak Hour



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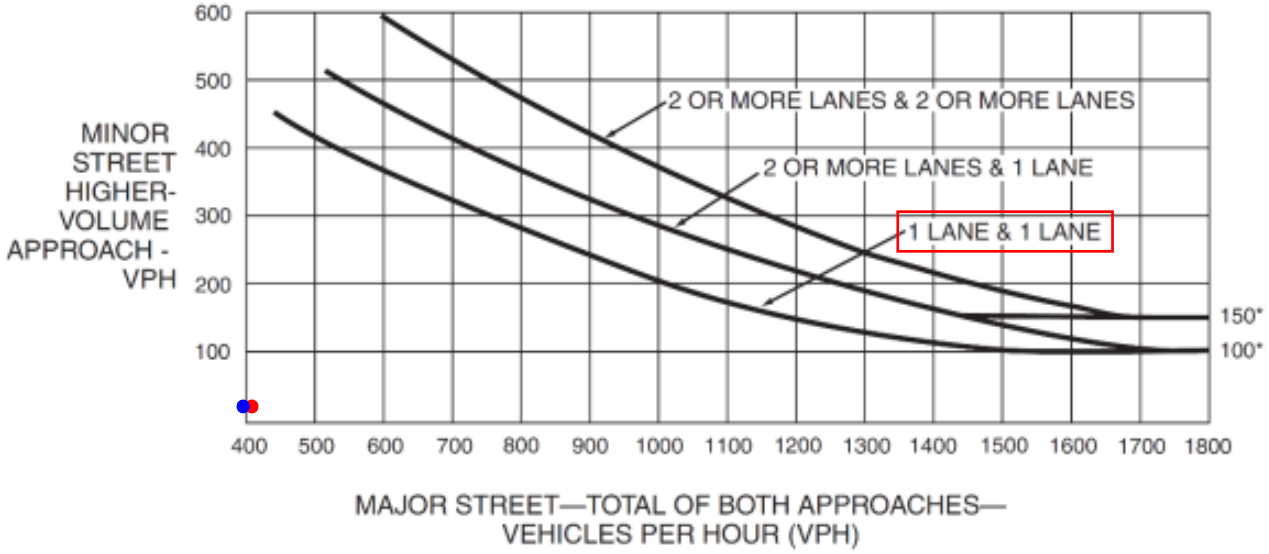
LEGEND:

- AM Peak Hour
- PM Peak Hour

EXISTING CONDITIONS

Figure 4C-3. Warrant 3, Peak Hour



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5) N. E ST. / ZUMWALT AVE.

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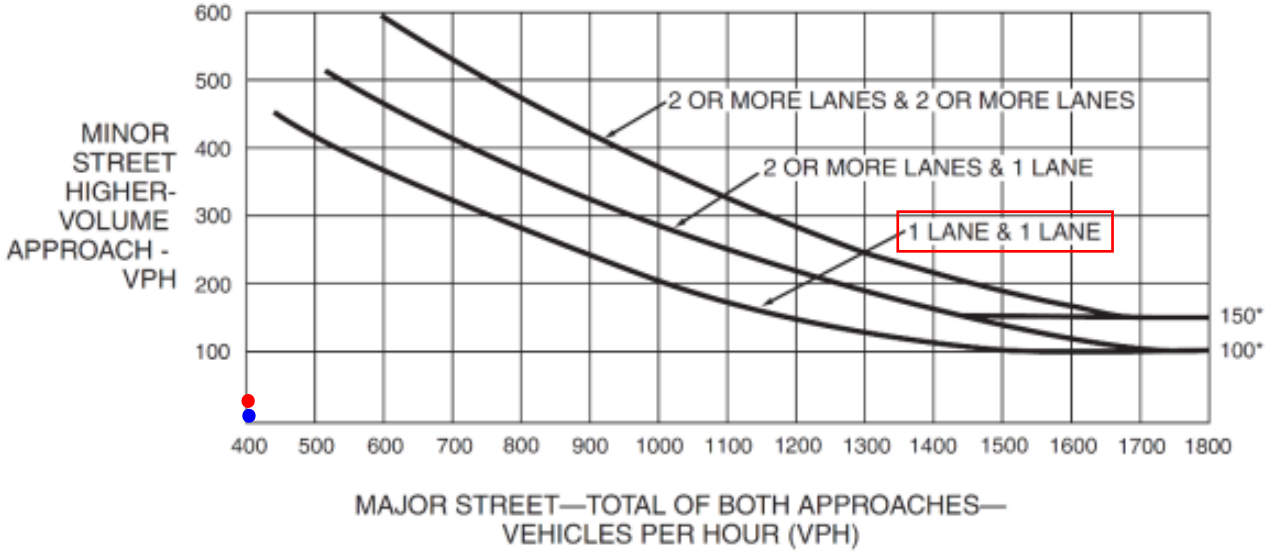
LEGEND:

- AM Peak Hour
- PM Peak Hour

EXISTING PLUS PROJECT CONDITIONS

Figure 4C-3. Warrant 3, Peak Hour



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5) N. E ST. / ZUMWALT AVE.

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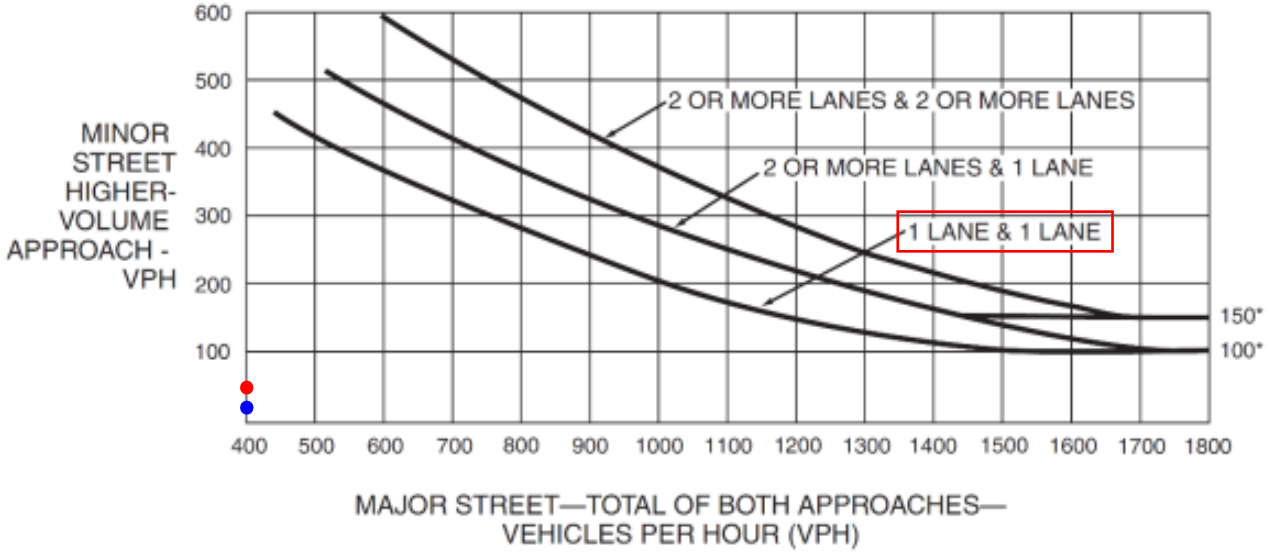
LEGEND:
- AM Peak Hour
- PM Peak Hour

CUMULATIVE (YEAR 2046) WITHOUT PROJECT CONDITIONS

Figure 4C-3. Warrant 3, Peak Hour



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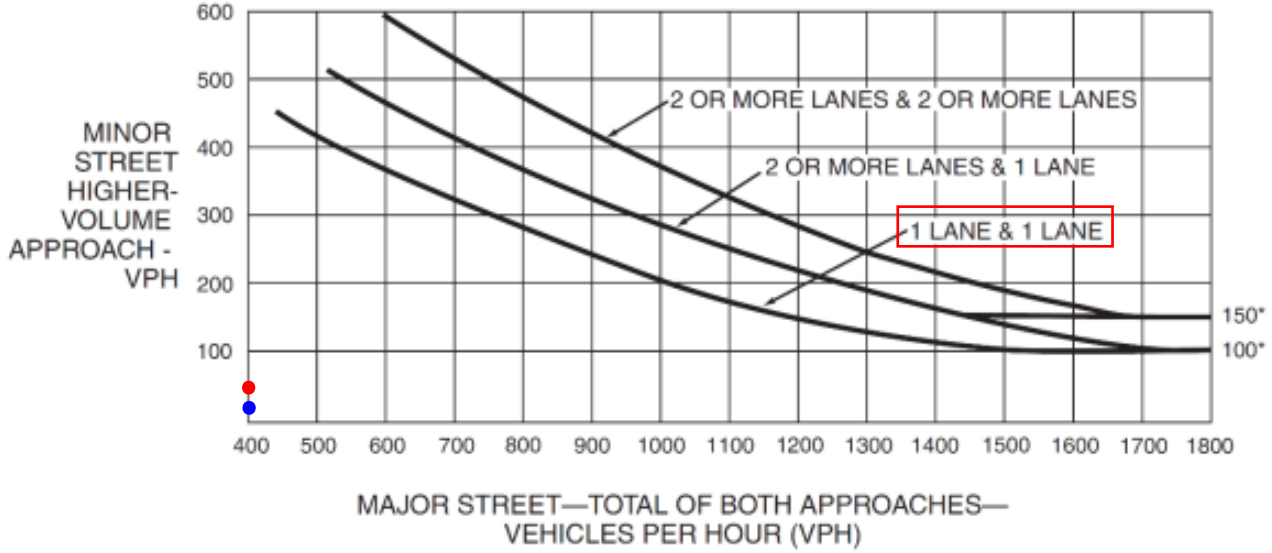
LEGEND:
- AM Peak Hour
- PM Peak Hour

CUMULATIVE (YEAR 2046) PLUS PROJECT CONDITIONS

Figure 4C-3. Warrant 3, Peak Hour



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HCM 7th Signalized Intersection Summary

1: N. E St./N. E St. & W. Prosperity Ave. /W Prosperity Ave.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	241	13	37	183	88	33	163	33	183	172	129
Future Volume (veh/h)	56	241	13	37	183	88	33	163	33	183	172	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.95	0.99		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	81	349	19	54	265	128	48	236	48	265	249	187
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	323	521	28	267	557	466	494	797	162	626	522	392
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	993	1765	96	1008	1885	1579	956	1519	309	1101	994	747
Grp Volume(v), veh/h	81	0	368	54	265	128	48	0	284	265	0	436
Grp Sat Flow(s),veh/h/ln	993	0	1861	1008	1885	1579	956	0	1828	1101	0	1741
Q Serve(g_s), s	3.6	0.0	8.7	2.5	5.8	3.1	1.7	0.0	4.4	8.9	0.0	7.9
Cycle Q Clear(g_c), s	9.4	0.0	8.7	11.2	5.8	3.1	9.6	0.0	4.4	13.3	0.0	7.9
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.17	1.00		0.43
Lane Grp Cap(c), veh/h	323	0	550	267	557	466	494	0	959	626	0	913
V/C Ratio(X)	0.25	0.00	0.67	0.20	0.48	0.27	0.10	0.00	0.30	0.42	0.00	0.48
Avail Cap(c_a), veh/h	387	0	670	332	679	568	494	0	959	626	0	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.97	0.97	0.97	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.3	0.0	15.5	20.4	14.4	13.5	10.6	0.0	6.7	10.4	0.0	7.5
Incr Delay (d2), s/veh	0.4	0.0	1.9	0.4	0.6	0.3	0.4	0.0	0.8	2.1	0.0	1.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	3.2	0.5	2.1	0.9	0.3	0.0	1.3	1.9	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.7	0.0	17.4	20.7	15.1	13.8	11.0	0.0	7.5	12.5	0.0	9.3
LnGrp LOS	B		B	C	B	B	B		A	B		A
Approach Vol, veh/h		449			447			332			701	
Approach Delay, s/veh		17.6			15.4			8.0			10.5	
Approach LOS		B			B			A			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		30.7		19.3		30.7		19.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		23.0		18.0		23.0		18.0				
Max Q Clear Time (g_c+I1), s		11.6		11.4		15.3		13.2				
Green Ext Time (p_c), s		1.3		1.3		2.4		0.9				

Intersection Summary			
HCM 7th Control Delay, s/veh		12.9	
HCM 7th LOS		B	

HCM 7th Signalized Intersection Summary
2: N. J St./N. J St. & W Prosperity Ave./W. Prosperity Ave.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	439	101	20	288	3	75	123	27	6	147	119
Future Volume (veh/h)	107	439	101	20	288	3	75	123	27	6	147	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	462	106	21	303	3	79	129	28	6	155	125
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	681	159	114	977	10	646	1433	303	733	943	704
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	371	2204	513	80	3163	31	1099	2918	617	1228	1920	1434
Grp Volume(v), veh/h	349	0	332	178	0	149	79	77	80	6	143	137
Grp Sat Flow(s),veh/h/ln	1479	0	1610	1748	0	1526	1099	1777	1758	1228	1777	1576
Q Serve(g_s), s	6.3	0.0	8.1	0.0	0.0	3.4	1.9	1.0	1.1	0.1	2.0	2.2
Cycle Q Clear(g_c), s	9.7	0.0	8.1	8.1	0.0	3.4	4.1	1.0	1.1	1.2	2.0	2.2
Prop In Lane	0.32		0.32	0.12		0.02	1.00		0.35	1.00		0.91
Lane Grp Cap(c), veh/h	563	0	497	629	0	471	646	873	863	733	873	774
V/C Ratio(X)	0.62	0.00	0.67	0.28	0.00	0.32	0.12	0.09	0.09	0.01	0.16	0.18
Avail Cap(c_a), veh/h	700	0	644	778	0	610	646	873	863	733	873	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.00	0.78	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	0.0	13.5	11.9	0.0	11.9	7.5	6.1	6.1	6.4	6.3	6.4
Incr Delay (d2), s/veh	0.9	0.0	1.4	0.2	0.0	0.4	0.4	0.2	0.2	0.0	0.4	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	2.4	1.1	0.0	0.9	0.4	0.3	0.3	0.0	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.9	0.0	14.9	12.1	0.0	12.3	7.9	6.3	6.3	6.4	6.7	6.9
LnGrp LOS	B		B	B		B	A	A	A	A	A	A
Approach Vol, veh/h		681			327			236			286	
Approach Delay, s/veh		14.9			12.2			6.8			6.8	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.6		18.4		26.6		18.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		6.1		11.7		4.2		10.1				
Green Ext Time (p_c), s		0.8		2.2		1.2		1.1				

Intersection Summary			
HCM 7th Control Delay, s/veh		11.6	
HCM 7th LOS		B	

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	39	467	61	42	258
Future Vol, veh/h	18	39	467	61	42	258
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	21	46	556	73	50	307

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	999	592	0	0	629	0
Stage 1	592	-	-	-	-	-
Stage 2	407	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	271	508	-	-	958	-
Stage 1	555	-	-	-	-	-
Stage 2	674	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	254	508	-	-	958	-
Mov Cap-2 Maneuver	254	-	-	-	-	-
Stage 1	555	-	-	-	-	-
Stage 2	632	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	16.31	0	1.25
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	386	252	-
HCM Lane V/C Ratio	-	-	0.176	0.052	-
HCM Ctrl Dly (s/v)	-	-	16.3	9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.2	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	3	3	1	0	17	0	508	5	23	305	3
Future Vol, veh/h	2	3	3	1	0	17	0	508	5	23	305	3
Conflicting Peds, #/hr	1	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	3	3	1	0	19	0	571	6	26	343	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	968	972	345	971	971	575	346	0	0	576	0	0
Stage 1	396	396	-	574	574	-	-	-	-	-	-	-
Stage 2	572	576	-	397	398	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	233	252	698	232	253	518	1213	-	-	997	-	-
Stage 1	629	604	-	504	503	-	-	-	-	-	-	-
Stage 2	505	502	-	629	603	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	217	244	697	221	245	517	1213	-	-	997	-	-
Mov Cap-2 Maneuver	217	244	-	221	245	-	-	-	-	-	-	-
Stage 1	609	585	-	504	503	-	-	-	-	-	-	-
Stage 2	486	502	-	601	584	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	16.95	12.81	0	0.61
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1213	-	-	310	481	125	-	-
HCM Lane V/C Ratio	-	-	-	0.029	0.042	0.026	-	-
HCM Ctrl Dly (s/v)	0	-	-	17	12.8	8.7	0	-
HCM Lane LOS	A	-	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	36	19	8	11	0
Future Vol, veh/h	0	36	19	8	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	54	28	12	16	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	85	16	16	0	-	0
Stage 1	16	-	-	-	-	-
Stage 2	69	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	921	1068	1614	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	959	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	905	1068	1614	-	-	-
Mov Cap-2 Maneuver	905	-	-	-	-	-
Stage 1	994	-	-	-	-	-
Stage 2	959	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.55	5.12	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1267	-	1068	-	-
HCM Lane V/C Ratio	0.018	-	0.05	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Queues

1: N. E St./N. E St. & W. Prosperity Ave. /W Prosperity Ave.

03/06/2025

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	81	368	54	265	128	48	284	265	436
v/c Ratio	0.29	0.68	0.27	0.49	0.24	0.11	0.29	0.46	0.45
Control Delay (s/veh)	15.3	21.6	16.0	17.1	4.0	8.1	7.8	11.8	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.3	21.6	16.0	17.1	4.0	8.1	7.8	11.8	8.2
Queue Length 50th (ft)	18	91	12	62	0	6	37	43	52
Queue Length 95th (ft)	30	102	23	75	13	17	59	72	77
Internal Link Dist (ft)		803		1612			324		1250
Turn Bay Length (ft)	150		140		140	150		150	
Base Capacity (vph)	351	674	248	677	640	447	982	580	966
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.55	0.22	0.39	0.20	0.11	0.29	0.46	0.45

Intersection Summary
Description: N E St & W Prosperity Ave

Queues

2: N. J St./N. J St. & W Prosperity Ave./W. Prosperity Ave.

03/06/2025

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	681	327	79	157	6	280
v/c Ratio	0.68	0.30	0.16	0.10	0.01	0.18
Control Delay (s/veh)	15.0	11.0	9.5	6.9	8.2	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.0	11.0	9.5	6.9	8.2	5.1
Queue Length 50th (ft)	68	31	11	8	1	11
Queue Length 95th (ft)	102	48	33	23	6	30
Internal Link Dist (ft)	1612	871		556		1340
Turn Bay Length (ft)			200		190	
Base Capacity (vph)	1176	1269	498	1601	561	1577
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.26	0.16	0.10	0.01	0.18

Intersection Summary
Description: N J St & W Prosperity Ave

HCM 7th Signalized Intersection Summary

1: N. E St./N. E St. & W. Prosperity Ave. /W Prosperity Ave.

03/06/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	268	17	49	395	49	18	18	34	52	24	12
Future Volume (veh/h)	3	268	17	49	395	49	18	18	34	52	24	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.97	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	3	288	18	53	425	53	19	19	37	56	26	13
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	249	528	33	337	568	462	832	284	553	811	591	296
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	911	1753	110	1080	1885	1534	1379	570	1109	1352	1186	593
Grp Volume(v), veh/h	3	0	306	53	425	53	19	0	56	56	0	39
Grp Sat Flow(s),veh/h/ln	911	0	1862	1080	1885	1534	1379	0	1679	1352	0	1778
Q Serve(g_s), s	0.1	0.0	6.2	1.9	9.1	1.1	0.3	0.0	0.8	1.0	0.0	0.5
Cycle Q Clear(g_c), s	9.3	0.0	6.2	8.1	9.1	1.1	0.8	0.0	0.8	1.8	0.0	0.5
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.66	1.00		0.33
Lane Grp Cap(c), veh/h	249	0	561	337	568	462	832	0	837	811	0	887
V/C Ratio(X)	0.01	0.00	0.55	0.16	0.75	0.11	0.02	0.00	0.07	0.07	0.00	0.04
Avail Cap(c_a), veh/h	339	0	745	444	754	614	832	0	837	811	0	887
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.86	0.86	0.86	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	13.1	16.5	14.2	11.4	6.0	0.0	5.9	6.3	0.0	5.8
Incr Delay (d2), s/veh	0.0	0.0	0.8	0.2	2.5	0.1	0.1	0.0	0.2	0.2	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.1	0.4	3.3	0.3	0.1	0.0	0.2	0.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.4	0.0	14.0	16.7	16.7	11.5	6.0	0.0	6.0	6.5	0.0	5.9
LnGrp LOS	B		B	B	B	B	A		A	A		A
Approach Vol, veh/h		309			531			75			95	
Approach Delay, s/veh		14.0			16.2			6.0			6.2	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	26.9	18.1	26.9	18.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	2.8	11.3	3.8	11.1
Green Ext Time (p_c), s	0.2	0.9	0.2	1.6

Intersection Summary	
HCM 7th Control Delay, s/veh	13.8
HCM 7th LOS	B

HCM 7th Signalized Intersection Summary

2: N. J St./N. J St. & W Prosperity Ave./W. Prosperity Ave.

03/06/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	427	55	31	460	6	99	159	59	8	127	137
Future Volume (veh/h)	50	427	55	31	460	6	99	159	59	8	127	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	56	474	61	34	511	7	110	177	66	9	141	152
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	137	749	100	115	880	12	671	1339	482	712	930	812
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	148	2628	351	90	3089	43	1103	2600	936	1155	1805	1577
Grp Volume(v), veh/h	301	0	290	298	0	254	110	121	122	9	141	152
Grp Sat Flow(s),veh/h/ln	1461	0	1666	1674	0	1548	1103	1805	1731	1155	1805	1577
Q Serve(g_s), s	2.4	0.0	6.8	0.2	0.0	6.3	2.7	1.6	1.7	0.2	1.8	2.3
Cycle Q Clear(g_c), s	8.7	0.0	6.8	7.0	0.0	6.3	5.0	1.6	1.7	1.8	1.8	2.3
Prop In Lane	0.19		0.21	0.11		0.03	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	511	0	475	566	0	441	671	930	891	712	930	812
V/C Ratio(X)	0.59	0.00	0.61	0.53	0.00	0.58	0.16	0.13	0.14	0.01	0.15	0.19
Avail Cap(c_a), veh/h	692	0	666	759	0	619	671	930	891	712	930	812
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.00	0.91	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	0.0	13.9	13.7	0.0	13.8	7.2	5.7	5.7	6.2	5.7	5.9
Incr Delay (d2), s/veh	1.0	0.0	1.2	0.8	0.0	1.2	0.5	0.3	0.3	0.0	0.3	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	2.1	2.1	0.0	1.8	0.5	0.4	0.4	0.0	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.2	0.0	15.1	14.4	0.0	15.0	7.7	6.0	6.0	6.2	6.1	6.4
LnGrp LOS	B		B	B		B	A	A	A	A	A	A
Approach Vol, veh/h		591			552			353			302	
Approach Delay, s/veh		15.1			14.7			6.5			6.2	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	27.7	17.3	27.7	17.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	7.0	10.7	4.3	9.0
Green Ext Time (p_c), s	1.2	2.0	1.3	2.1

Intersection Summary	
HCM 7th Control Delay, s/veh	11.8
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	22	369	14	74	424
Future Vol, veh/h	4	22	369	14	74	424
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	23	388	15	78	446

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	998	396	0	0	403	0
Stage 1	396	-	-	-	-	-
Stage 2	602	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	273	658	-	-	1166	-
Stage 1	684	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	248	658	-	-	1166	-
Mov Cap-2 Maneuver	248	-	-	-	-	-
Stage 1	684	-	-	-	-	-
Stage 2	502	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.24	0	1.23
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	525	267	-
HCM Lane V/C Ratio	-	-	0.052	0.067	-
HCM Ctrl Dly (s/v)	-	-	12.2	8.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	1	0	3	8	6	385	1	8	487	4
Future Vol, veh/h	1	1	1	0	3	8	6	385	1	8	487	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	1	1	0	3	9	7	423	1	9	535	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	993	992	537	990	994	424	540	0	0	424	0	0
Stage 1	555	555	-	437	437	-	-	-	-	-	-	-
Stage 2	438	437	-	553	557	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	226	248	548	227	247	635	1039	-	-	1146	-	-
Stage 1	520	516	-	602	583	-	-	-	-	-	-	-
Stage 2	601	583	-	521	515	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	216	243	548	221	242	635	1039	-	-	1146	-	-
Mov Cap-2 Maneuver	216	243	-	221	242	-	-	-	-	-	-	-
Stage 1	514	511	-	597	578	-	-	-	-	-	-	-
Stage 2	585	578	-	513	510	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	17.84	13.41	0.13	0.13
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	28	-	-	284	440	29	-	-
HCM Lane V/C Ratio	0.006	-	-	0.012	0.027	0.008	-	-
HCM Ctrl Dly (s/v)	8.5	0	-	17.8	13.4	8.2	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	15	17	12	6	1
Future Vol, veh/h	0	15	17	12	6	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	64	64	64	64	64	64
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	23	27	19	9	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	82	10	11	0	-	0
Stage 1	10	-	-	-	-	-
Stage 2	72	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	925	1077	1622	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	910	1077	1622	-	-	-
Mov Cap-2 Maneuver	910	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.42	4.25	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1055	-	1077	-	-
HCM Lane V/C Ratio	0.016	-	0.022	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Queues

1: N. E St./N. E St. & W. Prosperity Ave. /W Prosperity Ave.

03/06/2025

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	3	306	53	425	53	19	56	56	39
v/c Ratio	0.01	0.49	0.17	0.68	0.10	0.03	0.07	0.09	0.05
Control Delay (s/veh)	8.7	13.8	14.8	23.5	7.1	8.3	5.0	8.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	8.7	13.8	14.8	23.5	7.1	8.3	5.0	8.6	6.6
Queue Length 50th (ft)	1	57	12	99	0	3	3	8	3
Queue Length 95th (ft)	4	100	m27	147	m12	12	17	24	16
Internal Link Dist (ft)		803		1612			324		1250
Turn Bay Length (ft)	150		140		140	150		150	
Base Capacity (vph)	262	749	376	752	639	639	804	634	843
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.41	0.14	0.57	0.08	0.03	0.07	0.09	0.05

Intersection Summary

Description: N E St & W Prosperity Ave

m Volume for 95th percentile queue is metered by upstream signal.

Queues

2: N. J St./N. J St. & W Prosperity Ave./W. Prosperity Ave.

03/06/2025

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	591	552	110	243	9	293
v/c Ratio	0.62	0.56	0.21	0.14	0.02	0.17
Control Delay (s/veh)	11.1	14.7	9.2	5.7	7.8	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.1	14.7	9.2	5.7	7.8	4.2
Queue Length 50th (ft)	33	60	15	11	1	9
Queue Length 95th (ft)	46	82	45	30	7	28
Internal Link Dist (ft)	1612	871		556		1340
Turn Bay Length (ft)			200		190	
Base Capacity (vph)	1238	1289	536	1733	563	1699
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.43	0.21	0.14	0.02	0.17

Intersection Summary
Description: N J St & W Prosperity Ave

Appendix E - Existing Plus Project Conditions Intersection Level of Service Worksheets

HCM 7th Signalized Intersection Summary

1: N. E St./N. E St. & W. Prosperity Ave. /W Prosperity Ave.

03/10/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	241	13	37	183	107	33	165	33	253	178	134
Future Volume (veh/h)	58	241	13	37	183	107	33	165	33	253	178	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.94	0.99		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	84	349	19	54	265	155	48	239	48	367	258	194
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	295	505	27	242	539	451	501	838	168	643	547	411
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	969	1765	96	1008	1885	1578	943	1523	306	1098	994	747
Grp Volume(v), veh/h	84	0	368	54	265	155	48	0	287	367	0	452
Grp Sat Flow(s),veh/h/ln	969	0	1861	1008	1885	1578	943	0	1829	1098	0	1741
Q Serve(g_s), s	4.3	0.0	9.7	2.8	6.4	4.3	1.8	0.0	4.6	14.7	0.0	8.7
Cycle Q Clear(g_c), s	10.8	0.0	9.7	12.4	6.4	4.3	10.5	0.0	4.6	19.3	0.0	8.7
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.17	1.00		0.43
Lane Grp Cap(c), veh/h	295	0	532	242	539	451	501	0	1006	643	0	958
V/C Ratio(X)	0.28	0.00	0.69	0.22	0.49	0.34	0.10	0.00	0.29	0.57	0.00	0.47
Avail Cap(c_a), veh/h	335	0	609	283	617	516	501	0	1006	643	0	958
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.97	0.97	0.97	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.8	0.0	17.5	23.0	16.3	15.5	10.7	0.0	6.6	11.8	0.0	7.5
Incr Delay (d2), s/veh	0.5	0.0	2.8	0.4	0.7	0.4	0.4	0.0	0.7	3.6	0.0	1.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	3.9	0.6	2.4	1.4	0.4	0.0	1.4	3.3	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.3	0.0	20.3	23.5	17.0	16.0	11.1	0.0	7.3	15.4	0.0	9.2
LnGrp LOS	C		C	C	B	B	B		A	B		A
Approach Vol, veh/h		452			474			335			819	
Approach Delay, s/veh		20.5			17.4			7.8			12.0	
Approach LOS		C			B			A			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		34.8		20.2		34.8		20.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		28.0		18.0		28.0		18.0				
Max Q Clear Time (g_c+I1), s		12.5		12.8		21.3		14.4				
Green Ext Time (p_c), s		1.6		1.2		2.5		0.8				

Intersection Summary			
HCM 7th Control Delay, s/veh		14.4	
HCM 7th LOS		B	

HCM 7th Signalized Intersection Summary
2: N. J St./N. J St. & W Prosperity Ave./W. Prosperity Ave.

03/10/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	467	116	20	295	3	82	123	27	6	147	124
Future Volume (veh/h)	134	467	116	20	295	3	82	123	27	6	147	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	492	122	21	311	3	86	129	28	6	155	131
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	700	178	115	1080	10	605	1342	284	693	864	675
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	424	2059	525	77	3178	30	1093	2918	617	1228	1879	1467
Grp Volume(v), veh/h	381	0	374	183	0	152	86	77	80	6	146	140
Grp Sat Flow(s),veh/h/ln	1400	0	1608	1759	0	1526	1093	1777	1758	1228	1777	1569
Q Serve(g_s), s	8.1	0.0	9.0	0.0	0.0	3.3	2.3	1.1	1.2	0.1	2.2	2.4
Cycle Q Clear(g_c), s	11.4	0.0	9.0	9.0	0.0	3.3	4.7	1.1	1.2	1.3	2.2	2.4
Prop In Lane	0.37		0.33	0.11		0.02	1.00		0.35	1.00		0.94
Lane Grp Cap(c), veh/h	586	0	547	687	0	519	605	817	809	693	817	722
V/C Ratio(X)	0.65	0.00	0.68	0.27	0.00	0.29	0.14	0.09	0.10	0.01	0.18	0.19
Avail Cap(c_a), veh/h	673	0	643	785	0	611	605	817	809	693	817	722
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.00	0.71	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.6	0.0	12.8	10.9	0.0	10.9	8.6	6.9	6.9	7.2	7.1	7.2
Incr Delay (d2), s/veh	1.3	0.0	1.7	0.2	0.0	0.3	0.5	0.2	0.2	0.0	0.5	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	2.6	1.0	0.0	0.9	0.4	0.3	0.3	0.0	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.9	0.0	14.5	11.1	0.0	11.2	9.1	7.1	7.1	7.3	7.6	7.8
LnGrp LOS	B		B	B		B	A	A	A	A	A	A
Approach Vol, veh/h		755			335			243			292	
Approach Delay, s/veh		14.7			11.1			7.8			7.7	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.2		19.8		25.2		19.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		6.7		13.4		4.4		11.0				
Green Ext Time (p_c), s		0.8		1.9		1.2		1.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			11.7									
HCM 7th LOS			B									

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	40	467	61	42	258
Future Vol, veh/h	19	40	467	61	42	258
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	23	48	556	73	50	307

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	999	592	0	0	629	0
Stage 1	592	-	-	-	-	-
Stage 2	407	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	271	508	-	-	958	-
Stage 1	555	-	-	-	-	-
Stage 2	674	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	254	508	-	-	958	-
Mov Cap-2 Maneuver	254	-	-	-	-	-
Stage 1	555	-	-	-	-	-
Stage 2	632	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	16.46	0	1.25
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	384	252	-
HCM Lane V/C Ratio	-	-	0.183	0.052	-
HCM Ctrl Dly (s/v)	-	-	16.5	9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0.2	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	3	3	1	0	18	0	509	5	23	305	3
Future Vol, veh/h	2	3	3	1	0	18	0	509	5	23	305	3
Conflicting Peds, #/hr	1	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	3	3	1	0	20	0	572	6	26	343	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	969	974	345	972	972	576	346	0	0	578	0	0
Stage 1	396	396	-	575	575	-	-	-	-	-	-	-
Stage 2	573	578	-	397	398	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	233	252	698	232	252	517	1213	-	-	996	-	-
Stage 1	629	604	-	503	503	-	-	-	-	-	-	-
Stage 2	505	501	-	629	603	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	216	244	697	220	244	517	1213	-	-	996	-	-
Mov Cap-2 Maneuver	216	244	-	220	244	-	-	-	-	-	-	-
Stage 1	609	585	-	503	503	-	-	-	-	-	-	-
Stage 2	484	501	-	601	584	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	16.98	12.81	0	0.61
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1213	-	-	309	482	125	-	-
HCM Lane V/C Ratio	-	-	-	0.029	0.044	0.026	-	-
HCM Ctrl Dly (s/v)	0	-	-	17	12.8	8.7	0	-
HCM Lane LOS	A	-	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	36	20	15	18	0
Future Vol, veh/h	0	36	20	15	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	54	30	22	27	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	109	27	27	0	-	0
Stage 1	27	-	-	-	-	-
Stage 2	82	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	893	1054	1600	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	946	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	876	1054	1600	-	-	-
Mov Cap-2 Maneuver	876	-	-	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	946	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.6	4.17	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1029	-	1054	-	-
HCM Lane V/C Ratio	0.019	-	0.051	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Queues

1: N. E St./N. E St. & W. Prosperity Ave. /W Prosperity Ave.

03/10/2025

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	84	368	54	265	155	48	287	367	452
v/c Ratio	0.30	0.68	0.27	0.49	0.28	0.11	0.29	0.63	0.47
Control Delay (s/veh)	15.5	21.6	16.0	17.1	4.0	8.2	7.8	17.3	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.5	21.6	16.0	17.1	4.0	8.2	7.8	17.3	8.4
Queue Length 50th (ft)	19	91	12	62	0	6	38	68	55
Queue Length 95th (ft)	31	102	23	75	14	17	60	107	81
Internal Link Dist (ft)		803		1612			324		1250
Turn Bay Length (ft)	150		140		140	150		150	
Base Capacity (vph)	351	674	248	677	657	434	982	578	966
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.55	0.22	0.39	0.24	0.11	0.29	0.63	0.47

Intersection Summary
Description: N E St & W Prosperity Ave

Queues

2: N. J St./N. J St. & W Prosperity Ave./W. Prosperity Ave.

03/10/2025

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	755	335	86	157	6	286
v/c Ratio	0.73	0.30	0.18	0.10	0.01	0.19
Control Delay (s/veh)	15.9	10.5	10.0	7.2	8.3	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.9	10.5	10.0	7.2	8.3	5.2
Queue Length 50th (ft)	72	28	13	10	1	12
Queue Length 95th (ft)	118	50	36	23	6	30
Internal Link Dist (ft)	1612	871		556		1340
Turn Bay Length (ft)			200		190	
Base Capacity (vph)	1149	1265	473	1535	538	1517
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.26	0.18	0.10	0.01	0.19

Intersection Summary
Description: N J St & W Prosperity Ave

HCM 7th Signalized Intersection Summary

1: N. E St./N. E St. & W. Prosperity Ave. /W Prosperity Ave.

03/10/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	268	17	49	395	116	18	24	34	102	27	15
Future Volume (veh/h)	9	268	17	49	395	116	18	24	34	102	27	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.97	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	10	288	18	53	425	125	19	26	37	110	29	16
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	247	533	33	341	573	467	822	348	495	800	566	312
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	854	1753	110	1080	1885	1535	1372	701	998	1344	1142	630
Grp Volume(v), veh/h	10	0	306	53	425	125	19	0	63	110	0	45
Grp Sat Flow(s),veh/h/ln	854	0	1862	1080	1885	1535	1372	0	1700	1344	0	1772
Q Serve(g_s), s	0.5	0.0	6.2	1.9	9.1	2.8	0.3	0.0	0.9	2.1	0.0	0.6
Cycle Q Clear(g_c), s	9.6	0.0	6.2	8.1	9.1	2.8	0.9	0.0	0.9	3.0	0.0	0.6
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.59	1.00		0.36
Lane Grp Cap(c), veh/h	247	0	566	341	573	467	822	0	843	800	0	879
V/C Ratio(X)	0.04	0.00	0.54	0.16	0.74	0.27	0.02	0.00	0.07	0.14	0.00	0.05
Avail Cap(c_a), veh/h	329	0	745	444	754	614	822	0	843	800	0	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.86	0.86	0.86	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	13.0	16.4	14.1	11.9	6.1	0.0	5.9	6.7	0.0	5.9
Incr Delay (d2), s/veh	0.1	0.0	0.8	0.2	2.4	0.3	0.1	0.0	0.2	0.4	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.1	0.4	3.3	0.8	0.1	0.0	0.2	0.5	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.4	0.0	13.8	16.6	16.5	12.1	6.2	0.0	6.1	7.1	0.0	6.0
LnGrp LOS	B		B	B	B	B	A		A	A		A
Approach Vol, veh/h		316			603			82			155	
Approach Delay, s/veh		14.0			15.6			6.1			6.8	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.8		18.2		26.8		18.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.9		11.6		5.0		11.1				
Green Ext Time (p_c), s		0.2		0.9		0.4		1.8				

Intersection Summary			
HCM 7th Control Delay, s/veh		13.3	
HCM 7th LOS		B	

HCM 7th Signalized Intersection Summary
2: N. J St./N. J St. & W Prosperity Ave./W. Prosperity Ave.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	450	65	31	482	6	129	159	59	8	127	152
Future Volume (veh/h)	67	450	65	31	482	6	129	159	59	8	127	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	500	72	34	536	7	143	177	66	9	141	169
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	785	118	115	975	13	619	1258	453	674	874	763
Arrive On Green	0.21	0.21	0.21	0.32	0.32	0.32	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	188	2486	372	82	3085	41	1086	2600	936	1155	1805	1577
Grp Volume(v), veh/h	325	0	321	311	0	266	143	121	122	9	141	169
Grp Sat Flow(s),veh/h/ln	1385	0	1662	1659	0	1549	1086	1805	1731	1155	1805	1577
Q Serve(g_s), s	3.9	0.0	7.9	0.2	0.0	6.4	3.9	1.7	1.8	0.2	2.0	2.8
Cycle Q Clear(g_c), s	10.3	0.0	7.9	8.1	0.0	6.4	6.7	1.7	1.8	2.0	2.0	2.8
Prop In Lane	0.23		0.22	0.11		0.03	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	536	0	525	613	0	489	619	874	838	674	874	763
V/C Ratio(X)	0.61	0.00	0.61	0.51	0.00	0.54	0.23	0.14	0.15	0.01	0.16	0.22
Avail Cap(c_a), veh/h	662	0	665	754	0	619	619	874	838	674	874	763
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.00	0.92	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	15.2	12.6	0.0	12.7	8.7	6.4	6.4	7.0	6.5	6.7
Incr Delay (d2), s/veh	1.0	0.0	1.1	0.7	0.0	0.9	0.9	0.3	0.4	0.0	0.4	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	2.6	2.0	0.0	1.8	0.8	0.5	0.5	0.0	0.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.8	0.0	16.3	13.3	0.0	13.7	9.5	6.8	6.8	7.0	6.9	7.4
LnGrp LOS	B		B	B		B	A	A	A	A	A	A
Approach Vol, veh/h		646			577			386			319	
Approach Delay, s/veh		16.6			13.4			7.8			7.2	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.3		18.7		26.3		18.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		8.7		12.3		4.8		10.1				
Green Ext Time (p_c), s		1.2		1.9		1.4		2.1				

Intersection Summary												
HCM 7th Control Delay, s/veh			12.3									
HCM 7th LOS			B									

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	23	369	15	74	424
Future Vol, veh/h	4	23	369	15	74	424
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	24	388	16	78	446

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	998	396	0	0	404	0
Stage 1	396	-	-	-	-	-
Stage 2	602	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	272	657	-	-	1165	-
Stage 1	684	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	248	657	-	-	1165	-
Mov Cap-2 Maneuver	248	-	-	-	-	-
Stage 1	684	-	-	-	-	-
Stage 2	502	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.2	0	1.23
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	528	267	-
HCM Lane V/C Ratio	-	-	0.054	0.067	-
HCM Ctrl Dly (s/v)	-	-	12.2	8.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	1	0	3	8	6	385	2	8	487	4
Future Vol, veh/h	1	1	1	0	3	8	6	385	2	8	487	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	1	1	0	3	9	7	423	2	9	535	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	993	993	537	991	995	424	540	0	0	425	0	0
Stage 1	555	555	-	437	437	-	-	-	-	-	-	-
Stage 2	438	438	-	553	557	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	226	247	548	227	247	634	1039	-	-	1145	-	-
Stage 1	520	516	-	602	583	-	-	-	-	-	-	-
Stage 2	601	582	-	521	515	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	216	242	548	221	242	634	1039	-	-	1145	-	-
Mov Cap-2 Maneuver	216	242	-	221	242	-	-	-	-	-	-	-
Stage 1	514	511	-	597	578	-	-	-	-	-	-	-
Stage 2	585	577	-	513	510	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	17.85	13.41	0.13	0.13
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	27	-	-	284	440	29	-	-
HCM Lane V/C Ratio	0.006	-	-	0.012	0.027	0.008	-	-
HCM Ctrl Dly (s/v)	8.5	0	-	17.8	13.4	8.2	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	16	17	16	29	1
Future Vol, veh/h	0	16	17	16	29	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	64	64	64	64	64	64
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	25	27	25	45	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	124	46	47	0	-	0
Stage 1	46	-	-	-	-	-
Stage 2	78	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	876	1029	1574	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	950	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	861	1029	1574	-	-	-
Mov Cap-2 Maneuver	861	-	-	-	-	-
Stage 1	965	-	-	-	-	-
Stage 2	950	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.59	3.77	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	927	-	1029	-	-
HCM Lane V/C Ratio	0.017	-	0.024	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Queues

1: N. E St./N. E St. & W. Prosperity Ave. /W Prosperity Ave.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	10	306	53	425	125	19	63	110	45
v/c Ratio	0.05	0.49	0.17	0.68	0.21	0.03	0.08	0.17	0.05
Control Delay (s/veh)	9.1	13.8	14.3	22.9	6.5	8.3	5.2	9.3	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	9.1	13.8	14.3	22.9	6.5	8.3	5.2	9.3	6.4
Queue Length 50th (ft)	2	57	12	100	0	3	4	16	4
Queue Length 95th (ft)	8	100	m26	150	30	12	20	42	18
Internal Link Dist (ft)		803		1612			324		1250
Turn Bay Length (ft)	150		140		140	150		150	
Base Capacity (vph)	262	749	376	752	683	635	814	630	842
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.41	0.14	0.57	0.18	0.03	0.08	0.17	0.05

Intersection Summary

Description: N E St & W Prosperity Ave

m Volume for 95th percentile queue is metered by upstream signal.

Queues

2: N. J St./N. J St. & W Prosperity Ave./W. Prosperity Ave.

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	646	577	143	243	9	310
v/c Ratio	0.66	0.55	0.28	0.15	0.02	0.19
Control Delay (s/veh)	12.9	13.9	10.6	6.0	8.1	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	12.9	13.9	10.6	6.0	8.1	4.3
Queue Length 50th (ft)	41	60	21	12	1	10
Queue Length 95th (ft)	71	86	57	30	7	29
Internal Link Dist (ft)	1612	871		556		1340
Turn Bay Length (ft)			200		190	
Base Capacity (vph)	1196	1287	506	1667	540	1639
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.45	0.28	0.15	0.02	0.19

Intersection Summary
Description: N J St & W Prosperity Ave

Appendix F - Cumulative (Year 2046) Without Project Intersection Level of Service Worksheets

HCM 7th Signalized Intersection Summary

1: N. E St./N. E St. & W. Prosperity Ave. /W Prosperity Ave.

03/11/2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	365	20	56	277	133	50	247	50	227	261	196
Future Volume (veh/h)	85	365	20	56	277	133	50	247	50	227	261	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	397	22	61	301	145	54	268	54	247	284	213
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	354	584	32	292	624	524	384	704	142	530	460	345
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	940	1750	97	957	1870	1568	897	1510	304	1055	986	740
Grp Volume(v), veh/h	92	0	419	61	301	145	54	0	322	247	0	497
Grp Sat Flow(s),veh/h/ln	940	0	1847	957	1870	1568	897	0	1814	1055	0	1726
Q Serve(g_s), s	3.9	0.0	8.8	2.6	5.7	3.1	2.2	0.0	5.2	8.9	0.0	9.7
Cycle Q Clear(g_c), s	9.6	0.0	8.8	11.4	5.7	3.1	11.9	0.0	5.2	14.1	0.0	9.7
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.17	1.00		0.43
Lane Grp Cap(c), veh/h	354	0	617	292	624	524	384	0	845	530	0	804
V/C Ratio(X)	0.26	0.00	0.68	0.21	0.48	0.28	0.14	0.00	0.38	0.47	0.00	0.62
Avail Cap(c_a), veh/h	416	0	739	356	748	627	384	0	845	530	0	804
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.95	0.95	0.95	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.7	0.0	12.9	17.8	11.9	11.0	13.5	0.0	7.8	12.4	0.0	9.0
Incr Delay (d2), s/veh	0.4	0.0	2.0	0.3	0.5	0.3	0.8	0.0	1.3	2.9	0.0	3.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	3.0	0.5	1.9	0.8	0.4	0.0	1.6	2.0	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.1	0.0	14.9	18.2	12.4	11.3	14.2	0.0	9.1	15.3	0.0	12.6
LnGrp LOS	B		B	B	B	B	B		A	B		B
Approach Vol, veh/h		511			507			376			744	
Approach Delay, s/veh		15.1			12.8			9.8			13.5	
Approach LOS		B			B			A			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.5		19.5		25.5		19.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		13.9		11.6		16.1		13.4				
Green Ext Time (p_c), s		0.8		1.6		0.8		1.1				

Intersection Summary												
HCM 7th Control Delay, s/veh			13.1									
HCM 7th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	666	153	30	437	5	114	186	41	9	223	180
Future Volume (veh/h)	162	666	153	30	437	5	114	186	41	9	223	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	701	161	32	460	5	120	196	43	9	235	189
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	941	227	105	1346	15	397	1107	238	501	722	553
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	379	2005	483	81	2868	32	963	2908	625	1139	1896	1453
Grp Volume(v), veh/h	495	0	538	260	0	237	120	118	121	9	219	205
Grp Sat Flow(s),veh/h/ln	1252	0	1615	1455	0	1526	963	1777	1756	1139	1777	1572
Q Serve(g_s), s	16.0	0.0	15.9	0.8	0.0	5.9	6.1	2.6	2.7	0.3	5.2	5.6
Cycle Q Clear(g_c), s	21.9	0.0	15.9	16.7	0.0	5.9	11.6	2.6	2.7	3.1	5.2	5.6
Prop In Lane	0.35		0.30	0.12		0.02	1.00		0.36	1.00		0.92
Lane Grp Cap(c), veh/h	668	0	758	751	0	716	397	676	668	501	676	598
V/C Ratio(X)	0.74	0.00	0.71	0.35	0.00	0.33	0.30	0.17	0.18	0.02	0.32	0.34
Avail Cap(c_a), veh/h	768	0	875	860	0	827	397	676	668	501	676	598
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.00	0.74	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	12.7	10.0	0.0	10.0	17.4	12.3	12.4	13.4	13.1	13.2
Incr Delay (d2), s/veh	2.5	0.0	1.7	0.3	0.0	0.3	1.9	0.6	0.6	0.1	1.3	1.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	4.8	1.7	0.0	1.6	1.4	1.0	1.0	0.1	1.9	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.4	0.0	14.3	10.2	0.0	10.3	19.3	12.9	13.0	13.5	14.4	14.8
LnGrp LOS	B		B	B		B	B	B	B	B	B	B
Approach Vol, veh/h		1033			497			359			433	
Approach Delay, s/veh		15.8			10.2			15.1			14.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.3		32.7		27.3		32.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		32.5		18.5		32.5				
Max Q Clear Time (g_c+I1), s		13.6		23.9		7.6		18.7				
Green Ext Time (p_c), s		0.8		4.3		1.8		2.5				

Intersection Summary												
HCM 7th Control Delay, s/veh			14.3									
HCM 7th LOS			B									

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	59	708	92	64	391
Future Vol, veh/h	27	59	708	92	64	391
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	64	770	100	70	425

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1384	820	0	0	870	0
Stage 1	820	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	158	375	-	-	775	-
Stage 1	433	-	-	-	-	-
Stage 2	569	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	140	375	-	-	775	-
Mov Cap-2 Maneuver	140	-	-	-	-	-
Stage 1	433	-	-	-	-	-
Stage 2	502	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	28.44	0	1.42
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	245	253	-
HCM Lane V/C Ratio	-	-	0.381	0.09	-
HCM Ctrl Dly (s/v)	-	-	28.4	10.1	0
HCM Lane LOS	-	-	D	B	A
HCM 95th %tile Q(veh)	-	-	1.7	0.3	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	5	5	2	0	26	0	770	8	35	462	5
Future Vol, veh/h	3	5	5	2	0	26	0	770	8	35	462	5
Conflicting Peds, #/hr	1	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	5	5	2	0	28	0	837	9	38	502	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1419	1427	506	1423	1425	842	508	0	0	846	0	0
Stage 1	581	581	-	841	841	-	-	-	-	-	-	-
Stage 2	838	846	-	582	584	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	114	135	566	114	136	364	1057	-	-	791	-	-
Stage 1	500	500	-	359	380	-	-	-	-	-	-	-
Stage 2	361	379	-	499	498	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	98	126	566	101	126	364	1057	-	-	791	-	-
Mov Cap-2 Maneuver	98	126	-	101	126	-	-	-	-	-	-	-
Stage 1	466	466	-	359	380	-	-	-	-	-	-	-
Stage 2	332	379	-	455	465	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	28.92	18.04	0	0.68
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1057	-	-	165	306	125	-	-
HCM Lane V/C Ratio	-	-	-	0.086	0.099	0.048	-	-
HCM Ctrl Dly (s/v)	0	-	-	28.9	18	9.8	0	-
HCM Lane LOS	A	-	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	55	29	12	17	0
Future Vol, veh/h	0	55	29	12	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	60	32	13	18	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	95	18	18	0	-	0
Stage 1	18	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	905	1060	1598	-	-	-
Stage 1	1004	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	887	1060	1598	-	-	-
Mov Cap-2 Maneuver	887	-	-	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.6	5.16	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1273	-	1060	-	-
HCM Lane V/C Ratio	0.02	-	0.056	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Queues

1: N. E St./N. E St. & W. Prosperity Ave. /W Prosperity Ave.

03/11/2025

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	92	419	61	301	145	54	322	247	497
v/c Ratio	0.30	0.69	0.29	0.50	0.24	0.16	0.37	0.51	0.57
Control Delay (s/veh)	12.9	18.9	13.8	14.4	3.3	10.0	9.5	15.2	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	12.9	18.9	13.8	14.4	3.3	10.0	9.5	15.2	11.1
Queue Length 50th (ft)	17	88	11	60	0	7	44	41	65
Queue Length 95th (ft)	39	144	30	100	23	27	101	#129	159
Internal Link Dist (ft)		803		1612			324		1250
Turn Bay Length (ft)	150		140		140	150		150	
Base Capacity (vph)	377	741	261	745	702	333	872	481	866
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.57	0.23	0.40	0.21	0.16	0.37	0.51	0.57

Intersection Summary

Description: N E St & W Prosperity Ave

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

2: N. J St./N. J St. & W Prosperity Ave./W. Prosperity Ave.

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	1033	497	120	239	9	424
v/c Ratio	0.80	0.34	0.36	0.19	0.02	0.32
Control Delay (s/veh)	17.3	9.6	19.9	12.2	14.7	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.3	9.6	19.9	12.2	14.7	9.0
Queue Length 50th (ft)	136	51	32	25	2	31
Queue Length 95th (ft)	192	71	78	50	11	63
Internal Link Dist (ft)	1612	871		556		1340
Turn Bay Length (ft)			200		190	
Base Capacity (vph)	1439	1648	329	1285	411	1318
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.30	0.36	0.19	0.02	0.32

Intersection Summary
Description: N J St & W Prosperity Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	406	26	74	599	74	27	27	52	79	36	18
Future Volume (veh/h)	5	406	26	74	599	74	27	27	52	79	36	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	437	28	80	644	80	29	29	56	85	39	19
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	702	45	320	756	622	686	245	474	655	513	250
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	729	1736	111	927	1870	1538	1345	568	1097	1307	1188	579
Grp Volume(v), veh/h	5	0	465	80	644	80	29	0	85	85	0	58
Grp Sat Flow(s),veh/h/ln	729	0	1847	927	1870	1538	1345	0	1666	1307	0	1766
Q Serve(g_s), s	0.3	0.0	11.0	4.1	17.2	1.8	0.7	0.0	1.7	2.3	0.0	1.1
Cycle Q Clear(g_c), s	17.5	0.0	11.0	15.2	17.2	1.8	1.8	0.0	1.7	4.0	0.0	1.1
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.66	1.00		0.33
Lane Grp Cap(c), veh/h	198	0	747	320	756	622	686	0	720	655	0	763
V/C Ratio(X)	0.03	0.00	0.62	0.25	0.85	0.13	0.04	0.00	0.12	0.13	0.00	0.08
Avail Cap(c_a), veh/h	267	0	924	409	935	769	686	0	720	655	0	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.72	0.72	0.72	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	13.0	19.1	14.9	10.3	9.7	0.0	9.3	10.5	0.0	9.2
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.3	4.7	0.1	0.1	0.0	0.3	0.4	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	3.7	0.8	6.7	0.5	0.2	0.0	0.5	0.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.9	0.0	13.9	19.4	19.6	10.4	9.8	0.0	9.7	10.9	0.0	9.4
LnGrp LOS	C		B	B	B	B	A		A	B		A
Approach Vol, veh/h		470			804			114			143	
Approach Delay, s/veh		14.0			18.6			9.7			10.3	
Approach LOS		B			B			A			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	28.3	26.7	28.3	26.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.5	27.5	18.5	27.5
Max Q Clear Time (g_c+I1), s	3.8	19.5	6.0	19.2
Green Ext Time (p_c), s	0.4	1.7	0.4	3.0

Intersection Summary	
HCM 7th Control Delay, s/veh	15.8
HCM 7th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	647	83	47	697	9	150	241	89	12	193	208
Future Volume (veh/h)	76	647	83	47	697	9	150	241	89	12	193	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	83	703	90	51	758	10	163	262	97	13	210	226
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	972	134	114	1157	16	444	1061	383	498	738	644
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	137	2401	331	83	2858	39	953	2557	923	1022	1777	1552
Grp Volume(v), veh/h	430	0	446	432	0	387	163	180	179	13	210	226
Grp Sat Flow(s),veh/h/ln	1227	0	1642	1455	0	1525	953	1777	1703	1022	1777	1552
Q Serve(g_s), s	6.7	0.0	11.1	2.1	0.0	10.1	7.1	3.3	3.4	0.4	3.9	5.0
Cycle Q Clear(g_c), s	16.8	0.0	11.1	13.2	0.0	10.1	12.1	3.3	3.4	3.9	3.9	5.0
Prop In Lane	0.19		0.20	0.12		0.03	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	583	0	665	670	0	617	444	738	707	498	738	644
V/C Ratio(X)	0.74	0.00	0.67	0.64	0.00	0.63	0.37	0.24	0.25	0.03	0.28	0.35
Avail Cap(c_a), veh/h	618	0	706	709	0	656	444	738	707	498	738	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.00	0.85	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	0.0	12.2	11.8	0.0	11.9	14.1	9.5	9.6	10.8	9.7	10.0
Incr Delay (d2), s/veh	3.7	0.0	2.0	1.9	0.0	1.7	2.3	0.8	0.9	0.1	1.0	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	3.4	3.1	0.0	2.9	1.5	1.1	1.1	0.1	1.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.1	0.0	14.1	13.7	0.0	13.6	16.5	10.3	10.4	10.9	10.7	11.5
LnGrp LOS	B		B	B		B	B	B	B	B	B	B
Approach Vol, veh/h		876			819			522			449	
Approach Delay, s/veh		15.6			13.7			12.3			11.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.3		24.7		25.3		24.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		21.5		19.5		21.5				
Max Q Clear Time (g_c+I1), s		14.1		18.8		7.0		15.2				
Green Ext Time (p_c), s		1.3		1.4		2.0		2.6				

Intersection Summary												
HCM 7th Control Delay, s/veh			13.6									
HCM 7th LOS			B									

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	33	559	21	112	643
Future Vol, veh/h	6	33	559	21	112	643
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	35	588	22	118	677

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1512	599	0	0	611	0
Stage 1	599	-	-	-	-	-
Stage 2	913	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	132	501	-	-	968	-
Stage 1	548	-	-	-	-	-
Stage 2	391	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	106	501	-	-	968	-
Mov Cap-2 Maneuver	106	-	-	-	-	-
Stage 1	548	-	-	-	-	-
Stage 2	315	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	17.95	0	1.37
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	319	267	-
HCM Lane V/C Ratio	-	-	0.129	0.122	-
HCM Ctrl Dly (s/v)	-	-	17.9	9.2	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.4	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	2	2	0	5	12	9	584	2	12	738	6
Future Vol, veh/h	2	2	2	0	5	12	9	584	2	12	738	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	92	92	92	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	2	2	2	0	0	0	0	0	0
Mvmt Flow	2	2	2	0	5	13	10	642	2	13	811	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1505	1504	814	1501	1507	643	818	0	0	644	0	0
Stage 1	841	841	-	663	663	-	-	-	-	-	-	-
Stage 2	664	664	-	838	844	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	101	122	381	100	121	474	819	-	-	951	-	-
Stage 1	362	383	-	451	459	-	-	-	-	-	-	-
Stage 2	453	462	-	360	379	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	89	117	381	94	116	474	819	-	-	951	-	-
Mov Cap-2 Maneuver	89	117	-	94	116	-	-	-	-	-	-	-
Stage 1	353	374	-	442	450	-	-	-	-	-	-	-
Stage 2	427	453	-	347	370	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	33.2	20.69	0.14	0.14
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	27	-	-	134	248	29	-	-
HCM Lane V/C Ratio	0.012	-	-	0.049	0.075	0.014	-	-
HCM Ctrl Dly (s/v)	9.4	0	-	33.2	20.7	8.8	0	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	26	18	9	2
Future Vol, veh/h	0	23	26	18	9	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	25	28	20	10	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	87	11	12	0	-	0
Stage 1	11	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	914	1070	1607	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	898	1070	1607	-	-	-
Mov Cap-2 Maneuver	898	-	-	-	-	-
Stage 1	994	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.44	4.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1064	-	1070	-	-
HCM Lane V/C Ratio	0.018	-	0.023	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Queues

1: N. E St./N. E St. & W. Prosperity Ave. /W Prosperity Ave.

03/11/2025

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	5	465	80	644	80	29	85	85	58
v/c Ratio	0.03	0.58	0.28	0.80	0.12	0.05	0.12	0.16	0.08
Control Delay (s/veh)	7.8	14.0	11.4	21.1	2.6	12.6	6.8	13.5	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.8	14.0	11.4	21.1	2.6	12.6	6.8	13.5	9.6
Queue Length 50th (ft)	1	99	15	161	0	6	6	18	8
Queue Length 95th (ft)	5	158	37	251	16	21	30	46	28
Internal Link Dist (ft)		803		1612			324		1250
Turn Bay Length (ft)	150		140		140	150		150	
Base Capacity (vph)	181	925	334	931	787	531	699	525	723
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.50	0.24	0.69	0.10	0.05	0.12	0.16	0.08

Intersection Summary
Description: N E St & W Prosperity Ave

Queues

2: N. J St./N. J St. & W Prosperity Ave./W. Prosperity Ave.

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	876	819	163	359	13	436
v/c Ratio	0.81	0.68	0.42	0.24	0.03	0.31
Control Delay (s/veh)	19.6	15.5	15.2	7.7	9.8	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.6	15.5	15.2	7.7	9.8	8.4
Queue Length 50th (ft)	103	92	34	25	2	33
Queue Length 95th (ft)	162	141	78	48	10	59
Internal Link Dist (ft)	1612	871		556		1340
Turn Bay Length (ft)			200		190	
Base Capacity (vph)	1168	1292	392	1483	422	1422
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.63	0.42	0.24	0.03	0.31

Intersection Summary
Description: N J St & W Prosperity Ave

Appendix G - Cumulative (Year 2046) Plus Project Intersection Level of Service Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	365	20	56	277	152	50	249	50	297	267	201
Future Volume (veh/h)	87	365	20	56	277	152	50	249	50	297	267	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	397	22	61	301	165	54	271	54	323	290	218
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	321	564	31	262	603	505	400	753	150	553	491	369
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	922	1750	97	957	1870	1568	889	1513	301	1052	986	741
Grp Volume(v), veh/h	95	0	419	61	301	165	54	0	325	323	0	508
Grp Sat Flow(s),veh/h/ln	922	0	1847	957	1870	1568	889	0	1814	1052	0	1726
Q Serve(g_s), s	4.6	0.0	9.9	3.0	6.5	4.0	2.3	0.0	5.5	13.5	0.0	10.5
Cycle Q Clear(g_c), s	11.1	0.0	9.9	12.9	6.5	4.0	12.8	0.0	5.5	19.0	0.0	10.5
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.17	1.00		0.43
Lane Grp Cap(c), veh/h	321	0	595	262	603	505	400	0	903	553	0	859
V/C Ratio(X)	0.30	0.00	0.70	0.23	0.50	0.33	0.13	0.00	0.36	0.58	0.00	0.59
Avail Cap(c_a), veh/h	356	0	665	298	673	564	400	0	903	553	0	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.95	0.95	0.95	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.2	0.0	14.9	20.5	13.7	12.8	13.5	0.0	7.7	13.5	0.0	8.9
Incr Delay (d2), s/veh	0.5	0.0	3.0	0.4	0.6	0.4	0.7	0.0	1.1	4.5	0.0	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	3.8	0.6	2.3	1.2	0.5	0.0	1.7	3.1	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.7	0.0	17.8	21.0	14.3	13.2	14.2	0.0	8.8	18.0	0.0	11.9
LnGrp LOS	B		B	C	B	B	B		A	B		B
Approach Vol, veh/h		514			527			379			831	
Approach Delay, s/veh		18.0			14.7			9.6			14.3	
Approach LOS		B			B			A			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	29.4	20.6	29.4	20.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.0	18.0	23.0	18.0
Max Q Clear Time (g_c+I1), s	14.8	13.1	21.0	14.9
Green Ext Time (p_c), s	1.3	1.3	1.0	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	14.4
HCM 7th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	694	168	30	444	5	121	186	41	9	223	185
Future Volume (veh/h)	189	694	168	30	444	5	121	186	41	9	223	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	199	731	177	32	467	5	127	196	43	9	235	195
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	287	940	241	105	1393	16	367	1035	222	471	665	525
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	413	1903	488	76	2818	31	958	2908	625	1139	1868	1476
Grp Volume(v), veh/h	522	0	585	262	0	242	127	118	121	9	223	207
Grp Sat Flow(s),veh/h/ln	1190	0	1614	1400	0	1526	958	1777	1756	1139	1777	1567
Q Serve(g_s), s	19.1	0.0	17.3	1.1	0.0	5.7	6.8	2.8	2.9	0.3	5.5	5.9
Cycle Q Clear(g_c), s	24.8	0.0	17.3	18.3	0.0	5.7	12.7	2.8	2.9	3.2	5.5	5.9
Prop In Lane	0.38		0.30	0.12		0.02	1.00		0.36	1.00		0.94
Lane Grp Cap(c), veh/h	671	0	798	759	0	754	367	632	625	471	632	558
V/C Ratio(X)	0.78	0.00	0.73	0.34	0.00	0.32	0.35	0.19	0.19	0.02	0.35	0.37
Avail Cap(c_a), veh/h	712	0	847	805	0	801	367	632	625	471	632	558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.00	0.67	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	0.0	12.0	9.2	0.0	9.1	19.1	13.3	13.4	14.5	14.2	14.3
Incr Delay (d2), s/veh	3.5	0.0	2.1	0.3	0.0	0.2	2.6	0.7	0.7	0.1	1.5	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	0.0	5.1	1.6	0.0	1.5	1.6	1.0	1.1	0.1	2.1	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.6	0.0	14.1	9.4	0.0	9.4	21.6	14.0	14.1	14.5	15.8	16.2
LnGrp LOS	B		B	A		A	C	B	B	B	B	B
Approach Vol, veh/h		1107			504			366			439	
Approach Delay, s/veh		16.3			9.4			16.7			16.0	
Approach LOS		B			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.8		34.2		25.8		34.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		14.7		26.8		7.9		20.3				
Green Ext Time (p_c), s		0.8		2.9		1.9		2.3				

Intersection Summary												
HCM 7th Control Delay, s/veh			14.8									
HCM 7th LOS			B									

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	60	708	92	64	391
Future Vol, veh/h	28	60	708	92	64	391
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	65	770	100	70	425

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1384	820	0	0	870	0
Stage 1	820	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	158	375	-	-	775	-
Stage 1	433	-	-	-	-	-
Stage 2	569	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	140	375	-	-	775	-
Mov Cap-2 Maneuver	140	-	-	-	-	-
Stage 1	433	-	-	-	-	-
Stage 2	502	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	28.93	0	1.42
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	244	253	-
HCM Lane V/C Ratio	-	-	0.392	0.09	-
HCM Ctrl Dly (s/v)	-	-	28.9	10.1	0
HCM Lane LOS	-	-	D	B	A
HCM 95th %tile Q(veh)	-	-	1.8	0.3	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	5	5	2	0	27	0	771	8	35	462	5
Future Vol, veh/h	3	5	5	2	0	27	0	771	8	35	462	5
Conflicting Peds, #/hr	1	0	1	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	5	5	2	0	29	0	838	9	38	502	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1420	1428	506	1424	1426	843	508	0	0	847	0	0
Stage 1	581	581	-	842	842	-	-	-	-	-	-	-
Stage 2	839	847	-	582	584	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	114	135	566	113	135	363	1057	-	-	790	-	-
Stage 1	500	500	-	359	380	-	-	-	-	-	-	-
Stage 2	360	378	-	499	498	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	98	126	566	100	126	363	1057	-	-	790	-	-
Mov Cap-2 Maneuver	98	126	-	100	126	-	-	-	-	-	-	-
Stage 1	466	466	-	359	380	-	-	-	-	-	-	-
Stage 2	331	378	-	455	465	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	29	18.04	0	0.68
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1057	-	-	164	308	125	-	-
HCM Lane V/C Ratio	-	-	-	0.086	0.102	0.048	-	-
HCM Ctrl Dly (s/v)	0	-	-	29	18	9.8	0	-
HCM Lane LOS	A	-	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	55	30	19	24	0
Future Vol, veh/h	0	55	30	19	24	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	60	33	21	26	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	112	26	26	0	-	0
Stage 1	26	-	-	-	-	-
Stage 2	86	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	885	1050	1588	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	937	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	866	1050	1588	-	-	-
Mov Cap-2 Maneuver	866	-	-	-	-	-
Stage 1	976	-	-	-	-	-
Stage 2	937	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.64	4.48	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1102	-	1050	-	-
HCM Lane V/C Ratio	0.021	-	0.057	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Queues

1: N. E St./N. E St. & W. Prosperity Ave. /W Prosperity Ave.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	95	419	61	301	165	54	325	323	508
v/c Ratio	0.35	0.74	0.34	0.53	0.28	0.15	0.34	0.62	0.55
Control Delay (s/veh)	16.4	23.4	18.3	17.4	3.9	9.0	8.7	17.7	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.4	23.4	18.3	17.4	3.9	9.0	8.7	17.7	10.0
Queue Length 50th (ft)	21	103	13	69	0	8	48	63	72
Queue Length 95th (ft)	49	173	38	120	29	26	99	#182	158
Internal Link Dist (ft)		803		1612			324		1250
Turn Bay Length (ft)	150		140		140	150		150	
Base Capacity (vph)	319	667	209	670	658	364	943	518	930
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.63	0.29	0.45	0.25	0.15	0.34	0.62	0.55

Intersection Summary

Description: N E St & W Prosperity Ave

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

2: N. J St./N. J St. & W Prosperity Ave./W. Prosperity Ave.

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	1107	504	127	239	9	430
v/c Ratio	0.85	0.34	0.41	0.19	0.02	0.34
Control Delay (s/veh)	20.2	9.5	20.7	12.1	14.1	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.2	9.5	20.7	12.1	14.1	8.9
Queue Length 50th (ft)	150	49	36	26	2	32
Queue Length 95th (ft)	#235	76	81	48	11	62
Internal Link Dist (ft)	1612	871		556		1340
Turn Bay Length (ft)			200		190	
Base Capacity (vph)	1373	1588	313	1244	397	1283
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.32	0.41	0.19	0.02	0.34

Intersection Summary

Description: N J St & W Prosperity Ave

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	406	26	74	599	141	27	33	52	129	39	21
Future Volume (veh/h)	11	406	26	74	599	141	27	33	52	129	39	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	437	28	80	644	152	29	35	56	139	42	23
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	706	45	323	760	625	676	277	444	647	488	267
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	682	1736	111	927	1870	1538	1337	645	1032	1300	1136	622
Grp Volume(v), veh/h	12	0	465	80	644	152	29	0	91	139	0	65
Grp Sat Flow(s),veh/h/ln	682	0	1847	927	1870	1538	1337	0	1678	1300	0	1758
Q Serve(g_s), s	0.9	0.0	11.0	4.1	17.1	3.6	0.7	0.0	1.8	4.0	0.0	1.2
Cycle Q Clear(g_c), s	18.0	0.0	11.0	15.1	17.1	3.6	1.9	0.0	1.8	5.8	0.0	1.2
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.62	1.00		0.35
Lane Grp Cap(c), veh/h	196	0	751	323	760	625	676	0	721	647	0	756
V/C Ratio(X)	0.06	0.00	0.62	0.25	0.85	0.24	0.04	0.00	0.13	0.21	0.00	0.09
Avail Cap(c_a), veh/h	259	0	924	409	935	769	676	0	721	647	0	756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.72	0.72	0.72	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	12.9	18.9	14.8	10.7	9.9	0.0	9.5	11.2	0.0	9.3
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.3	4.5	0.1	0.1	0.0	0.4	0.8	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	3.7	0.8	6.6	1.0	0.2	0.0	0.6	1.0	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.1	0.0	13.8	19.2	19.3	10.9	10.0	0.0	9.8	12.0	0.0	9.5
LnGrp LOS	C		B	B	B	B	A		A	B		A
Approach Vol, veh/h		477			876			120			204	
Approach Delay, s/veh		14.0			17.8			9.9			11.2	
Approach LOS		B			B			A			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		28.1		26.9		28.1		26.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.5		27.5		18.5		27.5				
Max Q Clear Time (g_c+I1), s		3.9		20.0		7.8		19.1				
Green Ext Time (p_c), s		0.4		1.7		0.5		3.2				

Intersection Summary												
HCM 7th Control Delay, s/veh			15.4									
HCM 7th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	670	93	47	719	9	180	241	89	12	193	223
Future Volume (veh/h)	93	670	93	47	719	9	180	241	89	12	193	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	728	101	51	782	10	196	262	97	13	210	242
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	977	147	114	1224	16	406	1001	361	471	696	607
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	161	2280	342	78	2856	38	939	2557	923	1022	1777	1552
Grp Volume(v), veh/h	446	0	484	444	0	399	196	180	179	13	210	242
Grp Sat Flow(s),veh/h/ln	1142	0	1640	1448	0	1525	939	1777	1703	1022	1777	1552
Q Serve(g_s), s	8.9	0.0	12.0	1.5	0.0	10.1	9.5	3.4	3.6	0.4	4.1	5.6
Cycle Q Clear(g_c), s	19.0	0.0	12.0	13.4	0.0	10.1	15.1	3.4	3.6	4.0	4.1	5.6
Prop In Lane	0.23		0.21	0.11		0.03	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	578	0	703	701	0	654	406	696	667	471	696	607
V/C Ratio(X)	0.77	0.00	0.69	0.63	0.00	0.61	0.48	0.26	0.27	0.03	0.30	0.40
Avail Cap(c_a), veh/h	585	0	712	709	0	662	406	696	667	471	696	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.00	0.85	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	0.0	11.6	10.9	0.0	11.1	16.4	10.3	10.3	11.7	10.5	11.0
Incr Delay (d2), s/veh	5.3	0.0	2.4	1.8	0.0	1.6	4.1	0.9	1.0	0.1	1.1	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	3.6	3.0	0.0	2.8	2.1	1.1	1.2	0.1	1.4	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.7	0.0	13.9	12.7	0.0	12.7	20.5	11.2	11.3	11.8	11.6	12.9
LnGrp LOS	B		B	B		B	C	B	B	B	B	B
Approach Vol, veh/h		930			843			555			465	
Approach Delay, s/veh		16.2			12.7			14.5			12.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.1		25.9		24.1		25.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.3		21.7		19.3		21.7				
Max Q Clear Time (g_c+I1), s		17.1		21.0		7.6		15.4				
Green Ext Time (p_c), s		0.7		0.4		2.0		2.7				

Intersection Summary												
HCM 7th Control Delay, s/veh			14.2									
HCM 7th LOS			B									

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	34	559	22	112	643
Future Vol, veh/h	6	34	559	22	112	643
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	36	588	23	118	677

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1513	600	0	0	612	0
Stage 1	600	-	-	-	-	-
Stage 2	913	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	132	501	-	-	967	-
Stage 1	548	-	-	-	-	-
Stage 2	391	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	106	501	-	-	967	-
Mov Cap-2 Maneuver	106	-	-	-	-	-
Stage 1	548	-	-	-	-	-
Stage 2	315	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	17.87	0	1.37
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	322	267	-
HCM Lane V/C Ratio	-	-	0.131	0.122	-
HCM Ctrl Dly (s/v)	-	-	17.9	9.2	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.4	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	2	2	0	5	12	9	584	3	12	738	6
Future Vol, veh/h	2	2	2	0	5	12	9	584	3	12	738	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	2	2	0	5	13	10	635	3	13	802	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1489	1489	805	1485	1491	636	809	0	0	638	0	0
Stage 1	832	832	-	656	656	-	-	-	-	-	-	-
Stage 2	657	658	-	829	835	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	102	124	382	103	124	478	817	-	-	946	-	-
Stage 1	364	384	-	454	462	-	-	-	-	-	-	-
Stage 2	454	461	-	365	383	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	91	119	382	96	118	478	817	-	-	946	-	-
Mov Cap-2 Maneuver	91	119	-	96	118	-	-	-	-	-	-	-
Stage 1	355	375	-	446	454	-	-	-	-	-	-	-
Stage 2	428	453	-	351	373	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	32.78	20.4	0.14	0.14
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	27	-	-	136	252	29	-	-
HCM Lane V/C Ratio	0.012	-	-	0.048	0.073	0.014	-	-
HCM Ctrl Dly (s/v)	9.5	0	-	32.8	20.4	8.9	0	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	24	26	22	32	2
Future Vol, veh/h	0	24	26	22	32	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	28	24	35	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	116	36	37	0	-	0
Stage 1	36	-	-	-	-	-
Stage 2	80	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	880	1037	1574	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	864	1037	1574	-	-	-
Mov Cap-2 Maneuver	864	-	-	-	-	-
Stage 1	969	-	-	-	-	-
Stage 2	943	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.56	3.97	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	975	-	1037	-	-
HCM Lane V/C Ratio	0.018	-	0.025	-	-
HCM Ctrl Dly (s/v)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Queues

1: N. E St./N. E St. & W. Prosperity Ave. /W Prosperity Ave.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	12	465	80	644	152	29	91	139	65
v/c Ratio	0.08	0.58	0.28	0.80	0.21	0.05	0.13	0.27	0.09
Control Delay (s/veh)	8.7	14.0	11.4	21.1	2.4	12.6	7.1	14.6	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	8.7	14.0	11.4	21.1	2.4	12.6	7.1	14.6	9.4
Queue Length 50th (ft)	2	99	15	161	0	6	7	31	9
Queue Length 95th (ft)	9	158	37	251	22	21	32	71	30
Internal Link Dist (ft)		803		1612			324		1250
Turn Bay Length (ft)	150		140		140	150		150	
Base Capacity (vph)	181	925	334	931	823	528	704	522	722
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.50	0.24	0.69	0.18	0.05	0.13	0.27	0.09

Intersection Summary
Description: N E St & W Prosperity Ave

Queues

2: N. J St./N. J St. & W Prosperity Ave./W. Prosperity Ave.

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	930	843	196	359	13	452
v/c Ratio	0.86	0.67	0.53	0.25	0.03	0.33
Control Delay (s/veh)	23.1	14.8	18.6	8.0	9.9	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.1	14.8	18.6	8.0	9.9	9.0
Queue Length 50th (ft)	114	95	43	25	2	35
Queue Length 95th (ft)	#220	145	98	48	10	63
Internal Link Dist (ft)	1612	871		556		1340
Turn Bay Length (ft)			200		190	
Base Capacity (vph)	1121	1299	367	1419	402	1355
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.65	0.53	0.25	0.03	0.33

Intersection Summary

Description: N J St & W Prosperity Ave

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Appendix H - VMT Analysis Screening

February 5, 2025

Michael W. Miller, City Engineer
City of Tulare
411 E. Kern Ave.
Tulare, CA 93274
Via email: mmiller@tulare.ca.gov

Subject: VMT Analysis Memorandum for Proposed Santa Fe West Subdivision
City of Tulare, CA

This memorandum provides a vehicle miles traveled (VMT) analysis for the proposed Santa Fe West Subdivision (Project) residential development in the City of Tulare. The analysis was conducted in accordance with the requirements for transportation analysis under the California Environmental Quality Act (CEQA). The City of Tulare provided guidance on the preparation of VMT analyses in a memorandum dated June 26, 2020, which can be found as an attachment to this memorandum.

Background Information

Senate Bill 743 (SB 743) replaced level of service (LOS) for vehicle miles traveled (VMT) as the new performance measure used in CEQA transportation analysis. Land development projects are compared to various screening criteria and significance thresholds to determine if the level of VMT for the given project would be deemed to have significant impacts.

VMT Screening

The City of Tulare's VMT guidance memorandum provides a list of six types of projects that would qualify for screen out of VMT analysis because they are expected to cause less than significant impacts. Of the six project types (see attachment), the initial five would not apply to the proposed Project. The sixth, map-based screening was investigated further as part of this memorandum.

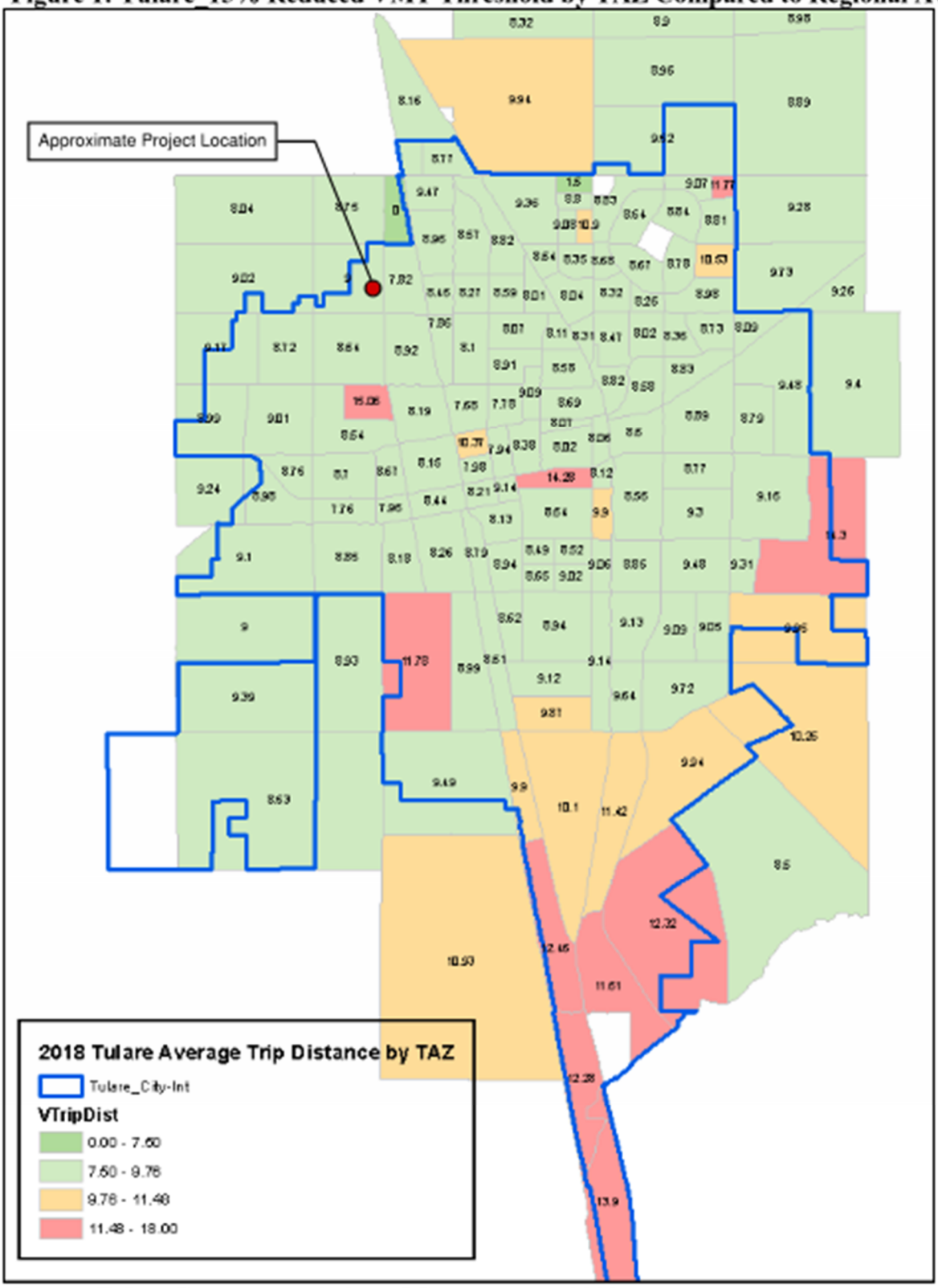
The City's VMT guidance memorandum includes a map showing the average trip distance by traffic analysis zone (TAZ), which is based on data provided by the

regional transportation model maintained by the Tulare County Association of Goverments (TCAG). If a project has an average trip distance that is 15% below the regional average, the project is considered to be in a low VMT area and is screened out from VMT analysis and mitigation.

As discussed in the City's VMT guidance memorandum, typically a project shown in a green TAZ in Figure 1 below is likely to meet acceptability thresholds unless there are specific project characteristics that would result in an overall increase in VMT. That is not anticipated for the proposed Project. For general residential projects, the recommended threshold for the City of Tulare is if a project has an average trip distance that is 15% below existing regional average trip length. Per the City's VMT guidance memorandum, the County average trip distance in miles traveled is 11.48.

Figure 1 below shows the approximate Project location on the City's TAZ map. The average trip distance within this TAZ is 9.0 miles. The Project's average trip distance of 9.0 miles is 21.6% below the County's average trip distance in miles traveled (11.48 miles), so the screen out criteria of at least 15% below the regional average is met.

Figure 1: Tulare_15% Reduced VMT Threshold by TAZ Compared to Regional Average



Source: Tulare County Association of Governments, 2020.

Summary and Conclusion

The proposed Project is screened out of the requirement to conduct a VMT analysis on the basis of map-based screening. The Project has a less than significant impact and no mitigation measures are required.

Respectfully,

Lisa Wallis-Dutra, PE 71262, TE 1888, PTOE, RSP$_{I}$
Senior Traffic Engineer

Job No: 240767